Tuesday, March 02, 2010

REQUEST NUMBER: 10-2198

TURNAROUND/REPORT DUE: 4/1/2010

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
	EPA:300.0	1	RE36-10-8292	R	2/25/2010	
	EPA:901.1	1	RE36-10-8292	R	2/25/2010	
	EPA:906.0	1	RE36-10-8292	R	2/25/2010	
	HASL-300:AM-241	1	RE36-10-8292	R	2/25/2010	
	HASL-300:ISOPU	1	RE36-10-8292	R	2/25/2010	
	HASL-300:ISOU	1	RE36-10-8292	R	2/25/2010	
	SW-846:6010B	1	RE36-10-8292	R	2/25/2010	
	SW-846:6020	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:6850	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:7470A	1	RE36-10-8294	W	2/25/2010	
	SW-846:7471A	1	RE36-10-8292	R	2/25/2010	
	SW-846:8082	1	RE36-10-8292	R	2/25/2010	
	SW-846:8260B	1	RE36-10-8292	R	2/25/2010	
	SW-846:8270C	1	RE36-10-8292	R	2/25/2010	
	SW-846:8321A_MOD	1	RE36-10-8292	R	2/25/2010	
	SW-846:9012A	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:9045C	1	RE36-10-8292	R	2/25/2010	

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2198C

REQUEST NUMBER: 10-2198

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/1/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8292	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8292	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8292	1	POLY	AM241+GS+ISOPU+ ISOU	None	R
RE36-10-8292	1	POLY	H3	Ice	R
RE36-10-8292	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8292	1	POLY	Perchlorate+CN+N03+ pH	Ice	R
RE36-10-8294	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-8294	1	POLY	SW-846:6850	Ice	W
RE36-10-8294	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time
	3/2/10	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: 2505 **EVENT NAME:** 4th Qtr. FY09 - SWMU C-36-003 - Threemile Canyon

SAMPLE ID: RE36-10-8292 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	OBT3	tjm 2/25/10 ~~AIIH~~ SED
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	C-36-003	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	36-610828	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	SED	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+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	METALS+U-GEL	125 ML POLY	Ice	Y	
1	↓	Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE36-10-8287
moist brown silty sand, roots, leaves, rocks

SAMPLE COMMENTS:
NA

LOCATION DESC:
8-36

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 10 **dpm**
Beta/Gamma ≤ 1564 **dpm**

PID ~~**Ambient Reading**~~ = **ppm** tjm 2/25/10

COLLECTED BY (PRINT) Thomas Farmer

REVIEWED BY (PRINT) J. Branch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sherri Henwood	2/25/10
(Signature) [signature]	1530	(Signature) Sherri Henwood	1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505 **EVENT NAME:** 4th Qtr. FY09 - SWMU C-36-003 - Threemile Canyon

SAMPLE ID: RE36-10-8294 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1039	SUB-MEDIA:	OTHER	
PRS ID:	C-36-003	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	36-610822	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	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	Normal	SW-846:6850	250 ML POLY	Ice	Y	
1	Normal	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE36-10-8275

SAMPLE COMMENTS:
Rinsate

LOCATION DESC:
NA

FIELD SCREENING/MEASUREMENT RESULTS:
NA

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** J. Branch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch (Signature) [signature]	2/25/10 1530	(Printed Name) Sherri Henwood (Signature) Sherri Henwood	2/25/10 1530
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00076	Request or PO Number:	
Client Sample ID:	RE36-10-8292	ARS Sample ID:	ARS2-10-00076-035
Sample Collection Date:	02/25/10 09:00	Date Received:	02/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	03/01/10 13:37

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	126.36	49.09	27.27	51.47		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	94.91	22.62	18.40	25.43		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	0.04	0.16	0.13	0.16		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	18.59	8.11	1.46	8.13		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.30	0.23	0.11	0.23		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.08	0.39	0.17	0.39		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.15	0.32	0.37	0.32		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.03	0.49	0.17	0.50		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.15	0.93	0.35	0.94		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	-0.62	229.41	0.51	229.41		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	6.30	4.11	1.62	4.35		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.00	-0.11	0.07	-0.11		pCi/g	EOA 901.1M	2/27/2010	NP	N/A

NOTES: % Moisture: 3.76

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485 **EVENT NAME:** 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7501 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	TUFF 1	NA
PRS ID:	36-008	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	36-610623	↓	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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, roots, tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 8-29

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 23 dpm
Beta/Gamma = 1746 dpm

PID ~~Ambient Reading~~ = ppm 13m 2/25/10

COLLECTED BY (PRINT) TLMcFarlang

REVIEWED BY (PRINT) J. Branch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sherri Sherwood	2/25/10
(Signature) [signature]	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485 **EVENT NAME:** 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7524 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	QBT3	SED
TIME COLLECTED (HH:MM)		1115	SUB-MEDIA:	TUFF 1	NA
PRS ID:	36-008	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	36-610581	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	SED	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
		13m 2/25/10				
1	normal	~~8082~~+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE36-10-7437

Brown loamy silt, roots

SAMPLE COMMENTS:

LOCATION DESC: 8-38

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 58 **dpm**
Beta/Gamma ≤ 1785 **dpm**

PID $\frac{\text{Ambient}}{\text{Reading}}$ = **ppm**

COLLECTED BY (PRINT) Th McFarland

REVIEWED BY (PRINT) J. Branch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sherri Sherwood	2/25/10
(Signature) [signature]	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485 **EVENT NAME:** 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7525 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1345	SUB-MEDIA:	TUFF 1	N/A
PRS ID:	36-008	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	36-610597	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	
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+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice		
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None		
1		H3	500 ML POLY	Ice		
1		METALS+U-GEL	125 ML POLY	Ice		
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC: QC Sample of RE36-10-7449

Brown, moist, silty soil w/roots & organics

SAMPLE COMMENTS:

N/A

LOCATION DESC: 8-40

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 29 **dpm**
Beta/Gamma ≤ 1790 **dpm**

PID ~~**Ambient Reading**~~ JB 2/25/10 = **ppm**

COLLECTED BY (PRINT) J. Branch

REVIEWED BY (PRINT) L. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sharon Sherwood	2/25/10
(Signature) [signature]	1530	(Signature) [signature]	1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485 **EVENT NAME:** 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7536 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1216	SUB-MEDIA:	OTHER	
PRS ID:	36-008	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	36-610592	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	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	normal	SW-846:6850	250 ML POLY	Ice	Y	
1	normal	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE36-10-7440

SAMPLE COMMENTS:

LOCATION DESC: 8-39

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) ThMcFarland **REVIEWED BY (PRINT)** J. Branch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch (Signature) [signature]	2/25/10 1530	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/25/10 1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485 **EVENT NAME:** 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7537 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1300	SUB-MEDIA:	OTHER	
PRS ID:	36-008	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	36-610596	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	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	normal	SW-846:6850	250 ML POLY	Ice	Y	
1	normal	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE36-10-7448

SAMPLE COMMENTS:

LOCATION DESC: 8-42

FIELD SCREENING/MEASUREMENT RESULTS:
NA

COLLECTED BY (PRINT) J. Branch **REVIEWED BY (PRINT)** L. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch (Signature) [signature]	2/25/10 1530	(Printed Name) Sherri Sherwood (Signature) [signature]	2/25/10 1530
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485 **EVENT NAME:** 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7543 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	OTHER	
PRS ID:	36-008	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	36-610596	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	N/A	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~ 1	~~Rto~~ Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	y	

SAMPLE DESC: QC Sample of RE36-10-7447

SAMPLE COMMENTS:
FTB

LOCATION DESC:
NA

FIELD SCREENING/MEASUREMENT RESULTS:
NA

COLLECTED BY (PRINT) J. Branch **REVIEWED BY (PRINT)** L. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sherri Henwood	2/25/10
(Signature) [signature]	1530	(Signature) [signature]	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2198 VALIDATION DATE: 5/6/10 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): GCMS VOC

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 ICAL and/or CCV RRFs were <0.05 for trichlorotrifluoroethane. The associated sample result was an ND and, thus, was qualified R,V7b.
2. In the FTB (sample RE36-10-8295 from RN 10-2199) associated with the field sample, acetone was detected. The associated sample result was an ND and, thus, was not qualified.
3. The ICV and/or CCV %Ds were >20% for acetone, 2-hexanone, and trichlorotrifluoroethane. The associated sample results were NDs and, thus, were qualified UJ,V7c.
4. The bromofluorobenzene surrogate %R was > the laboratory UAL in the sample. The results for toluene and 4-isopropyltoluene were detects and, thus, were qualified J+,V3b. All other associated sample results were NDs and, thus, were not qualified.
5. It should be noted that the MS and MSD parent sample was from another LANL RN and trichlorotrifluoroethane was not represented in the MS/MSD analyses. Since an MS/MSD was not required, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 5/7/10

VALIDATOR'S SIGNATURE: DATE: 5/6/10

DATA VALIDATION COVER SHEET	
5114-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) 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, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☒	☐	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) 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
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	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, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) 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 IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☒	☐	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. 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, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2198	**Date Collected:**	02/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	248517001	**Date Received:**	03/03/2010 08:50	**%Moisture:**	22.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE36-10-8292	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	963809	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/11/2010 13:45	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/11/2010 10:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031110V5\5B417.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.436	1.28	
74-87-3	Chloromethane	U	1.28	ug/kg	0.385	1.28	
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.385	1.28	
74-83-9	Bromomethane	U	1.28	ug/kg	0.385	1.28	
75-00-3	Chloroethane	U	1.28	ug/kg	0.385	1.28	
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.385	1.28	
67-64-1	Acetone	U	6.42	ug/kg	2.13	6.42	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.385	1.28	
74-88-4	Iodomethane	U	6.42	ug/kg	2.05	6.42	
75-09-2	Methylene chloride	U	6.42	ug/kg	2.57	6.42	
75-15-0	Carbon disulfide	U	6.42	ug/kg	1.60	6.42	
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28	
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.385	1.28	
78-93-3	2-Butanone	U	6.42	ug/kg	1.93	6.42	
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28	
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28	
67-66-3	Chloroform	U	1.28	ug/kg	0.385	1.28	
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.424	1.28	
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.385	1.28	
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.385	1.28	
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.385	1.28	
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.385	1.28	
71-43-2	Benzene	U	1.28	ug/kg	0.385	1.28	
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.424	1.28	
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28	
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.385	1.28	
74-95-3	Dibromomethane	U	1.28	ug/kg	0.385	1.28	
108-10-1	4-Methyl-2-pentanone	U	6.42	ug/kg	1.60	6.42	
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28	
108-88-3	Toluene		1.28	ug/kg	0.385	1.28	J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28	
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.385	1.28	
591-78-6	2-Hexanone	U	6.42	ug/kg	1.93	6.42	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.385	1.28	
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.385	1.28	
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.385	1.28	
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.385	1.28	
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.385	1.28	

LMF
5/6/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2198	**Date Collected:**	02/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	248517001	**Date Received:**	03/03/2010 08:50	**%Moisture:**	22.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE36-10-8292	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	963809	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/11/2010 13:45	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/11/2010 10:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031110V5\5B417.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.385	1.28	
179601-23-1	m,p-Xylenes	U	2.57	ug/kg	0.385	2.57	
95-47-6	o-Xylene	U	1.28	ug/kg	0.385	1.28	
100-42-5	Styrene	U	1.28	ug/kg	0.385	1.28	
75-25-2	Bromoform	U	1.28	ug/kg	0.385	1.28	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28	
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.385	1.28	
108-86-1	Bromobenzene	U	1.28	ug/kg	0.385	1.28	
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.385	1.28	
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.385	1.28	
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.385	1.28	
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28	
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.385	1.28	
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.385	1.28	
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28	
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.385	1.28	
99-87-6	4-Isopropyltoluene		2.57	ug/kg	0.385	1.28	J+,V3b
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28	
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28	
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.385	1.28	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.385	1.28	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.42	ug/kg	2.05	6.42	R,V7b
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28	
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28	

Tentatively Identified Compound Summary

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

LMF
5/6/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2198 VALIDATION DATE: 5/6/10 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): GC/MS SVOC

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 ICV and/or CCV %Ds were >20% for pyridine; bis(2-chloroethyl)ether; benzyl alcohol; bis(2-chloroisopropyl)ether; m,p-cresols; 2,4-dimethylphenol; 2-nitroaniline; 2,4-dinitrophenol; and 2-methyl-4,6-dinitrophenol. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %Rs were < the laboratory LALs but ≤10% for benzyl alcohol and 2,4-dimethylphenol. The associated sample results were NDs and, thus, were qualified UJ,SV12a.
3. The MS/MSD %Rs and RPDs were outside of laboratory acceptance limits for numerous compounds. It should be noted that the MS and MSD parent sample was from another LANL RN and the raw data for the parent sample was not included in the package. Since an MS/MSD was not required, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 5/7/10

VALIDATOR'S SIGNATURE: DATE: 5/6/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) 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
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☐	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) 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
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) 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
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) 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
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. 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, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 20:12**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2113.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.5	427	
108-95-2	Phenol	U	427	ug/kg	85.5	427	
95-57-8	2-Chlorophenol	U	427	ug/kg	85.5	427	
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.5	427	
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.5	427	
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.5	427	
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7	
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427	
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427	
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427	
129-00-0	Pyrene	J	14.7	ug/kg	12.8	42.7	
110-86-1	Pyridine	U	427	ug/kg	85.5	427	UJ,SV7c
62-53-3	Aniline	U	427	ug/kg	128	427	
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.5	427	UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.5	427	
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.5	427	
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.5	427	UJ,SV7c
95-48-7	o-Cresol	U	427	ug/kg	85.5	427	
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427	UJ,SV7c
67-72-1	Hexachloroethane	U	427	ug/kg	85.5	427	
98-95-3	Nitrobenzene	U	427	ug/kg	85.5	427	
78-59-1	Isophorone	U	427	ug/kg	85.5	427	
88-75-5	2-Nitrophenol	U	427	ug/kg	85.5	427	
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	150	427	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.5	427	
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.5	427	
65-85-0	Benzoic acid	J	229	ug/kg	214	855	
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7	
106-47-8	4-Chloroaniline	U	427	ug/kg	85.5	427	
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.5	427	
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.55	42.7	
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.5	427	
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.5	427	
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.5	427	
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	427	ug/kg	85.5	427	UJ,SV7c
99-09-2	3-Nitroaniline	U	427	ug/kg	85.5	427	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2198	Date Collected:	02/25/2010 12:00	Matrix:	R
Lab Sample ID:	248517001	Date Received:	03/03/2010 08:50	%Moisture:	22.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE36-10-8292	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	963133	Inst:	MSD6.I	Dilution:	1
Run Date:	03/21/2010 20:12	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/10/2010 12:14	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6c2113.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	427	ug/kg	85.5	427	
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427	
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7	
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855	UJ,SV7c
132-64-9	Dibenzofuran	U	427	ug/kg	85.5	427	
84-66-2	Diethylphthalate	U	427	ug/kg	85.5	427	
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7	
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.5	427	
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.5	427	UJ,SV7c
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	427	ug/kg	85.5	427	
122-66-7	Azobenzene	U	427	ug/kg	85.5	427	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.5	427	
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.5	427	
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7	
120-12-7	Anthracene	U	42.7	ug/kg	8.55	42.7	
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.5	427	
206-44-0	Fluoranthene	J	16.9	ug/kg	12.8	42.7	
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.5	427	
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7	
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427	
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	427	ug/kg	85.5	427	
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.5	427	
205-99-2	Benzo(b)fluoranthene	J	14.7	ug/kg	12.8	42.7	
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7	
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7	
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7	
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7	
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.5	427	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	7.69	477	ug/kg		J
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	7.74	534	ug/kg	86	NJ

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5/6/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2198	**Date Collected:**	02/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	248517001	**Date Received:**	03/03/2010 08:50	**%Moisture:**	22.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE36-10-8292	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	963133	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 20:12	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/10/2010 12:14	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6c2113.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1000130-90-5	2-Methyl-Z,Z-3,13-octadecadienol	8.12	357	ug/kg	89	NJ
	Unknown	8.32	205	ug/kg		J
	Unknown	8.86	394	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	8.94	214	ug/kg	98	NJ
	Unknown	9.02	247	ug/kg		J
	Unknown	9.12	248	ug/kg		J
	Unknown	9.22	424	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.29	571	ug/kg	93	NJ
	Unknown	9.43	259	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	9.59	211	ug/kg	86	NJ
1000303-05-9	Pyridine, 4-[5-(2-methoxyphenyl)-[1,3,4]	9.71	263	ug/kg	90	NJ
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	9.85	2190	ug/kg	90	NJ
3386-33-2	Octadecane, 1-chloro-	9.91	320	ug/kg	95	NJ
	Unknown	10.15	859	ug/kg		J
	Unknown	10.25	386	ug/kg		J
	Unknown	10.35	541	ug/kg		J
112-95-8	Eicosane	10.63	710	ug/kg	95	NJ
	Unknown	11.57	417	ug/kg		J
	Unknown	11.61	674	ug/kg		J
	Unknown	11.9	839	ug/kg		J
	Unknown	12.32	732	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.81	453	ug/kg	95	NJ
1000214-20-7	Stigmasterol, 22,23-dihydro-	13.87	555	ug/kg	90	NJ

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DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2198 VALIDATION DATE: 5/6/10 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 aqueous LCS %R was > the laboratory UALs for perchlorate. The associated sample result was an ND and, thus, was not qualified.
2. It should be noted that the aqueous and soil MS and MSD parent samples were from other LANL RNs and the raw data for the parent samples were not included in the package. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 5/7/10

VALIDATOR'S SIGNATURE: DATE: 5/6/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate 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 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 **LC/MS/MS Perchlorate 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
☐	☒	☐	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

LC/MS/MS Perchlorate 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
☐	☒	☐	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: 962135

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE36-10-8294

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2198-1

GEL Sample ID: 248518001

Date Filtered: 08-MAR-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	17-MAR-10 05:42	per0316103a
	Perchlorate Isotope Ratio						1	17-MAR-10 05:42	per0316103a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-MAR-10 05:42	per0316103a
	Perchlorate-O(18)			0.459	ug/L		1	17-MAR-10 05:42	per0316103a

^ 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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5/6/10

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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: 963897

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE36-10-8292

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2198

GEL Sample ID: 248517001

Date Filtered: 17-MAR-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	.642	2.57	7.83	ug/kg		1	23-MAR-10 08:19	per0322104a
	Perchlorate Isotope Ratio			2.92			1	23-MAR-10 08:19	per0322104a
14797-73-0	Perchlorate-101	.642	2.57	8.14	ug/kg		1	23-MAR-10 08:19	per0322104a
	Perchlorate-O(18)			6.21	ug/kg		1	23-MAR-10 08:19	per0322104a

^ 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
5/6/10

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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: 10-2198 VALIDATION DATE: 5/6/10 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 LCS %R was <10% for tetryl. The associated sample result was an ND and, thus, was qualified R,HE12. The LCS %Rs were < the laboratory LAL but ≥10% for 4-amino-2,6-dinitrotoluene; 2-amino-4,6-dinitrotoluene; and 2,6-dinitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE12a.
2. The ICAL RRF was <0.05 but ≥0.01 for 2-amino-4,6-dinitrotoluene. The associated sample result was an ND and, thus, was qualified UJ,HE7b.
3. In a CCV associated with the sample, the %D was >20% with a positive bias for RDX. The associated sample result was an ND and, thus, was not qualified.
4. The MS %R was > the laboratory UAL for TATB. The associated sample result was an ND and, thus, was not qualified. It should be noted that the 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: ETM Level: 1 Date: 5/7/10

VALIDATOR'S SIGNATURE: DATE: 5/6/10

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 **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
☐	☒	☐	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 **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
☐	☒	☐	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 **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
☐	☐	☒	**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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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8292

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 248517001

Sample Amount 2

Moisture: 22.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415071.wiff

Date Analyzed: 16-APR-10 16:24

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	UJ,HE12a	500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	R,HE12	500	U
606-20-2	2,6-Dinitrotoluene	UJ,HE12a	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 =

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

LMF
5/6/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8292

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 248517001

Sample Amount 2

Moisture: 22.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090053.wiff

Date Analyzed: 09-APR-10 20:51

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 =

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

LMF
5/6/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2198 VALIDATION DATE: 5/6/10 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):

1. The MSD %Rs and the MS/MSD RPDs were outside of laboratory acceptance criteria. It should be noted that the MS and MSD parent sample was from another LANL RN and the raw data for the parent sample was not included in the package. Since an MS/MSD was not required, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 5/7/10

VALIDATOR'S SIGNATURE: DATE: 5/6/10

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. 1952

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

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
☐	☐	☒	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

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
☐	☐	☒	**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:	10-2198	**Date Collected:**	02/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	248517001	**Date Received:**	03/03/2010 08:50	**%Moisture:**	22.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE36-10-8292	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	966420	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	03/19/2010 14:14	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/18/2010 10:57	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	1 CLP1	**Level:**	LOW
	035b3501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.28	ug/kg	1.42	4.28	1
11104-28-2	Aroclor-1221	U	4.28	ug/kg	1.42	4.28	1
11141-16-5	Aroclor-1232	U	4.28	ug/kg	1.42	4.28	1
53469-21-9	Aroclor-1242	U	4.28	ug/kg	1.42	4.28	1
12672-29-6	Aroclor-1248	U	4.28	ug/kg	1.42	4.28	1
11097-69-1	Aroclor-1254	U	4.28	ug/kg	1.42	4.28	1
11096-82-5	Aroclor-1260	U	4.28	ug/kg	1.42	4.28	1

LMF
5/6/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2198 VALIDATION DATE: 5/6/10 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 MB, K was detected. The associated sample result was a detect >50X the MB concentration and, thus, was not qualified, based on professional judgment.
2. In the aqueous ICB and/or CCBs, K and Tl were detected. The associated sample result for K was a detect ≤5X the greatest blank concentration and, thus, was qualified U,I4b. The associated sample result for Tl was an ND and, thus, was not qualified. In the soil ICB and/or CCBs, Ag and K were detected. The associated sample results were detects >5X the greatest blank concentrations and, thus, were not qualified.
3. In the FR blank (sample RE36-10-8294) associated with the field sample, Na was detected. The associated sample result was a detect ≤5X the FR blank concentration and, thus, was qualified U,I4d.
4. The soil MS %R was < the laboratory LAL but ≥10% for Na. The associated sample result was qualified ND from FR blank contamination and, thus, was qualified UJ,I6a. The soil MS %Rs were > the laboratory UAL for Ba, Ca, Pb, Mg, K, and Zn. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs were also > the laboratory UAL for Al, Fe, and Mn. However, the associated parent sample results were >4X the spike concentrations and, thus, no sample results were qualified, based on professional judgment.
5. The soil duplicate RPD was >35% for Ca, and both the duplicate and parent sample results were ≥5X the PQL. The associated sample result was a detect and, thus, was qualified J,I10a.
6. It should be noted that the aqueous and soil matrix QC parent samples were from other LANL RNs. No sample results were qualified as a result.

Reviewed by: ETM Level: 1 Date: 5/7/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

VALIDATOR'S SIGNATURE: _____ DATE: 5/6/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

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
☐	☒	☐	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 EST. 1943

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 **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
☐	☐	☒	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: 10-2198-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248518001 **BASIS:** As Received **DATE COLLECTED** 25-FEB-10

CLIENT ID: RE36-10-8294 **LEVEL:** Low **DATE RECEIVED** 03-MAR-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	03/30/10 17:51	033010B-1	962580
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 09:38	100412-7	962585
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/30/10 17:51	033010B-1	962580
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/30/10 17:51	033010B-1	962580
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	04/12/10 21:49	100412-2	962585
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/30/10 17:51	033010B-1	962580
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	PRB	04/12/10 21:49	100412-2	962585
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 08:14	031310W1-8	964196
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-09-7	Potassium U,I4b	241	ug/L		50	150	150	1	P	HSC	03/30/10 17:51	033010B-1	962580
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-23-5	Sodium	238	ug/L	J	100	300	300	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/30/10 17:51	033010B-1	962580

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962580	962579	SW846 3005A	50	mL	50	mL	03/15/10	BCD1
962585	962584	SW846 3005A	50	mL	50	mL	03/15/10	BCD1
964196	964195	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3

LMF
5/6/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2198 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248517001 **BASIS:** Dry Weight **DATE COLLECTED** 25-FEB-10

CLIENT ID: RE36-10-8292 **LEVEL:** Low **DATE RECEIVED** 03-MAR-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	3420000	ug/Kg		8130	23900	23900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-36-0	Antimony	1200	ug/Kg	U	394	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-38-2	Arsenic	0.952	mg/kg	J	0.247	1.24	1.24	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-39-3	Barium J+,I6b	54800	ug/Kg		120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-41-7	Beryllium	0.350	mg/kg		0.0247	0.124	0.124	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-43-9	Cadmium	598	ug/Kg	U	120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-70-2	Calcium J+,I6b	1940000	ug/Kg		9560	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-47-3	Chromium	15300	ug/Kg		179	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-48-4	Cobalt	1960	ug/Kg		179	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-50-8	Copper	4800	ug/Kg		359	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-89-6	Iron	6780000	ug/Kg		9560	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-92-1	Lead J+,I6b	7840	ug/Kg		299	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-95-4	Magnesium J+,I6b	807000	ug/Kg		10200	35900	35900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-96-5	Manganese	424000	ug/Kg		239	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-97-6	Mercury	56.7	ug/kg		4.9	14.4	14.4	1	AV	JXL1	03/16/10 14:07	031610S1-3	964741
7440-02-0	Nickel	2.31	mg/kg		0.124	0.495	0.495	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-09-7	Potassium J+,I6b	912000	ug/Kg		7650	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7782-49-2	Selenium	1.24	mg/kg	U	0.618	1.24	1.24	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-22-4	Silver	3690	ug/Kg		120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-23-5	Sodium U,I4d	56300	ug/Kg		8370	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-28-0	Thallium	0.247	mg/kg	U	0.0742	0.247	0.247	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-61-1	Uranium	0.748	mg/kg		0.0163	0.0495	0.0495	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-62-2	Vanadium	7770	ug/Kg		120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-66-6	Zinc J+,I6b	31900	ug/Kg		394	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962569	962563	SW846 3050B	0.519	g	50	mL	03/16/10	AXG2
962575	962573	SW846 3050B	0.537	g	50	mL	03/16/10	AXG2
964741	964740	SW846 7471A Prep	0.535	g	30	mL	03/15/10	TXB3

LMF
5/6/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2198 VALIDATION DATE: 5/7/10 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 matrix QC analyses were performed on parent samples from other LANL RNs. It should also be noted that the soil matrix QC for all analyses except total CN were performed on parent samples from other LANL RNs. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 5/7/10

VALIDATOR'S SIGNATURE: DATE: 5/7/10

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 EST. 1943

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 NQ, NQ (no qualification)

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: March 24, 2010

Client SDG: 10-2198-1

Client Sample ID:	RE36-10-8294	Project:	LANL01004
Sample ID:	248518001	Client ID:	LANL010
Matrix:	W		
Collect Date:	25-FEB-10 12:00		
Receive Date:	03-MAR-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 03/08/10	1058	958168	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/05/10	1535	958167

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
5/7/10

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: March 27, 2010

Client SDG: 10-2198

Client Sample ID: RE36-10-8292
Sample ID: 248517001
Matrix: R
Collect Date: 25-FEB-10 12:00
Receive Date: 03-MAR-10
Collector: Client
Moisture: 22.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 19.2C	H	6.69	0.010	0.100	SU	1	TXT1 03/05/10	1728	961560	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	257	79.4	292	ug/kg	1	AXC2 03/11/10	1703	961286	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		3.28	0.385	1.28	mg/kg	1	GXM 03/25/10	0925	968241	3
							3			

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/24/10	1411	968239
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1418	961285

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

LMF
5/7/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2198 VALIDATION DATE: 5/7/10 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. All gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. In the duplicate sample, the laboratory also rejected several results. No sample data were qualified as a result.
2. The alpha spec Pu-236 tracer %R was > the laboratory UAL but ≤125% in the duplicate sample. This was a QC sample and, thus, no sample data were qualified.
3. It should be noted that an MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria, thus, no sample data were qualified.
4. It should be noted that the matrix QC for all analyses were performed on a parent sample from another LANL RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 5/7/10

VALIDATOR'S SIGNATURE: DATE: 5/7/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad 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, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	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, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	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, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad 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
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☒	☐	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. 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.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad 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 associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. 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. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. 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, R19	J, R, R19
☒	☐	☐	27. Quantification 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

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

Report Date: March 30, 2010

Client Sample ID:	RE36-10-8292	Project:	LANL01004
Sample ID:	248517001	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-FEB-10		
Receive Date:	03-MAR-10		
Collector:	Client		
Moisture:	22.1%		

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-3.90E-05		0.0202	+/-0.00138	0.050	pCi/g		MXE1	03/25/10	2212	965494	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00572		0.0253	+/-0.00332	0.050	pCi/g		MXE1	03/25/10	1840	965495	3
Plutonium-239/240	U	0.0114		0.0214	+/-0.00472	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.947		0.113	+/-0.093	0.100	pCi/g		MXE1	03/27/10	1301	965496	4
Uranium-235/236		0.0744		0.0691	+/-0.0212	0.100	pCi/g						
Uranium-238		1.07		0.0796	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0144		0.296	+/-0.0951	0.200	pCi/g		MXR1	03/19/10	2041	961099	5
Bismuth-211	UI	4.69	R,R5a	0.291	+/-0.250		pCi/g						
Bismuth-214		1.32		0.0941	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	3.72	R,R5a	1.26	+/-0.566		pCi/g						
Cerium-139	U	0.0105		0.0469	+/-0.0134	0.050	pCi/g						
Cesium-134	U	0.0538		0.075	+/-0.0211	0.100	pCi/g						
Cesium-137		0.331		0.0489	+/-0.0388	0.100	pCi/g						
Cobalt-60	U	-0.00675		0.0527	+/-0.0165	0.100	pCi/g						
Europium-152	U	-0.0384		0.136	+/-0.0495	0.200	pCi/g						
Lanthanum-140	U	0.0153		0.172	+/-0.0512		pCi/g						
Lead-212		1.78		0.0849	+/-0.0828	0.100	pCi/g						
Lead-214		1.70		0.106	+/-0.102	0.100	pCi/g						
Mercury-203	U	0.0253		0.066	+/-0.022	0.100	pCi/g						
Potassium-40		28.5		0.420	+/-1.31	1.00	pCi/g						
Radium-223	U	0.101		0.961	+/-0.334		pCi/g						
Radium-224	UI	4.41	R,R5a	0.908	+/-0.469		pCi/g						
Radium-226		1.32		0.0941	+/-0.102		pCi/g						
Radium-228		1.88		0.199	+/-0.200	0.500	pCi/g						
Ruthenium-106	U	0.221		0.472	+/-0.138	0.800	pCi/g						

LMF
5/7/10

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

Report Date: March 30, 2010

Client Sample ID: RE36-10-8292
Sample ID: 248517001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Sodium-22	U	-0.0275		0.0647	+/-0.0208	0.080	pCi/g						
Strontium-85	UI	0.110	R,R5a	0.0684	+/-0.0201		pCi/g						
Thallium-208		0.544		0.0451	+/-0.0395	0.080	pCi/g						
Thorium-227	U	-0.0655		0.363	+/-0.111		pCi/g						
Thorium-231	U	0.101		0.961	+/-0.334		pCi/g						
Thorium-234		3.50		2.34	+/-1.32	2.00	pCi/g						
Tin-113	U	-0.0128		0.0654	+/-0.0196	0.100	pCi/g						
Uranium-235	U	-0.0863		0.319	+/-0.101	0.500	pCi/g						
Yttrium-88	U	0.0289		0.060	+/-0.0166	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium	U	44.8		172	+/-49.9	250	pCi/L		GXR1	03/26/10	1159	964063	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	91.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	69.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-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.

LMF
5/7/10

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2198C

REQUEST NUMBER: 10-2198

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/1/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248517, 248518

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8292	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8292	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8292	1	POLY	AM241+GS+ISOPU+ ISOU	None	R
RE36-10-8292	1	POLY	H3	Ice	R
RE36-10-8292	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8292	1	POLY	Perchlorate+CN+N03+ pH	Ice	R
RE36-10-8294	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-8294	1	POLY	SW-846:6850	Ice	W
RE36-10-8294	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/2/10	3:00	Patricia Dover-Dell P. N. Dell	3/3/10	08:50
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			

Tuesday, March 02, 2010

REQUEST NUMBER: 10-2198

TURNAROUND/REPORT DUE: 4/1/2010

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
	EPA:300.0	1	RE36-10-8292	R	2/25/2010	
	EPA:901.1	1	RE36-10-8292	R	2/25/2010	
	EPA:906.0	1	RE36-10-8292	R	2/25/2010	
	HASL-300:AM-241	1	RE36-10-8292	R	2/25/2010	
	HASL-300:ISOPU	1	RE36-10-8292	R	2/25/2010	
	HASL-300:ISOU	1	RE36-10-8292	R	2/25/2010	
	SW-846:6010B	1	RE36-10-8292	R	2/25/2010	
	SW-846:6020	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:6850	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:7470A	1	RE36-10-8294	W	2/25/2010	
	SW-846:7471A	1	RE36-10-8292	R	2/25/2010	
	SW-846:8082	1	RE36-10-8292	R	2/25/2010	
	SW-846:8260B	1	RE36-10-8292	R	2/25/2010	
	SW-846:8270C	1	RE36-10-8292	R	2/25/2010	
	SW-846:8321A_MOD	1	RE36-10-8292	R	2/25/2010	
	SW-846:9012A	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:9045C	1	RE36-10-8292	R	2/25/2010	

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

March 10, 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: 248517 248518
SDG: 10-2198

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 03, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. 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,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2198
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248517 and 248518
SDG: 10-2198

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248517 and 248518
SDG # : 10-2198

March 10, 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 March 03, 2010 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was 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. The containers for radiochemistry were received at 14,15,17C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248517001	RE36-10-8292
248518001	RE36-10-8294

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, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

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.

for Francis

Valerie Davis

Project Manager

List of current GEL Certifications as of 10 March 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

Thursday, March 04, 2010

LOS ALAMOS

NATIONAL LABORATORY

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2198C

REQUEST NUMBER: 10-2198

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/1/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248517, 248518

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8292	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8292	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8292	1	POLY	AM241+GS+ISOPU+ ISOU	None	R
RE36-10-8292	1	POLY	H3	Ice	R
RE36-10-8292	1	POLY	METALS+U-GEL	Ice	R
RE36-10-8292	1	POLY	Perchlorate+CN+N03+ pH	Ice	R
RE36-10-8294	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-8294	1	POLY	SW-846:6850	Ice	W
RE36-10-8294	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		3/3/10	3:00	Patricia Dover-Dell P. N. Wert		3/3/10	08:50
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

Tuesday, March 02, 2010

REQUEST NUMBER: 10-2198

TURNAROUND/REPORT DUE: 4/1/2010

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
	EPA:300.0	1	RE36-10-8292	R	2/25/2010	
	EPA:901.1	1	RE36-10-8292	R	2/25/2010	
	EPA:906.0	1	RE36-10-8292	R	2/25/2010	
	HASL-300:AM-241	1	RE36-10-8292	R	2/25/2010	
	HASL-300:ISOPU	1	RE36-10-8292	R	2/25/2010	
	HASL-300:ISOU	1	RE36-10-8292	R	2/25/2010	
	SW-846:6010B	1	RE36-10-8292	R	2/25/2010	
	SW-846:6020	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:6850	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:7470A	1	RE36-10-8294	W	2/25/2010	
	SW-846:7471A	1	RE36-10-8292	R	2/25/2010	
	SW-846:8082	1	RE36-10-8292	R	2/25/2010	
	SW-846:8260B	1	RE36-10-8292	R	2/25/2010	
	SW-846:8270C	1	RE36-10-8292	R	2/25/2010	
	SW-846:8321A_MOD	1	RE36-10-8292	R	2/25/2010	
	SW-846:9012A	1	RE36-10-8292	R	2/25/2010	
		1	RE36-10-8294	W	2/25/2010	
	SW-846:9045C	1	RE36-10-8292	R	2/25/2010	

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2198**
Received By:Patricia Dover-Dent	**Date Received: 3/3/10**

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*: **60cpm**
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 **1-5** **14,15,17**
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: **No time on Chain of Custody.**
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:

Fed Ex Tracking Numbers:

7209 7850 3083 1C 7209 7850 3061 2C 7209 7850 3028 17C
7209 7850 3040 1C 7209 7850 3072 3C
7209 7850 3094 1C 7209 7850 3120 4C
7209 7850 3109 2C 7209 7850 3110 5C
7209 7850 3039 2C 7209 7850 3153 5C
7209 7850 3050 2C 7209 7850 3006 14C
7209 7850 3142 2C 7209 7850 2992 14C
7209 7850 3131 2C 7209 7850 3071 15C

PM (or PMA) review: Initials _____ Date 3/4/10

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: 02MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

1C

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2 of 2
MPS# 0263 7209 7850 3083
Mstr# 7209 7850 3072 0201

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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: 02MAR10
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MPS# 0263 7209 7850 3109
Mstr# 7209 7850 3094 0201

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SHIPPER (505) 665-9968
JOYLENE VALDEZ
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LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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3 of 3
MPS# 0263 7209 7850 3039
Mstr# 7209 7850 3017 0201

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PRIORITY OVERNIGHT

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TA00 BLDG 1237 DPU 03

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UNITED STATES US

ACTWGT: 49.0 LB MAN
CAD: 0014178/CAFE2450

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2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR3A0532VA00

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MPS# 0263 7209 7850 3050
Mstr# 7209 7850 3040 0201

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
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2040 SAVAGE RD

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MPS# 0263 7209 7850 3142
Mstr# 7209 7850 3120 0201

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MPS# 0263 7209 7850 3131
Mstr# 7209 7850 3120 0201

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TRK# 0201 7209 7850 3061

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

SHIP DATE: 02MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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TA00 BLDG 1237-DPU-03

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UNITED STATES US

SHIP DATE: 02MAR10
ACTWGT: 27.0 LB MAN
CAD: 0014176/CAFE2450

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TRK# 0201 7209 7850 3120
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ORIGIN ID: SAFA (505) 665-9968
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TA00 BLDG 1237 DPU 03

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SHIP DATE: 02MAR10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2450

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MPS# 0283 7209 7850 3110
Mstr# 7209 7850 3094 0201

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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: 02MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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TRK# 0201 7209 7850 3153

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ORIGIN ID:
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02MAR10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2450

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14c

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3 of 3
MPS# 0263 7209 7850 3006
Mstr# 7209 7850 2981 0201

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PRIORITY OVERNIGHT

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ORIGIN ID:
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

14c

2 of 3
MPS# 0263 7209 7850 2992
Mstr# 7209 7850 2981 0201

WED - 03MAR
PRIORITY OVERN

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LOS ALAMOS NATL LAB
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ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2450

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2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR3A0532VA00

15c

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1 of 3
TRK# 0201 7209 7850 3017
MASTER

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PRIORITY OVERNIGHT

XX CHSA

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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: 02MAR10
ACTWGT: 21.0 LB MAN
CAD: 0014176/CAFE2450

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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2 of 3
MPS# 0263 7209 7850 3028
Mstr# 7209 7850 3017 0201

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PRIORITY OVERNIGHT

XX CHSA

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	963809
Prep Batch Number:	963808

Sample Analysis

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

Sample ID	Client ID
248517001	RE36-10-8292
1202067627	Method Blank (MB)
1202067630	Laboratory Control Sample (LCS)
1202067631	Laboratory Control Sample (LCS)
1202067628	248526001(RE36-10-8466) Post Spike (PS)
1202067629	248526001(RE36-10-8466) Post Spike Duplicate (PSD)

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

Preparation/Analytical Method Verification

SOP Reference

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

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

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 processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

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

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 groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

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

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Sample 248517001 (RE36-10-8292) did not pass surrogate recoveries. The sample was re-analyzed and confirmed the results. See DER 807173.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248526001 (RE36-10-8466) was designated for spike analysis.

Matrix Spike (PS) Recovery Statement
The spike recoveries were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
In sample 248517001 (RE36-10-8292), internal standard responses were outside the required acceptance criteria. The sample was re-analyzed and confirmed the results. See DER 807173.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All confirmation analyses for internal standard and/or surrogate recovery failures were performed outside of the 14 day holding time due to instrument capacity. The re-analyses were performed within two times the collection date.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 248517001 (RE36-10-8292) was re-analyzed due to unacceptable recoveries in the initial analysis.

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. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
DER # 807173 was generated for samples in this SDG.

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

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

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

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

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA5.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2198 GEL Work Order: 248517

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

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

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

Signature: Erin Haubert **Name: Erin Haubert**

Date: 29 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 13:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B417.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.436	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.385	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.385	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.385	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.385	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.385	1.28
67-64-1	Acetone	U	6.42	ug/kg	2.13	6.42
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
74-88-4	Iodomethane	U	6.42	ug/kg	2.05	6.42
75-09-2	Methylene chloride	U	6.42	ug/kg	2.57	6.42
75-15-0	Carbon disulfide	U	6.42	ug/kg	1.60	6.42
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.385	1.28
78-93-3	2-Butanone	U	6.42	ug/kg	1.93	6.42
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.385	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.424	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.385	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.385	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.385	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.385	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.385	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.424	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.385	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.385	1.28
108-10-1	4-Methyl-2-pentanone	U	6.42	ug/kg	1.60	6.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
108-88-3	Toluene		1.28	ug/kg	0.385	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.385	1.28
591-78-6	2-Hexanone	U	6.42	ug/kg	1.93	6.42
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.385	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.385	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.385	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.385	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.385	1.28

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 13:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B417.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.385	1.28
179601-23-1	m,p-Xylenes	U	2.57	ug/kg	0.385	2.57
95-47-6	o-Xylene	U	1.28	ug/kg	0.385	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.385	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.385	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.385	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.385	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.385	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.385	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.385	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.385	1.28
99-87-6	4-Isopropyltoluene		2.57	ug/kg	0.385	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.385	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.385	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.42	ug/kg	2.05	6.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28

Tentatively Identified Compound Summary

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

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2198

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202067630	LCS for batch 963808	74	82	115
1202067631	LCS for batch 963808	74	83	115
1202067627	MB for batch 963808	70	84	120
248517001	RE36-10-8292	67	101	166 *

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466PS
Lab Sample ID: 1202067628
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 12.4
Analysis Date: 03/11/2010 23:01
Prep Batch ID 963808
Batch ID: 963809

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	48.0	96	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	49.5	99	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	51.8	104	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	50.6	101	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	49.0	98	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	47.1	94	55-138
67-64-1	PS	Acetone	250	0.00	U	119	48	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	45.9	92	55-128
74-88-4	PS	Iodomethane	250	0.00	U	230	92	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	47.0	94	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	237	95	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.3	95	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	48.3	97	62-125
78-93-3	PS	2-Butanone	250	0.00	U	150	60	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	47.2	94	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	44.3	89	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	46.7	93	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	48.2	96	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	45.3	91	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	44.6	89	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	44.5	89	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	46.7	93	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466PS
Lab Sample ID: 1202067628
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: R
%Moisture: 12.4
Analysis Date: 03/11/2010 23:01
Prep Batch ID: 963808
Batch ID: 963809

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	44.8	90	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	42.7	85	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	45.7	91	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	47.4	95	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	47.8	96	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	224	90	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.9	90	50-131
108-88-3	PS	Toluene	50.0	0.00	U	41.8	84	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	45.3	91	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	44.6	89	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	154	62	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	44.9	90	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	38.2	76	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	45.2	90	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	43.9	88	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	40.1	80	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	37.5	75	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	77.2	77	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	37.8	76	51-127
100-42-5	PS	Styrene	50.0	0.00	U	39.7	79	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	50.2	100	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	44.4	89	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2198**	**Sample Type:**	**Post Spike**
Client ID:	**RE36-10-8466PS**	**Matrix:**	**R**
Lab Sample ID:	**1202067628**	**%Moisture:**	**12.4**
Instrument:	**VOA5.I**	**Analysis Date:**	**03/11/2010 23:01**
Analyst:	**CDS1**	**Prep Batch ID:**	**963808**
Purge Vol:	**5 mL**	**Batch ID:**	**963809**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	47.9	96	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	40.5	81	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	38.6	77	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	39.5	79	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	41.5	83	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	38.0	76	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	38.7	77	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	35.4	71	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	38.0	76	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	34.6	69	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	33.8	68	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	35.1	70	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	34.6	69	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	29.9	60	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	37.3	75	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	42.1	84	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	34.3	69	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466PSD
Lab Sample ID: 1202067629
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/11/2010 23:28
Dilution: 1
Prep Batch ID: 963808
Batch ID: 963809

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	46.6	93	39-148	3	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	49.2	98	42-131	0	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	50.5	101	50-127	3	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	49.4	99	26-135	2	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	47.3	95	54-128	4	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	46.3	93	55-138	2	0-21
67-64-1	PSD	Acetone	250	0.00	U	110	44	20-144	8	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	45.4	91	55-128	1	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	228	91	47-132	1	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	46.0	92	56-123	2	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	233	93	53-133	2	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	46.2	92	57-119	2	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	48.2	96	62-125	0	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	139	55	30-150	8	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	46.5	93	60-124	2	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	43.9	88	56-129	1	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	46.3	93	62-120	1	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.1	94	51-135	2	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	44.9	90	58-129	1	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	44.1	88	59-126	1	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	43.9	88	55-132	1	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	46.4	93	54-121	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466PSD
Lab Sample ID: 1202067629
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/11/2010 23:28
Prep Batch ID: 963808
Batch ID: 963809
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	44.0	88	58-120	2	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	42.5	85	54-130	1	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	45.4	91	59-121	1	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	46.9	94	57-130	1	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	46.5	93	57-124	3	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	210	84	40-137	7	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	44.5	89	50-131	1	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	41.3	83	54-119	1	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	44.5	89	47-133	2	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	43.2	86	60-130	3	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	141	56	30-139	9	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	44.1	88	59-125	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	38.3	77	50-126	0	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	44.6	89	54-131	1	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	43.0	86	55-127	2	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	39.9	80	50-130	1	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	37.5	75	50-121	0	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	77.8	78	47-125	1	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	38.3	77	51-127	1	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	39.5	79	41-136	1	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	48.2	96	48-143	4	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	43.1	86	52-129	3	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466PSD
Lab Sample ID: 1202067629
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/11/2010 23:28
Dilution: 1
Prep Batch ID: 963808
Batch ID: 963809

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	45.5	91	56-139	5	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	41.3	83	54-125	2	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	38.7	77	46-127	0	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	40.6	81	47-130	3	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	41.5	83	42-126	0	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	38.4	77	44-132	1	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	39.2	78	46-127	1	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	35.6	71	48-136	0	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	37.9	76	42-132	0	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	34.6	69	47-130	0	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	34.3	69	36-142	2	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	35.0	70	41-130	0	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	35.4	71	41-126	2	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	30.0	60	37-136	1	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	35.8	72	42-143	4	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	42.2	84	58-127	0	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	34.4	69	42-128	0	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: LCS for batch 963808
Lab Sample ID: 1202067630
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/11/2010 08:01
Dilution: 1
Prep Batch ID: 963808
Batch ID: 963809

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	58.5	117	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	54.5	109	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	58.2	116	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	54.6	109	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	54.1	108	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	58.7	117	73-143
67-64-1	LCS	Acetone	250	0.0	232	93	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	54.6	109	71-129
74-88-4	LCS	Iodomethane	250	0.0	261	104	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	51.9	104	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	282	113	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	55.0	110	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	54.7	109	73-120
78-93-3	LCS	2-Butanone	250	0.0	240	96	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	53.5	107	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	56.1	112	73-134
67-66-3	LCS	Chloroform	50.0	0.0	53.2	106	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	53.4	107	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	56.3	113	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	56.2	112	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	57.7	115	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	52.1	104	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: LCS for batch 963808
Lab Sample ID: 1202067630
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/11/2010 08:01
Dilution: 1
Prep Batch ID: 963808
Batch ID: 963809

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	51.7	103	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	53.7	107	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	52.4	105	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	55.5	111	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	53.8	108	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	256	102	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	53.4	107	78-127
108-88-3	LCS	Toluene	50.0	0.0	49.6	99	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	51.9	104	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	49.4	99	75-120
591-78-6	LCS	2-Hexanone	250	0.0	235	94	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	49.7	99	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	51.6	103	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	53.7	107	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	50.4	101	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	49.9	100	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	48.6	97	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	102	102	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	50.4	101	76-122
100-42-5	LCS	Styrene	50.0	0.0	53.2	106	75-125
75-25-2	LCS	Bromoform	50.0	0.0	54.4	109	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.7	95	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: LCS for batch 963808
Lab Sample ID: 1202067630
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/11/2010 08:01
Dilution: 1
Prep Batch ID: 963808
Batch ID: 963809

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	48.8	98	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	48.0	96	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	49.7	99	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	49.2	98	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	50.5	101	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	50.0	100	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	48.3	97	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	48.9	98	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	49.8	100	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	50.8	102	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	51.1	102	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	48.7	97	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	48.5	97	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	50.0	100	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	47.6	95	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	51.9	104	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	48.7	97	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: LCS for batch 963808
Lab Sample ID: 1202067631
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/11/2010 08:27
Dilution: 1
Prep Batch ID: 963808
Batch ID: 963809

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	336	134	67-140

Method Blank Summary

SDG Number:	10-2198	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 963808	Instrument ID:	VOA5.I	Data File:	031110V5\5B407BS2.D
Lab Sample ID:	1202067627	Prep Date:	03/11/2010 06:00	Analyzed:	03/11/10 09:20
Column:	DB-624				

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 963808	1202067630	031110V5\5B404LS2.D	03/11/10	0801
02	LCS for batch 963808	1202067631	031110V5\5B405SLS2.D	03/11/10	0827
03	RE36-10-8292	248517001	031110V5\5B417.D	03/11/10	1345

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2198

Instrument ID: VOA5.I **Injection Date/Time:** 03-MAR-10 11:00

Column Description: DB-624 **Lab File ID** 030310V5\5A301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	45.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.7
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.2
177	5.0 - 9.0% of mass 176	6.3

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W5VM100303-01	030310V5\5A303.D	03-MAR-10 11:52
ICALMIX[A]	W5VM100303-02	030310V5\5A304.D	03-MAR-10 12:18
ICALMIX[A]	W5VM100303-03	030310V5\5A305.D	03-MAR-10 12:43
ICALMIX[A]	W5VM100303-04	030310V5\5A306.D	03-MAR-10 13:09
ICALMIX[A]	W5VM100303-05	030310V5\5A307.D	03-MAR-10 13:35
ICALMIX[A]	W5VM100303-06	030310V5\5A308.D	03-MAR-10 14:01
ICALMIX[A]	W5VM100303-07	030310V5\5A309.D	03-MAR-10 14:26
ICALMIX[A]	W5VM100303-08	030310V5\5A311.D	03-MAR-10 15:18
ICVMIX[A]01	W5VM100303-10	030310V5\5A313.D	03-MAR-10 16:10
ICALMIX[B]	W5VM100303-11	030310V5\5A315.D	03-MAR-10 17:01
ICALMIX[B]	W5VM100303-12	030310V5\5A316.D	03-MAR-10 17:27
ICALMIX[B]	W5VM100303-13	030310V5\5A317.D	03-MAR-10 17:52
ICALMIX[B]	W5VM100303-14	030310V5\5A318.D	03-MAR-10 18:18
ICALMIX[B]	W5VM100303-15	030310V5\5A319.D	03-MAR-10 18:44
ICALMIX[B]	W5VM100303-16	030310V5\5A320.D	03-MAR-10 19:10
ICALMIX[B]	W5VM100303-17	030310V5\5A321.D	03-MAR-10 19:35
ICVMIX[B]02	W5VM100303-18	030310V5\5A323.D	03-MAR-10 20:27

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2198

Instrument ID: VOA5.I **Injection Date/Time:** 11-MAR-10 06:41

Column Description: DB-624 **Lab File ID** 031110V5\5B401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	46
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	78.8
175	5.0 -9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	7

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W5VM100311-01	031110V5\5B402.D	11-MAR-10 07:08
BLK01LCS	1202067630	031110V5\5B404LS2.D	11-MAR-10 08:01
CCVMIX[B]03	W5VM100311-04	031110V5\5B405.D	11-MAR-10 08:27
BLK01SLCS	1202067631	031110V5\5B405SLS2.D	11-MAR-10 08:27
BLK01	1202067627	031110V5\5B407BS2.D	11-MAR-10 09:20
RE36-10-8292	248517001	031110V5\5B417.D	11-MAR-10 13:45

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2198

Instrument: VOA5.I

STD Analysis Time: 11-MAR-10 07:08

GC Column: DB-624

Data File: C:\msdchem\1\DATA\031110V5\5B402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1428247		8.39	1072946		11.1	550065		13.4
Upper Limit	2856494		8.89	2145892		11.6	1100130		13.9
Lower Limit	714124		7.89	536473		10.6	275033		12.9
Sample ID									
BLK01LCS	1393474		8.39	1064611		11.1	553083		13.4
BLK01SLCS	1397071		8.39	1054675		11.1	537423		13.4
BLK01	1402275		8.39	1039581		11.1	502993		13.4
RE36-10-8292	1230830		8.39	660768		11.1	164969	*	13.4

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 13:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B417.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.436	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.385	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.385	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.385	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.385	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.385	1.28
67-64-1	Acetone	U	6.42	ug/kg	2.13	6.42
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
74-88-4	Iodomethane	U	6.42	ug/kg	2.05	6.42
75-09-2	Methylene chloride	U	6.42	ug/kg	2.57	6.42
75-15-0	Carbon disulfide	U	6.42	ug/kg	1.60	6.42
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.385	1.28
78-93-3	2-Butanone	U	6.42	ug/kg	1.93	6.42
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.385	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.424	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.385	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.385	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.385	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.385	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.385	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.424	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.385	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.385	1.28
108-10-1	4-Methyl-2-pentanone	U	6.42	ug/kg	1.60	6.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
108-88-3	Toluene		1.28	ug/kg	0.385	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.385	1.28
591-78-6	2-Hexanone	U	6.42	ug/kg	1.93	6.42
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.385	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.385	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.385	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.385	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.385	1.28

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 13:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B417.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.385	1.28
179601-23-1	m,p-Xylenes	U	2.57	ug/kg	0.385	2.57
95-47-6	o-Xylene	U	1.28	ug/kg	0.385	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.385	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.385	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.385	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.385	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.385	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.385	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.385	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.385	1.28
99-87-6	4-Isopropyltoluene		2.57	ug/kg	0.385	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.385	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.385	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.42	ug/kg	2.05	6.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28

Tentatively Identified Compound Summary

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

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B417.D
Acq On : 11 Mar 2010 1:45 pm
Operator : CDS1
InstName : VOA5
Sample : |248517001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 15:08:32 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.391	8.387	1.000	96	1230830	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	660768	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	164969	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1230830	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	660768	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	164969	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	199551	33.50	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 67.00%					
43) Toluene-d8	9.721	9.721	0.872	98	849129	50.25	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.50%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	274492	82.95	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 165.90%#					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583	50	354	Below Cal		79
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	946	N.D.		
9) Acetone	6.177	6.174	0.736	43	5406	N.D.		
10) 1,1-Dichloroethylene	6.160	6.156	0.734	61	116	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.457	6.464	0.769	41	493	N.D.		
13) Methyl acetate	6.358	6.365	0.758	43	107	N.D.		
14) Carbon disulfide	6.432	6.435	0.767	76	1473	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	10500	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.807	6.969	0.811	43	3566	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.454	7.450	0.888	43	394	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.921	7.924	0.944	56	124	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.204	8.203	0.978	78	1590	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	8.391	8.377	1.000	56	6556	Below Cal	#	20
34) Trichloroethylene	8.677	8.677	1.034	95	369	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B417.D
Acq On : 11 Mar 2010 1:45 pm
Operator : CDS1
InstName : VOA5
Sample : |248517001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 15:08:32 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.		
44) Toluene	9.784	9.788	0.878	91	14147	1.00	ug/L	100
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.		
47) 2-Hexanone	0.000	10.279	0.000		0	N.D.		
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.		
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.		
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.		
54) Ethylbenzene	0.000	11.181	0.000		0m	N.D.	d	
55) m,p-Xylenes	0.000	11.280	0.000		0m	N.D.	d	
56) o-Xylene	0.000	11.701	0.000		0m	N.D.	d	
57) Styrene	0.000	11.715	0.000		0	N.D.		
59) Bromoform	0.000	12.005	0.000		0	N.D.		
60) Isopropylbenzene	11.995	12.016	0.894	105	1594	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	0.000	12.465	0.000		0	N.D.		
65) n-Propylbenzene	12.419	12.415	0.926	91	1575	N.D.		
66) 1,3,5-Trimethylbenzene	12.557	12.564	0.936	105	1323	N.D.		
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.		
68) 4-Chlorotoluene	12.684	12.698	0.946	91	1195	N.D.		
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	0.000	12.956	0.000		0m	N.D.	d	
71) sec-Butylbenzene	0.000	13.119	0.000		0	N.D.		
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	13324	2.00	ug/L	87
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.		
75) n-Butylbenzene	13.646	13.653	1.017	91	495	N.D.		
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	15.619	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.		
80) Naphthalene	15.988	15.988	1.192	128	1073	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.		
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.255	6.163	0.745	45	2383	N.D.		
88) Allyl chloride	6.435	6.425	0.767	41	114	N.D.		
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.		
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.		
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.		
94) Ethyl acetate	7.443	7.383	0.887	43	114	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B417.D
Acq On : 11 Mar 2010 1:45 pm
Operator : CDS1
InstName : VOA5
Sample : |248517001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 15:08:32 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

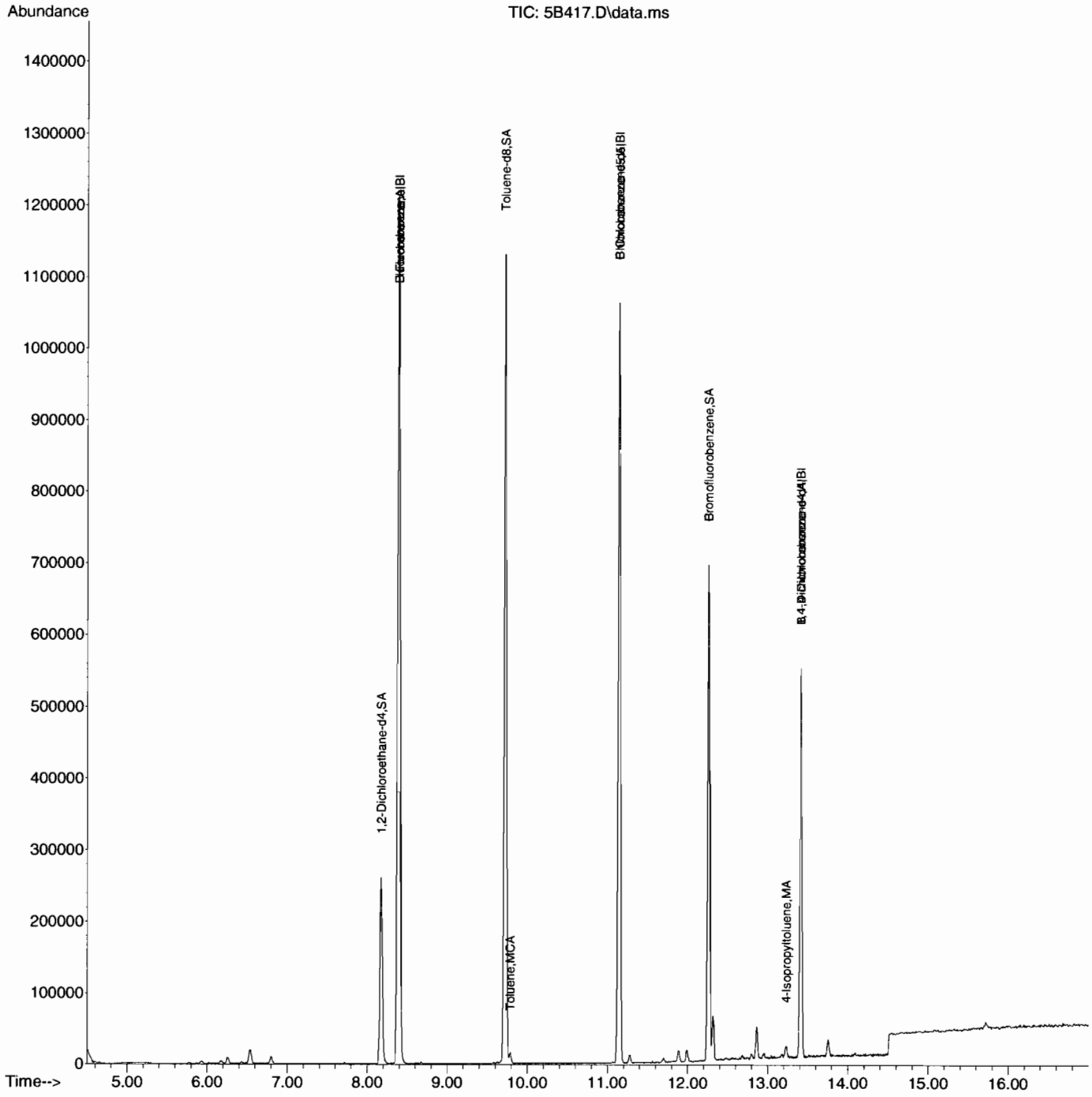
	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	7.585	0.000		0	N.D.		
96)	Methacrylonitrile	7.716	7.680	0.920	41	236	N.D.		
97)	Tetrahydrofuran	7.723	7.716	0.920	42	833	N.D.		
98)	Isobutyl alcohol	7.917	7.857	0.944	41	111	N.D.		
99)	Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	8.801	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	8.957	0.000		0	N.D.		
102)	2-Nitropropane	0.000	9.342	0.000		0m	N.D.	d	
104)	Ethyl methacrylate	0.000	9.859	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	11.998	12.136	0.895	53	398	N.D.		
108)	Cyclohexanone	12.316	12.267	0.918	42	121	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0m	N.D.	d	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.		
111)	Benzyl chloride	13.561	13.565	1.011	91	242	N.D.		
112)	bis(2-Chloroisopropyl)...	13.943	13.929	1.040	45	107	N.D.		

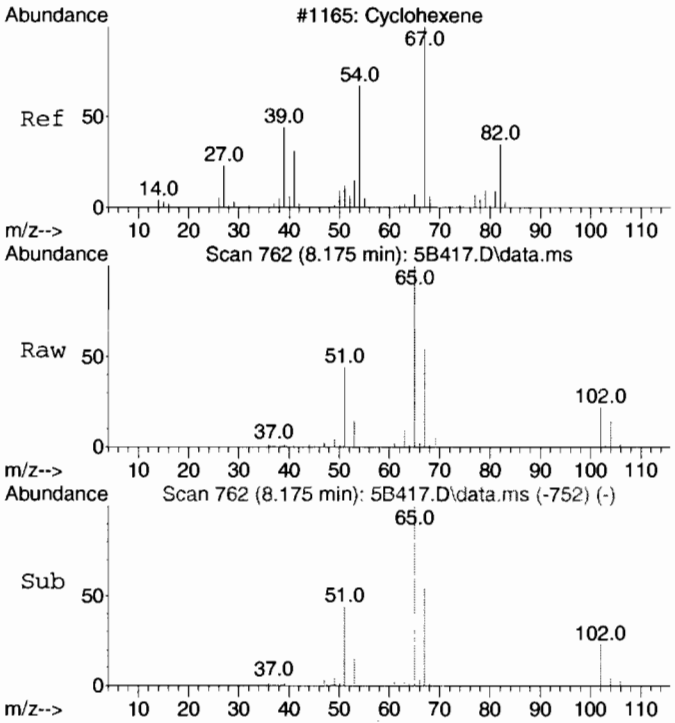
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B417.D
Acq On : 11 Mar 2010 1:45 pm
Operator : CDS1
InstName : VOA5
Sample : |248517001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 15:08:32 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

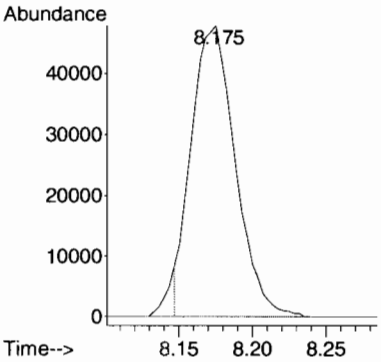


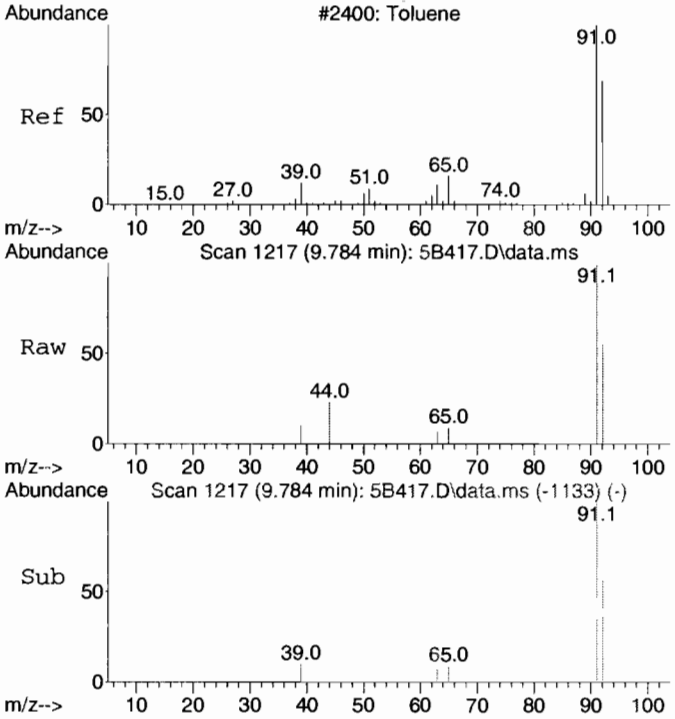


#32 BEFORE analyst DELETION
Cyclohexene
Concen: 12.02 ug/L
RT: 8.175 min Scan# 762
Delta R.T. -0.071 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion: 67 Resp: 99567

Ion	Ratio	Lower	Upper
67	100		
54	0.0	46.3	106.3#

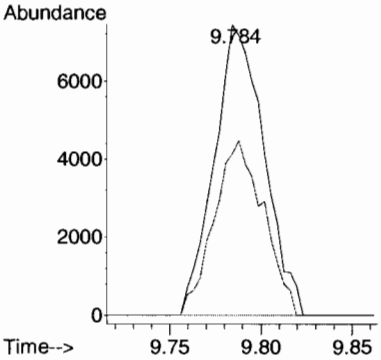


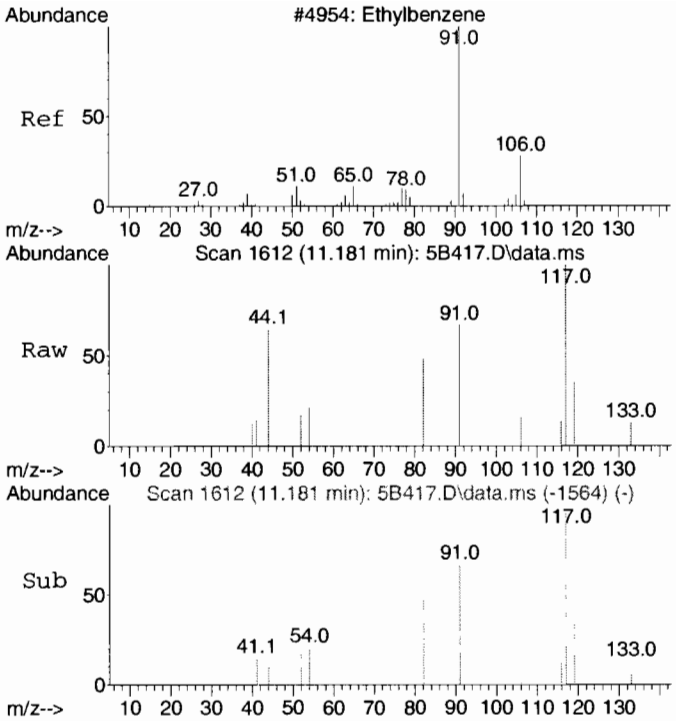


#44
Toluene
Concen: 1.00 ug/L
RT: 9.784 min Scan# 1217
Delta R.T. -0.004 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion: 91 Resp: 14147

Ion	Ratio	Lower	Upper
91	100		
92	59.6	29.5	89.5

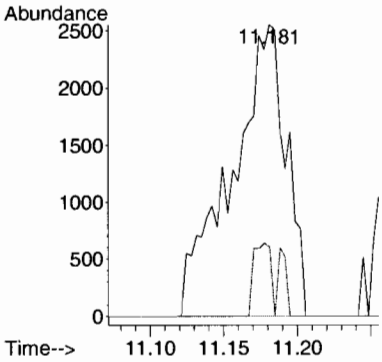


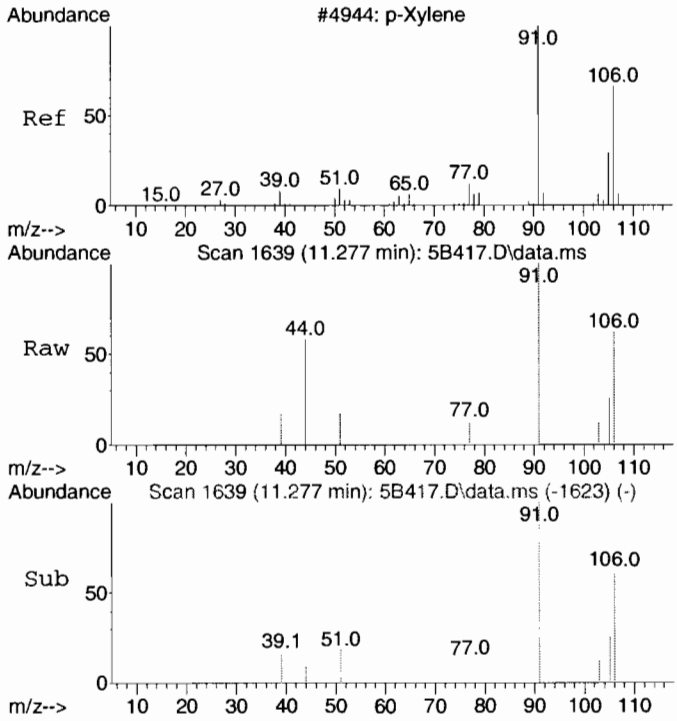


#54 BEFORE analyst DELETION
Ethylbenzene
Concen: 0.40 ug/L
RT: 11.181 min Scan# 1612
Delta R.T. 0.000 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion: 91 Resp: 6540

Ion	Ratio	Lower	Upper
91	100		
106	7.9	2.6	62.6

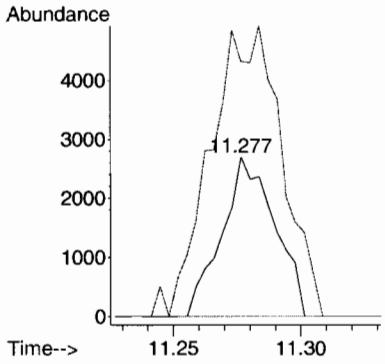


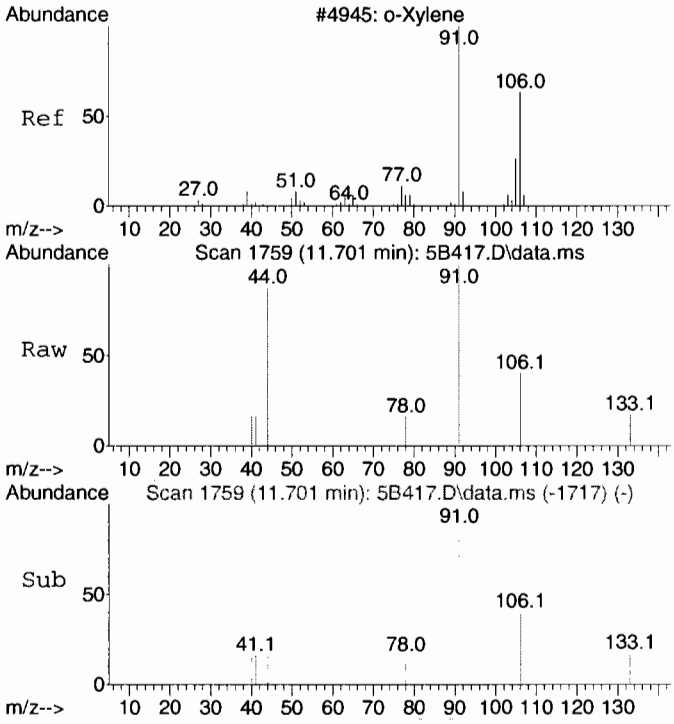


#55 BEFORE analyst DELETION
m,p-Xylenes
Concen: 0.63 ug/L
RT: 11.277 min Scan# 1639
Delta R.T. -0.003 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion:106 Resp: 3881

Ion	Ratio	Lower	Upper
106	100		
91	245.8	168.5	228.5#

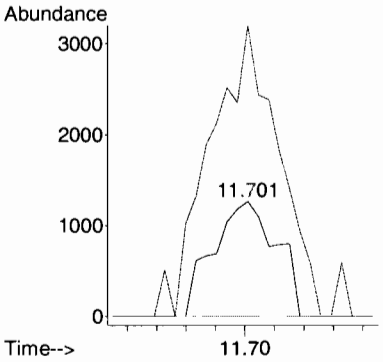


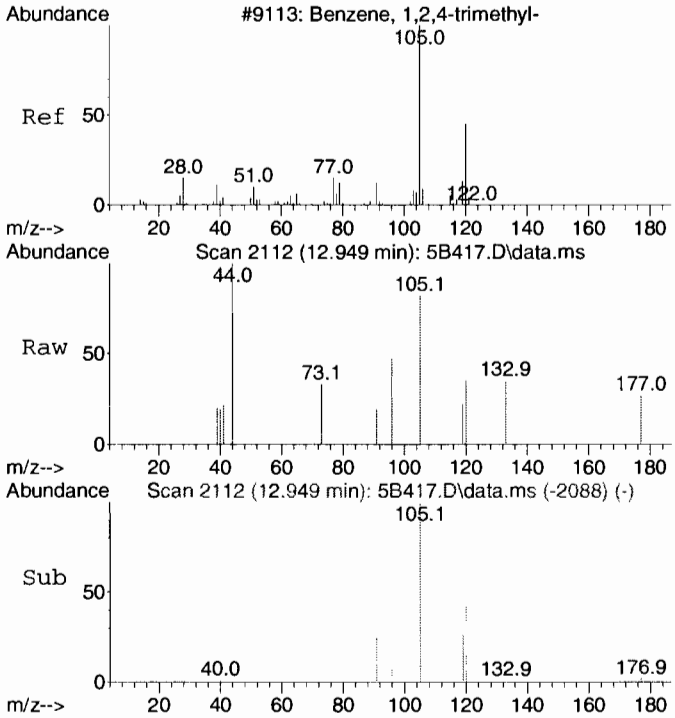


#56 BEFORE analyst DELETION
o-Xylene
Concen: 0.31 ug/L
RT: 11.701 min Scan# 1759
Delta R.T. 0.000 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion:106 Resp: 1891

Ion	Ratio	Lower	Upper
106	100		
91	274.9	179.3	239.3#

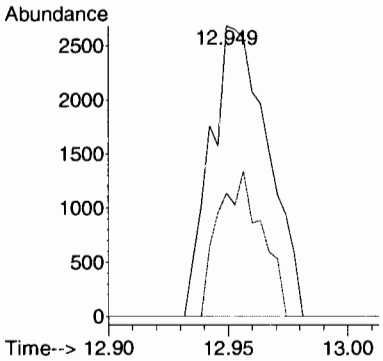


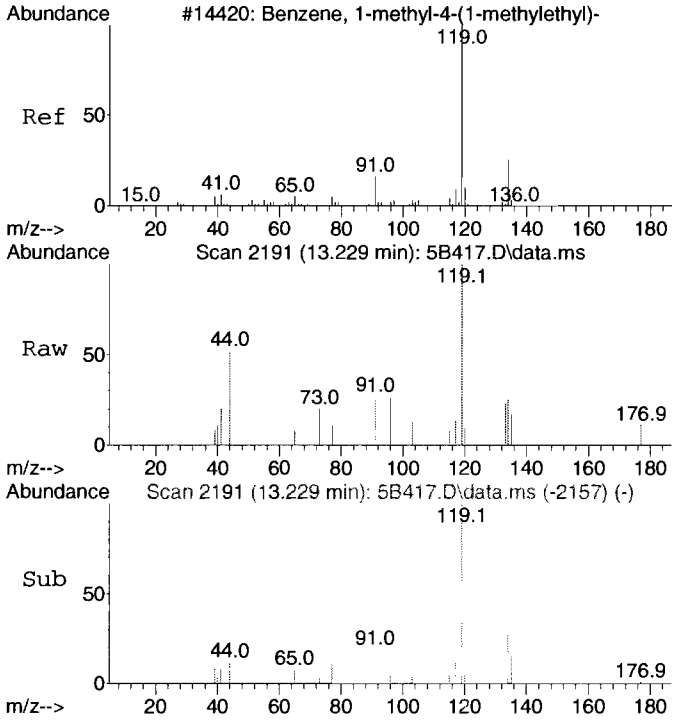


#70 BEFORE analyst DELETION
1,2,4-Trimethylbenzene
Concen: 0.68 ug/L
RT: 12.949 min Scan# 2112
Delta R.T. -0.007 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion:105 Resp: 4449

Ion	Ratio	Lower	Upper
105	100		
120	38.1	17.4	77.4

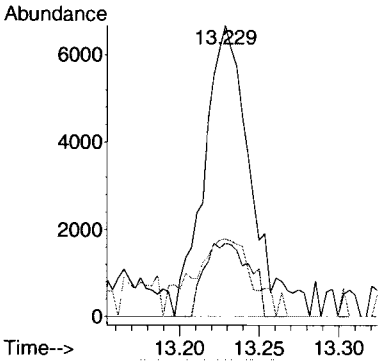


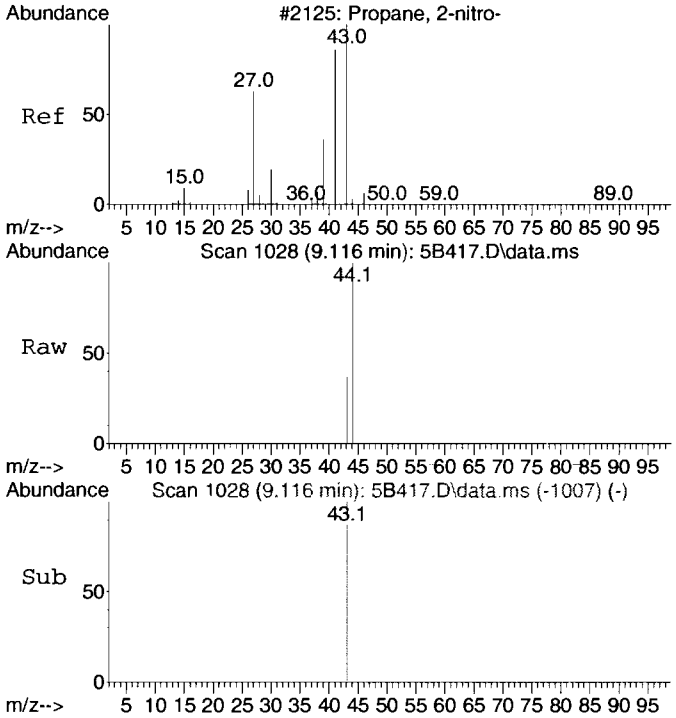


#72
4-Isopropyltoluene
Concen: 2.00 ug/L
RT: 13.229 min Scan# 2191
Delta R.T. -0.000 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion:119 Resp: 13324

Ion	Ratio	Lower	Upper
119	100		
134	25.0	0.0	57.2
91	34.7	0.0	53.0

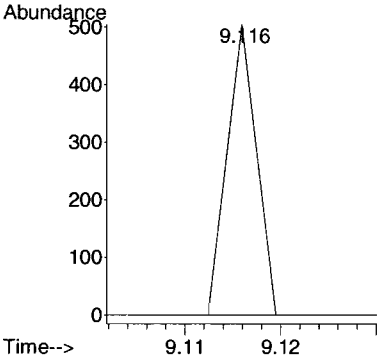


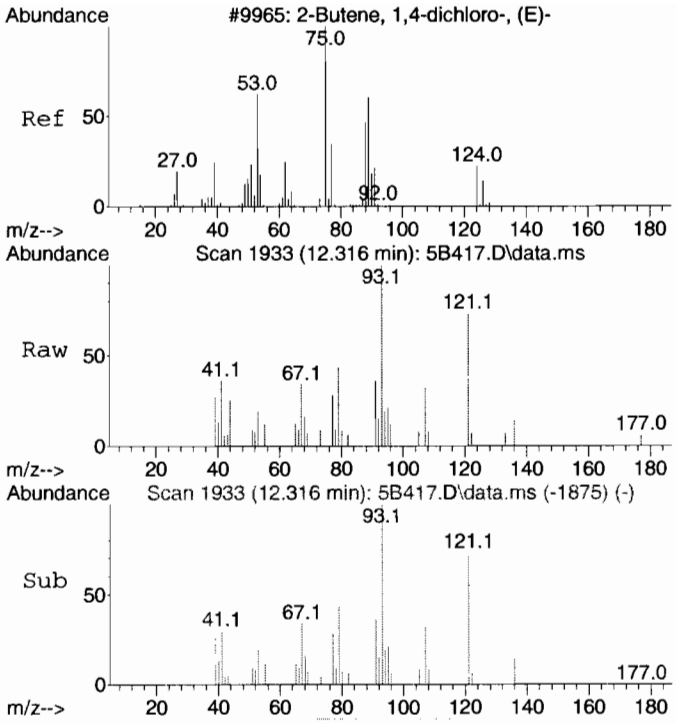


#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 6.96 ug/L
RT: 9.116 min Scan# 1028
Delta R.T. -0.226 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion: 43 Resp: 107

Ion	Ratio	Lower	Upper
43	100		
41	0.0	52.5	112.5#

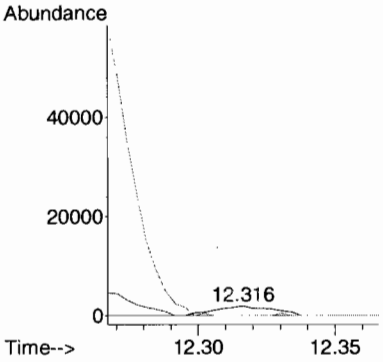




#109 BEFORE analyst DELETION
trans-1,4-Dichloro-2-butene
Concen: 4.84 ug/L
RT: 12.316 min Scan# 1933
Delta R.T. -0.096 min
Lab File: 5B417.D
Acq: 11 Mar 2010 1:45 pm

Tgt Ion: 53 Resp: 2813

Ion	Ratio	Lower	Upper
53	100		
88	0.0	15.5	75.5#
75	3.8	92.0	152.0#



Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B417.D
Acq On : 11 Mar 2010 1:45 pm
Operator : CDS1
Sample : |248517001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B417.D
Acq On : 11 Mar 2010 1:45 pm
Operator : CDS1
Sample : |248517001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Standards

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

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

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

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Last Update : Tue Mar 09 07:08:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030310V5\5A311.D

Injection Date	Mix	Calibration File
3 Mar 2010 3:18 pm	A	C:\msdchem\1\DATA\030310V5\5A311.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030310V5\5A315.D

Injection Date	Mix	Calibration File
3 Mar 2010 11:52 am	A	C:\msdchem\1\DATA\030310V5\5A303.D
3 Mar 2010 5:01 pm	B	C:\msdchem\1\DATA\030310V5\5A315.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030310V5\5A316.D

Injection Date	Mix	Calibration File
3 Mar 2010 12:18 pm	A	C:\msdchem\1\DATA\030310V5\5A304.D
3 Mar 2010 5:27 pm	B	C:\msdchem\1\DATA\030310V5\5A316.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030310V5\5A317.D

Injection Date	Mix	Calibration File
3 Mar 2010 12:43 pm	A	C:\msdchem\1\DATA\030310V5\5A305.D
3 Mar 2010 5:52 pm	B	C:\msdchem\1\DATA\030310V5\5A317.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030310V5\5A318.D

Injection Date	Mix	Calibration File
3 Mar 2010 1:09 pm	A	C:\msdchem\1\DATA\030310V5\5A306.D
3 Mar 2010 6:18 pm	B	C:\msdchem\1\DATA\030310V5\5A318.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\030310V5\5A319.D

Injection Date	Mix	Calibration File
3 Mar 2010 1:35 pm	A	C:\msdchem\1\DATA\030310V5\5A307.D
3 Mar 2010 6:44 pm	B	C:\msdchem\1\DATA\030310V5\5A319.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030310V5\5A320.D

Injection Date	Mix	Calibration File
3 Mar 2010 2:01 pm	A	C:\msdchem\1\DATA\030310V5\5A308.D
3 Mar 2010 7:10 pm	B	C:\msdchem\1\DATA\030310V5\5A320.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030310V5\5A321.D

Injection Date	Mix	Calibration File
3 Mar 2010 2:26 pm	A	C:\msdchem\1\DATA\030310V5\5A309.D
3 Mar 2010 7:35 pm	B	C:\msdchem\1\DATA\030310V5\5A321.D

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Last Update : Tue Mar 09 07:08:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.1343128	0.1140372	0.1271918	0.1076299	0.1161426				
	0.1071911	0.1106837					0.1167	AVRG		8.8231
3)MPA Chloromethane		10037	13766	31895	57674	114670				
0.0020 | 0.1467 | 0.00	261159	510887						LINR		0.9998
4)MCA Vinyl chloride		0.1366188	0.1281019	0.1255313	0.1197165	0.1183782				
	0.1157351	0.1183938					0.1232	AVRG		5.9617
5)MA Bromomethane		0.1239625	0.1169147	0.1094959	0.1165166	0.1190689				
	0.1170655	0.1206884					0.1177	AVRG		3.7964
6)MA Chloroethane		0.1370210	0.1216074	0.1215156	0.1214055	0.1263787				
	0.1233612	0.1233229					0.1249	AVRG		4.4855
7)MA Trichlorofluoromethane		0.2153456	0.2178553	0.2129630	0.2104313	0.2210791				
	0.2117030	0.2117388					0.2144	AVRG		1.8020
8)MA Ethyl ether		0.1871370	0.1767368	0.1717271	0.1985778	0.1841458				
	0.1947530	0.1794319					0.1846	AVRG		5.2291
9)MA Acetone		0.1866060	0.1644416	0.1375065	0.1478785	0.1253868				
	0.1463100	0.1376620					0.1494	AVRG		13.6035
10)MCA 1,1-Dichloroethylene		0.2398002	0.2409558	0.2398242	0.2475025	0.2208403				
	0.2389821	0.2445433					0.2389	AVRG		3.5757
11)MA Iodomethane		0.2444391	0.2568896	0.2483905	0.2612671	0.2249439				
	0.2471140	0.2442657					0.2468	AVRG		4.6894
12)MA Acetonitrile		0.0347170	0.0322725	0.0285058	0.0304863	0.0249732				
	0.0283547	0.0256546					0.0293	AVRG		11.9223
13)MA Methyl acetate		0.1815060	0.1773876	0.1581228	0.1758673	0.1361690				
	0.1652002	0.1485899					0.1633	AVRG		10.2209
14)MA Carbon disulfide		0.5050741	0.5194211	0.5014662	0.5065645	0.4033217				
	0.4578684	0.4584238					0.4789	AVRG		8.5995
15)MA Methylene chloride		11571	21218	39402	76880	131269				
0.0023 | 0.1884 | 0.00	347452	651820						LINR		0.9995
16)MA tert-Butyl methyl ether		0.4725751	0.5978178	0.4559781	0.5175164	0.4382739				
	0.5036196	0.4964892					0.4975	AVRG		10.4953

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Last Update : Tue Mar 09 07:08:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.2484881	0.2741276	0.2591751	0.2691941	0.2403411				
	0.2628117	0.2644957					0.2598	AVRG		4.5316
18)MA Vinyl acetate		0.4257145	0.3882024	0.3995826	0.4134088	0.4228412				
	0.4300924	0.3838583					0.4091	AVRG		4.5605
19)MPA 1,1-Dichloroethane		0.3142904	0.3229238	0.3125231	0.3367887	0.3058631				
	0.3302035	0.3294966					0.3217	AVRG		3.4802
20)MA 2-Butanone		0.1936957	0.1811767	0.1647833	0.1816863	0.1545487				
	0.1882036	0.1818946					0.1780	AVRG		7.6550
21)MA cis-1,2-Dichloroethylene		0.2816842	0.3216599	0.2968513	0.3189112	0.2809374				
	0.3090002	0.3063284					0.3022	AVRG		5.4422
22)MA 2,2-Dichloropropane		0.2583557	0.2487143	0.2316248	0.2394110	0.2202251				
	0.2371246	0.2337214					0.2385	AVRG		5.1515
23)MA Bromochloromethane		0.0843041	0.0899282	0.0830960	0.0936185	0.0838221				
	0.0955632	0.0945829					0.0893	AVRG		6.1291
24)MCA Chloroform		0.2880392	0.2944044	0.2766864	0.2987853	0.2690593				
	0.2968630	0.2933504					0.2882	AVRG		3.8825
25)MA 1,1,1-Trichloroethane		0.2341424	0.2408483	0.2355644	0.2432168	0.2237423				
	0.2446109	0.2416415					0.2377	AVRG		3.0518
26)MA Cyclohexane		0.3377261	0.3632086	0.3428843	0.3469778	0.3103599				
	0.3362899	0.3291308					0.3381	AVRG		4.8083
27)MA 1,1-Dichloropropene		0.2256423	0.2194822	0.2171957	0.2254819	0.2043886				
	0.2203338	0.2134343					0.2180	AVRG		3.3958
28)MA Carbon tetrachloride		0.1982649	0.2143055	0.1985177	0.2044374	0.1914744				
	0.2111430	0.2090476					0.2039	AVRG		4.0179
29)SA 1,2-Dichloroethane-d4		0.2369252	0.2336174	0.2380253	0.2497712	0.2396695				
	0.2469049	0.2490915					0.2420	AVRG		2.6779
30)MA 1,2-Dichloroethane		0.2479518	0.2572257	0.2440949	0.2612232	0.2285764				
	0.2554033	0.2486772					0.2490	AVRG		4.3389
31)MA Benzene		0.7418443	0.7731024	0.7153431	0.7479119	0.6649804				
	0.7207210	0.7026943					0.7238	AVRG		4.8270

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.3339520	0.3123061 0.3234949	0.3866319	0.3393842	0.3509290	0.3080677	0.3364	AVRG		7.9572
33)MA n-Butyl alcohol 0.0059 | 0.0070 | 0.00	19260 1408012	34213 2352134	56344	121141	269492	466484		LINR	#	0.9947
34)MA Trichloroethylene	0.1724887	0.1816132 0.1698750	0.1780411	0.1681998	0.1729789	0.1601051	0.1719	AVRG		4.0477
35)MCA 1,2-Dichloropropane	0.2087711	0.2111626 0.2051990	0.2097606	0.1902748	0.2128689	0.1930853	0.2044	AVRG		4.4358
36)MA Methylcyclohexane	0.3125154	0.3236754 0.2954954	0.3376340	0.3191597	0.3187083	0.2915431	0.3141	AVRG		5.1167
37)MA Dibromomethane	0.1147921	0.0958611 0.1112747	0.1022045	0.0940684	0.1106872	0.0984524	0.1039	AVRG		7.9840
38)MA Bromodichloromethane	0.2331295	0.1958516 0.2322850	0.2002811	0.2032170	0.2187202	0.2032823	0.2124	AVRG		7.3274
39)MA 2-Chloroethylvinyl ether	0.0686203	0.0564924 0.0652642	0.0601502	0.0771933	0.0701491	0.0593383	0.0653	AVRG		11.1044
40)MA cis-1,3-Dichloropropylen	0.3125399	0.2818987 0.3029780	0.2841853	0.2759376	0.3026459	0.2752061	0.2908	AVRG		5.1555
42)MA 4-Methyl-2-pentanone	0.1271094	0.1231600 0.1177079	0.1229976	0.1118485	0.1258398	0.1083137	0.1196	AVRG		6.0173
43)SA Toluene-d8	1.2721004	1.2715773 1.2960357	1.2614345	1.2794096	1.2985942	1.2717942	1.2787	AVRG		1.0765
44)MCA Toluene	1.0348743	1.1518044 0.9819176	1.1664465	1.0787639	1.0942945	1.0060419	1.0734	AVRG		6.5499
45)MA trans-1,3-Dichloropropyl	0.3858636	0.3568487 0.3673651	0.3722761	0.3512502	0.3821534	0.3436649	0.3656	AVRG		4.3186
46)MA 1,1,2-Trichloroethane	0.1865070	0.1809477 0.1759586	0.1909377	0.1747003	0.1892881	0.1696366	0.1811	AVRG		4.4615
47)MA 2-Hexanone	0.3467953	0.3284339 0.3313724	0.3316048	0.3042837	0.3395084	0.2907043	0.3247	AVRG		6.1423

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.3986847	0.3941649	0.3766925	0.4132373	0.3644275				
	0.4018238	0.3753277					0.3892	AVRG		4.4680
49)MA Tetrachloroethylene		0.2101304	0.2182619	0.2019552	0.1998049	0.1830335				
	0.1886479	0.1744663					0.1966	AVRG		7.8477
50)MA Dibromochloromethane		0.2023411	0.2093074	0.1956150	0.2219088	0.2007112				
	0.2419406	0.2365549					0.2155	AVRG		8.4921
51)MA 1,2-Dibromoethane		0.2177735	0.2045353	0.1960736	0.2183057	0.1960958				
	0.2238521	0.2124675					0.2099	AVRG		5.3073
52)MPA Chlorobenzene		0.7408323	0.7386193	0.6950357	0.7183845	0.6572330				
	0.6872590	0.6366570					0.6963	AVRG		5.6932
53)MA 1,1,1,2-Tetrachloroethan		0.2332060	0.2374976	0.2252816	0.2425499	0.2251908				
	0.2494816	0.2379202					0.2359	AVRG		3.7523
54)MCA Ethylbenzene		1.3980293	1.3671495	1.2021431	1.2341387	1.1328429				
	1.1606703	1.0780788					1.2247	AVRG		9.7166
55)MA m,p-Xylenes		0.4755362	0.4871003	0.4628331	0.4838482	0.4481627				
	0.4618127	0.4281219					0.4639	AVRG		4.4913
56)MA o-Xylene		0.4805646	0.4947283	0.4674384	0.4872624	0.4439087				
	0.4689336	0.4384802					0.4688	AVRG		4.5189
57)MA Styrene		0.6852095	0.6985634	0.6741433	0.7377851	0.6904055				
	0.7780846	0.7485180					0.7161	AVRG		5.4221
59)MPA Bromoform		0.2425130	0.2628946	0.2525902	0.2877580	0.2590520				
	0.3074710	0.2932519					0.2722	AVRG		8.8146
60)MA Isopropylbenzene		2.3943888	2.5037151	2.3076026	2.3716419	2.2055021				
	2.2318182	2.0444667					2.2942	AVRG		6.5198
61)SA Bromofluorobenzene		1.0123469	1.0080037	1.0035486	1.0238053	0.9924612				
	0.9869307	0.9932836					1.0029	AVRG		1.2932
62)MPA 1,1,2,2-Tetrachloroethan		0.6871449	0.6275343	0.5716073	0.6108623	0.5337210				
	0.5917981	0.5341051					0.5938	AVRG		9.1753
63)MA 1,2,3-Trichloropropane		0.1542994	0.1701851	0.1567715	0.1717308	0.1442981				
	0.1663007	0.1462352					0.1585	AVRG		7.0291

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.6486814	0.6270489	0.5549342	0.5944725	0.5351627				
	0.5547476	0.5243606					0.5771	AVRG		8.2053
65)MA n-Propylbenzene		3.1428673	3.0740107	2.7659361	2.7519459	2.6123049				
	2.6188023	2.4230362					2.7698	AVRG		9.3207
66)MA 1,3,5-Trimethylbenzene		2.1140806	2.1176062	1.9345676	1.9838360	1.8693101				
	1.9147331	1.7809313					1.9593	AVRG		6.3245
67)MA 2-Chlorotoluene		0.6336821	0.6149888	0.5712532	0.5980658	0.5347064				
	0.5556979	0.5174526					0.5751	AVRG		7.4098
68)MA 4-Chlorotoluene		2.0033682	1.9506321	1.7393299	1.7773161	1.6165466				
	1.6724026	1.5676196					1.7610	AVRG		9.3178
69)MA tert-Butylbenzene		0.5220044	0.5067096	0.4594991	0.4418889	0.4115510				
	0.4229275	0.3925972					0.4510	AVRG		10.7312
70)MA 1,2,4-Trimethylbenzene		2.1474948	2.1428091	1.9400417	2.0243304	1.8983398				
	1.9586218	1.8420857					1.9934	AVRG		5.9008
71)MA sec-Butylbenzene		2.7713754	2.7409960	2.5556188	2.5245775	2.4127685				
	2.4689370	2.2728207					2.5353	AVRG		6.9611
72)MA 4-Isopropyltoluene		2.1276691	2.1644277	1.9988403	2.0283563	1.9476327				
	1.9874771	1.8512791					2.0151	AVRG		5.2660
73)MA 1,3-Dichlorobenzene		1.2393706	1.1735978	1.0546701	1.1091368	1.0209850				
	1.0613620	1.0114602					1.0958	AVRG		7.6742
74)MA 1,4-Dichlorobenzene		1.2623150	1.1764354	1.0887098	1.1479739	1.0224741				
	1.0794919	1.0206465					1.1140	AVRG		7.8575
75)MA n-Butylbenzene		2.2862752	2.2057605	1.9471241	1.9465316	1.8399483				
	1.8731727	1.7525689					1.9788	AVRG		9.8883
76)MA 1,2-Dichlorobenzene		1.1619981	1.1046351	1.0096084	1.0812630	0.9841815				
	1.0422240	0.9895673					1.0534	AVRG		6.2618
77)MA 1,2-Dibromo-3-chloroprop		0.1466513	0.1103702	0.0987550	0.1134385	0.0964579				
	0.1172103	0.1082926					0.1130	AVRG		14.6986
78)MA 1,2,4-Trichlorobenzene		0.7703834	0.7294288	0.6781382	0.7096930	0.6624167				
	0.7207589	0.6948904					0.7094	AVRG		5.0317

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.4278299	0.4733681 0.4047082	0.4525326	0.4213133	0.4251323	0.4112408	0.4309	AVRG		5.5882
80)MA Naphthalene	1.7289583	1.6207382 1.6143553	1.6540963	1.4827854	1.6683802	1.5100228	1.6113	AVRG		5.4224
81)MA 1,2,3-Trichlorobenzene	0.6423302	0.6276676 0.6195878	0.6346658	0.5810652	0.6448961	0.5831963	0.6191	AVRG		4.3026
83)B Chlorotrifluoroethylene	0.0735216	0.0835210 0.0860804	0.0722722	0.0684897	0.0802235	0.0986873	0.0804	AVRG		12.7622
84)B 2-Chloro-1,1,1-trifluoro	0.1183741	0.1102455 0.1256300	0.1129374	0.1103017	0.1195944	0.1242927	0.1173	AVRG		5.4176
85)B Acrolein -0.0097 | 0.0306 | 0.00	221757	2624 537267	5641	16329	36743	72786		LINR		0.9903
86)B Trichlorotrifluoroethane	0.0405821	0.0459929 0.0499271	0.0456091	0.0440692	0.0471327	0.0405003	0.0448	AVRG		7.6523
87)B Isopropyl Alcohol	0.0156865	0.0132039 0.0168508	0.0133281	0.0136177	0.0152807	0.0167250	0.0150	AVRG		10.5258
88)B Allyl chloride	0.3013963	0.3545867 0.3247091	0.3325385	0.3315882	0.3447311	0.3139613	0.3291	AVRG		5.4472
89)B tert-Butyl Alcohol	0.0229193	0.0182895 0.0244880	0.0196806	0.0209845	0.0227963	0.0247242	0.0220	AVRG		11.0285
90)B Acrylonitrile	0.0699699	0.0715226 0.0753880	0.0684122	0.0745782	0.0754865	0.0711180	0.0724	AVRG		3.8849
91)B Isopropyl ether	0.7352384	0.7025458 0.7994663	0.6794811	0.6820459	0.7654787	0.7924311	0.7367	AVRG		6.8556
92)B 2-Chloro-1,3-butadiene	0.2159482	0.1980383 0.2496900	0.1966904	0.2032729	0.2213056	0.2015126	0.2124	AVRG		8.8880
93)B Ethyl tert-butyl ether	0.5377480	0.4313279 0.6133655	0.4816021	0.5236631	0.5726499	0.5688029	0.5327	AVRG		11.4695
94)B Ethyl acetate	0.1873901	0.2038656 0.1978070	0.1859171	0.1985214	0.2051710	0.1930163	0.1960	AVRG		3.8432

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0274167	0.0254057 0.0295674	0.0261084	0.0287780	0.0296110	0.0280571	0.0278	AVRG		5.8911
96)B Methacrylonitrile	0.1462335	0.1576755 0.1544466	0.1461036	0.1559698	0.1612840	0.1496123	0.1530	AVRG		3.8305
97)B Tetrahydrofuran	0.0649169	0.0717706 0.0687676	0.0675774	0.0711026	0.0723381	0.0676879	0.0692	AVRG		3.8938
98)B Isobutyl alcohol	0.0077815	0.0071325 0.0076959	0.0063262	0.0072331	0.0073822	0.0074520	0.0073	AVRG	#	6.6246
99)B Methyl tert-amyl ether	0.4244686	0.3693071 0.4894317	0.3868580	0.4285646	0.4452561	0.4538868	0.4283	AVRG		9.4811
100)B Methyl methacrylate	0.1178945	0.1081095 0.1241707	0.1026339	0.1134532	0.1237597	0.1183364	0.1155	AVRG		6.9053
101)B 1,4-Dioxane	0.0021058	0.0019460 0.0022074	0.0018691	0.0020607	0.0021756	0.0020610	0.0021	AVRG	#	5.8304
102)B 2-Nitropropane -0.0083 | 0.0603 | 0.00	483598	8038 1057258	15631	44649	93248	187428		LINR		0.9974
104)B Ethyl methacrylate	0.3067238	0.2614159 0.3151848	0.2550206	0.2945269	0.3244650	0.3086265	0.2951	AVRG		9.0970
106)B 1-Chlorohexane	0.4829755	0.5235250 0.5218822	0.4770701	0.4681758	0.5166419	0.5271408	0.5025	AVRG		5.0286
107)B cis-1,4-Dichloro-2-buten	0.1870322	0.1796601 0.1976993	0.1700290	0.1860859	0.2007261	0.1875530	0.1870	AVRG		5.5493
108)B Cyclohexanone		0.0139831	0.0143555	0.0153783	0.0164251	0.0167053	0.0154	AVRG		7.8679
109)B trans-1,4-Dichloro-2-but	0.1744505	0.1664803 0.1845150	0.1640418	0.1749215	0.1913325	0.1771113	0.1761	AVRG		5.4159
110)B Pentachloroethane	0.2461688	0.2534545 0.2701388	0.1993333	0.2360493	0.2598436	0.2423291	0.2439	AVRG		9.3035
111)B Benzyl chloride	0.8579629	0.8960861 0.8906143	0.8542224	0.9170528	0.9675422	0.8839666	0.8953	AVRG		4.3075

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Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b m1 m2	6	7								
112)B bis(2-Chloroisopropyl)et		0.3441093	0.3217389	0.3317707	0.3404966	0.3253184				
	0.3165820	0.3259263					0.3294	AVRG		3.0276

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2198

Instrument ID: VOA5.I **Injection Date** 03-MAR-10 16:10

Data File: 030310V5\5A313.D **Init. Cal. Date(s)** 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100303-10 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.242	0.24421		.01		0.91322	30		Averaged	
S	Toluene-d8	1.2787	1.27452		.01		-0.32689	30		Averaged	
S	Bromofluorobenzene	1.0029	0.99178		.01		-1.10878	30		Averaged	
	Dichlorodifluoromethane	0.1167	0.10877		.01		-6.7952	30		Averaged	
	Chloromethane	50	47.23	50			-5.54	30		Linear	spcc
	Vinyl chloride	0.1232	0.11935		.01		-3.125	20		Averaged	ccc
	Bromomethane	0.1177	0.1182		.01		0.42481	30		Averaged	
	Chloroethane	0.1249	0.12029		.01		-3.69095	30		Averaged	
	Trichlorofluoromethane	0.2144	0.21193		.01		-1.15205	30		Averaged	
	Ethyl ether	0.1846	0.17033		.01		-7.73023	30		Averaged	
	1,1-Dichloroethylene	0.2389	0.22217		.01		-7.00293	20		Averaged	ccc
	Acetone	0.1494	0.11803		.01		-20.99732	40		Averaged	
	Iodomethane	0.2468	0.23547		.01		-4.59076	30		Averaged	
	Methyl acetate	0.1633	0.14216		.01		-12.9455	40		Averaged	
	Carbon disulfide	0.4789	0.4718		.01		-1.48256	30		Averaged	
	Acetonitrile	0.0293	0.02521		.01		-13.95904	30		Averaged	
	Methylene chloride	50	47.91	50			-4.18	30		Linear	
	tert-Butyl methyl ether	0.4975	0.4619		.01		-7.15578	30		Averaged	
	trans-1,2-Dichloroethylene	0.2598	0.24929		.01		-4.04542	30		Averaged	
	Vinyl acetate	0.4091	0.41961		.01		2.56905	40		Averaged	
	1,1-Dichloroethane	0.3217	0.31699		.1		-1.4641	30		Averaged	spcc
	2-Butanone	0.178	0.14855		.01		-16.54494	40		Averaged	
	2,2-Dichloropropane	0.2385	0.22482		.01		-5.73585	30		Averaged	
	cis-1,2-Dichloroethylene	0.3022	0.29612		.01		-2.01191	30		Averaged	
	Chloroform	0.2882	0.28311		.01		-1.76613	20		Averaged	ccc
	Bromochloromethane	0.0893	0.09141		.01		2.36282	30		Averaged	
	1,1,1-Trichloroethane	0.2377	0.23371		.01		-1.67859	30		Averaged	
	Cyclohexane	0.3381	0.32396		.01		-4.18219	30		Averaged	
	1,1-Dichloropropene	0.218	0.20984		.01		-3.74312	30		Averaged	
	Carbon tetrachloride	0.2039	0.20004		.01		-1.89308	30		Averaged	
	Benzene	0.7238	0.68663		.01		-5.1354	30		Averaged	
	1,2-Dichloroethane	0.249	0.23966		.01		-3.751	30		Averaged	
	Cyclohexene	0.3364	0.31082		.01		-7.60404	30		Averaged	
	n-Butyl alcohol	5000	4684.67	5000			-6.3066	40		Linear	
	Trichloroethylene	0.1719	0.16611		.01		-3.36824	30		Averaged	
	Methylcyclohexane	0.3141	0.28966		.01		-7.78096	30		Averaged	
	1,2-Dichloropropane	0.2044	0.1998		.01		-2.25049	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Dat** 03-MAR-10 16:10

Data File: 030310V5\5A313.D **Init. Cal. Date(s)** 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100303-10 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1039	0.10512		.01		1.17421	30		Averaged	
Bromodichloromethane	0.2124	0.22108		.01		4.08663	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.06282		.01		-3.79786	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.28903		.01		-0.60867	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.1091		.01		-8.77926	40		Averaged	
Toluene	1.0734	0.98913		.01		-7.85075	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.35772		.01		-2.15536	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.17385		.01		-4.00331	30		Averaged	
2-Hexanone	0.3247	0.27267		.01		-16.02402	40		Averaged	
Tetrachloroethylene	0.1966	0.1809		.01		-7.98576	30		Averaged	
1,3-Dichloropropane	0.3892	0.36897		.01		-5.19784	30		Averaged	
Dibromochloromethane	0.2155	0.21995		.01		2.06497	30		Averaged	
1,2-Dibromoethane	0.2099	0.20474		.01		-2.45831	30		Averaged	
Chlorobenzene	0.6963	0.65948		.3		-5.28795	30		Averaged	spcc
Ethylbenzene	1.2247	1.10154		.01		-10.05634	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.23427		.01		-0.69097	30		Averaged	
m,p-Xylenes	0.4639	0.43751		.01		-5.68873	30		Averaged	
o-Xylene	0.4688	0.44327		.01		-5.44582	30		Averaged	
Styrene	0.7161	0.73277		.01		2.32789	30		Averaged	
Bromoform	0.2722	0.28094		.1		3.21087	30		Averaged	spcc
Isopropylbenzene	2.2942	2.10689		.01		-8.1645	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.5349		.3		-9.91916	30		Averaged	spcc
n-Propylbenzene	2.7698	2.4928		.01		-10.00072	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.14961		.01		-5.60883	30		Averaged	
Bromobenzene	0.5771	0.53865		.01		-6.66262	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.81472		.01		-7.37917	30		Averaged	
2-Chlorotoluene	0.5751	0.532		.01		-7.49435	30		Averaged	
4-Chlorotoluene	1.761	1.61118		.01		-8.50767	30		Averaged	
tert-Butylbenzene	0.451	0.39993		.01		-11.32373	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	1.86402		.01		-6.49042	30		Averaged	
sec-Butylbenzene	2.5353	2.31846		.01		-8.55283	30		Averaged	
4-Isopropyltoluene	2.0151	1.87648		.01		-6.87906	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.02852		.01		-6.13981	30		Averaged	
1,4-Dichlorobenzene	1.114	1.04673		.01		-6.0386	30		Averaged	
n-Butylbenzene	1.9788	1.7573		.01		-11.19365	30		Averaged	
1,2-Dichlorobenzene	1.0534	0.99705		.01		-5.34934	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.10451		.01		-7.51327	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Dat** 03-MAR-10 16:10

Data File: 030310V5\5A313.D **Init. Cal. Date(s)** 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100303-10 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7094	0.69168		.01		-2.49789	30		Averaged
Hexachlorobutadiene	0.4309	0.41116		.01		-4.58111	30		Averaged
Naphthalene	1.6113	1.57133		.01		-2.48061	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.62516		.01		0.97884	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A313.D
Acq On : 3 Mar 2010 4:10 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.391	8.387	1.000	96	1746399	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1312296	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	682831	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1746399	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1312296	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	682831	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	426493	50.46	ug/L	0.00
43) Toluene-d8	9.724	9.721	0.873	98	1672551	49.84	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	677221	49.45	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.556	85	189950	46.58	ug/L	96
3) Chloromethane	4.900	4.900	0.584	50	245590	47.23	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	208439	48.43	ug/L	97
5) Bromomethane	5.434	5.423	0.648	94	206417	50.22	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	210081	48.14	ug/L	99
7) Trichlorofluoromethane	5.705	5.695	0.680	101	370114	49.41	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	297471	46.12	ug/L	97
9) Acetone	6.174	6.174	0.736	43	1030674	197.52	ug/L	99
10) 1,1-Dichloroethylene	6.156	6.156	0.734	61	387994	46.49	ug/L	99
11) Iodomethane	6.361	6.357	0.758	142	2056129	238.56	ug/L	99
12) Acetonitrile	6.464	6.464	0.770	41	1100599	1076.16	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1241350	217.69	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	4119792	246.31	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	319169	47.91	ug/L	99
16) tert-Butyl methyl ether	6.641	6.640	0.791	73	806665	46.43	ug/L	99
17) trans-1,2-Dichloroethy...	6.715	6.715	0.800	61	435366	47.98	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	3664023	256.42	ug/L	100
19) 1,1-Dichloroethane	7.072	7.068	0.843	63	553584	49.26	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	1297140	208.64	ug/L	100
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	517143	48.99	ug/L	100
22) 2,2-Dichloropropane	7.514	7.514	0.895	77	392633	47.14	ug/L	98
23) Bromochloromethane	7.723	7.719	0.920	128	159635	51.20	ug/L	98
24) Chloroform	7.702	7.701	0.918	83	494431	49.12	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	408147	49.16	ug/L	99
26) Cyclohexane	7.924	7.924	0.944	56	565761	47.91	ug/L	99
27) 1,1-Dichloropropene	8.009	8.005	0.954	75	366466	48.13	ug/L	99
28) Carbon tetrachloride	8.023	8.020	0.956	117	349351	49.06	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.981	62	418545	48.12	ug/L	100
31) Benzene	8.200	8.203	0.977	78	1199124	47.43	ug/L	100
32) Cyclohexene	8.250	8.246	0.983	67	542810	46.20	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.998	56	1150973	4684.67	ug/L	99
34) Trichloroethylene	8.678	8.677	1.034	95	290093	48.32	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.064	63	348926	48.86	ug/L	100
36) Methylcyclohexane	8.830	8.826	1.052	83	505866	46.11	ug/L	98
37) Dibromomethane	9.063	9.059	1.080	93	183578	50.58	ug/L	99
38) Bromodichloromethane	9.113	9.112	1.086	83	386094	52.04	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	548585	240.47	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.487	1.130	75	504766	49.70	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A313.D
Acq On : 3 Mar 2010 4:10 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	715875	228.12	ug/L	99
44) Toluene	9.788	9.788	0.878	91	1298029	46.07	ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	469439	48.92	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	228140	47.99	ug/L	98
47) 2-Hexanone	10.280	10.279	0.923	43	1789138	209.96	ug/L	100
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	484201	47.40	ug/L	99
49) Tetrachloroethylene	10.290	10.290	0.924	164	237399	46.00	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	288635	51.04	ug/L	99
51) 1,2-Dibromoethane	10.775	10.771	0.967	107	268682	48.78	ug/L	98
52) Chlorobenzene	11.174	11.174	1.003	112	865428	47.36	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	307438	49.66	ug/L	100
54) Ethylbenzene	11.181	11.181	1.003	91	1445541	44.97	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1148282	94.31	ug/L	99
56) o-Xylene	11.701	11.701	1.050	106	581707	47.28	ug/L	99
57) Styrene	11.715	11.715	1.051	104	961606	51.16	ug/L	94
59) Bromoform	12.005	12.005	0.895	173	191832	51.60	ug/L	100
60) Isopropylbenzene	12.016	12.016	0.896	105	1438651	45.92	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.352	12.348	0.921	83	365248	45.04	ug/L	100
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	102156	47.18	ug/L #	93
64) Bromobenzene	12.465	12.465	0.929	156	367810	46.67	ug/L	98
65) n-Propylbenzene	12.419	12.415	0.926	91	1702161	45.00	ug/L	99
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.936	105	1239147	46.31	ug/L	100
67) 2-Chlorotoluene	12.599	12.596	0.939	126	363269	46.25	ug/L #	80
68) 4-Chlorotoluene	12.698	12.698	0.946	91	1100162	45.75	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	273083	44.34	ug/L	99
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1272813	46.76	ug/L	99
71) sec-Butylbenzene	13.119	13.119	0.978	105	1583116	45.72	ug/L	99
72) 4-Isopropyltoluene	13.232	13.229	0.986	119	1281322	46.56	ug/L	100
73) 1,3-Dichlorobenzene	13.353	13.349	0.995	146	702303	46.93	ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	714738	46.98	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	1199936	44.40	ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	680815	47.33	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	71362	46.23	ug/L	97
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.164	180	472299	48.75	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	280754	47.71	ug/L	98
80) Naphthalene	15.989	15.988	1.192	128	1072953	48.76	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.214	180	426882	50.49	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	5.967	6.082	0.711		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.167	6.163	0.735		0m	N.D.	d	
88) Allyl chloride	6.464	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.460	6.460	0.770		0m	N.D.	d	
90) Acrylonitrile	6.683	6.747	0.796		0m	N.D.	d	
91) Isopropyl ether	6.916	6.920	0.824		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.033	7.104	0.838		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.196	7.192	0.858		0m	N.D.	d	
94) Ethyl acetate	7.376	7.383	0.879		0m	N.D.	d	
95) Propionitrile	7.663	7.585	0.913		0m	N.D.	d	
96) Methacrylonitrile	7.673	7.680	0.914		0m	N.D.	d	
97) Tetrahydrofuran	7.712	7.716	0.919		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A313.D
Acq On : 3 Mar 2010 4:10 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

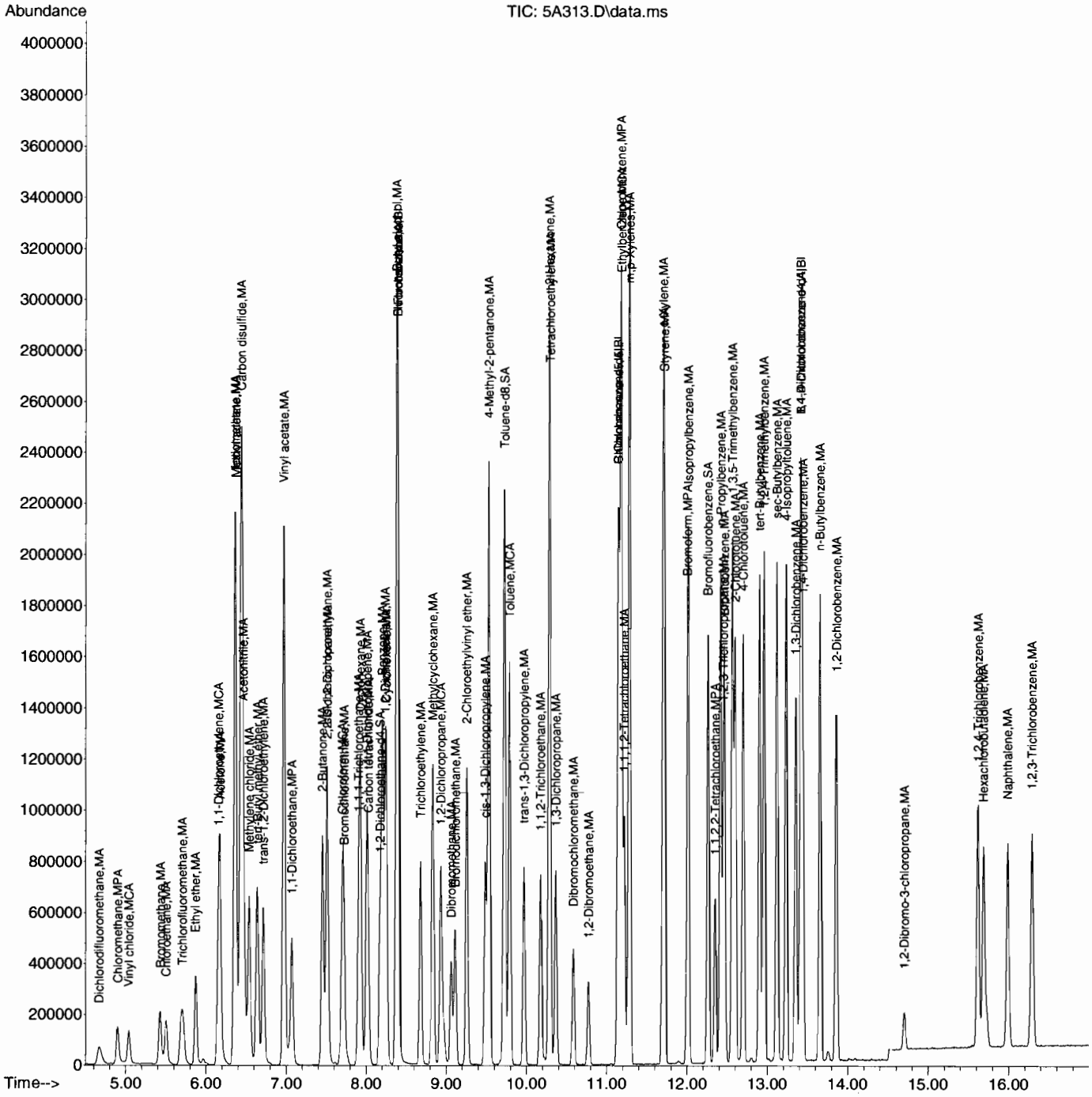
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	7.673	7.857	0.914		0m	N.D.	d
99) Methyl tert-amyl ether	8.119	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.830	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	9.056	8.957	1.079		0m	N.D.	d
102) 2-Nitropropane	9.353	9.342	1.115		0m	N.D.	d
104) Ethyl methacrylate	9.869	9.859	0.886		0m	N.D.	d
106) 1-Chlorohexane	11.050	10.980	0.824		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.895		0m	N.D.	d
108) Cyclohexanone	12.267	12.267	0.914		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.415	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.020	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.558	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A313.D
Acq On : 3 Mar 2010 4:10 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 10-2198

Instrument ID: VOA5.I **Injection Date** 03-MAR-10 20:27

Data File: 030310V5\5A323.D **Init. Cal. Date(s)** 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100303-18 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.242	0.24732		.01		2.19835	30		Averaged
S	Toluene-d8	1.2787	1.27239		.01		-0.49347	30		Averaged
S	Bromofluorobenzene	1.0029	1.00377		.01		0.08675	30		Averaged
	Chlorotrifluoroethylene	0.0804	0.08935		.01		11.13184	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.1173	0.12314		.01		4.97869	30		Averaged
	Trichlorotrifluoroethane	0.0448	0.04225		.01		-5.69196	30		Averaged
	Acrolein	250	209.83	250			-16.068	30		Linear
	Isopropyl Alcohol	0.015	0.01636		.01		9.06667	40		Averaged
	Allyl chloride	0.3291	0.29416		.01		-10.61683	30		Averaged
	tert-Butyl Alcohol	0.022	0.02431		.01		10.5	40		Averaged
	Acrylonitrile	0.0724	0.0686		.01		-5.24862	30		Averaged
	Isopropyl ether	0.7367	0.73607		.01		-0.08552	30		Averaged
	2-Chloro-1,3-butadiene	0.2124	0.22289		.01		4.93879	30		Averaged
	Ethyl tert-butyl ether	0.5327	0.57757		.01		8.42313	30		Averaged
	Ethyl acetate	0.196	0.17171		.01		-12.39286	40		Averaged
	Propionitrile	0.0278	0.02682		.01		-3.52518	30		Averaged
	Methacrylonitrile	0.153	0.14244		.01		-6.90196	30		Averaged
	Tetrahydrofuran	0.0692	0.0645		.01		-6.79191	30		Averaged
	Isobutyl alcohol	0.0073	0.00698		.01		-4.38356	40		Averaged
	Methyl tert-amyl ether	0.4283	0.46461		.01		8.4777	30		Averaged
	Methyl methacrylate	0.1155	0.1132		.01		-1.99134	30		Averaged
	1,4-Dioxane	0.0021	0.00194		.01		-7.61905	40		Averaged
	2-Nitropropane	250	229.4	250			-8.24	30		Linear
	Ethyl methacrylate	0.2951	0.29405		.01		-0.35581	30		Averaged
	1-Chlorohexane	0.5025	0.46939		.01		-6.58905	30		Averaged
	cis-1,4-Dichloro-2-butene	0.187	0.18605		.01		-0.50802	30		Averaged
	Cyclohexanone	0.0154	0.03579		.01		132.4026	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1761	0.17466		.01		-0.81772	30		Averaged
	Pentachloroethane	0.2439	0.16659		.01		-31.69742	30	*	Averaged
	Benzyl chloride	0.8953	0.78208		.01		-12.64604	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3294	0.30154		.01		-8.4578	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A323.D
Acq On : 3 Mar 2010 8:27 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1707267	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1280650	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	656283	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1707267	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1280650	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	656283	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	422235	51.10	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1629487	49.75	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	658756	50.04	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.608	4.668	0.549		0m	N.D.	d	
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.041	5.041	0.601		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699		0m	N.D.	d	
9) Acetone	6.160	6.174	0.734		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.082	6.156	0.725		0m	N.D.	d	
11) Iodomethane	6.354	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.340	6.464	0.756		0m	N.D.	d	
13) Methyl acetate	6.361	6.365	0.758		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.538	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.644	6.640	0.792		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.793	6.969	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	7.100	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.380	7.450	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.482	7.507	0.892		0m	N.D.	d	
22) 2,2-Dichloropropane	7.514	7.514	0.896		0m	N.D.	d	
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.967	7.924	0.950		0m	N.D.	d	
27) 1,1-Dichloropropene	8.122	8.005	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978		0m	N.D.	d	
32) Cyclohexene	8.249	8.246	0.984		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.684	8.677	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.840	8.826	1.054		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	9.685	9.487	1.155		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A323.D
Acq On : 3 Mar 2010 8:27 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42)	4-Methyl-2-pentanone	9.519	9.526	0.854		0m	N.D. d		
44)	Toluene	9.788	9.788	0.878		0m	N.D. d		
45)	trans-1,3-Dichloroprop...	9.965	9.968	0.894		0m	N.D. d		
46)	1,1,2-Trichloroethane	10.290	10.173	0.924		0m	N.D. d		
47)	2-Hexanone	10.276	10.279	0.922		0m	N.D. d		
48)	1,3-Dichloropropane	10.364	10.364	0.930		0m	N.D. d		
49)	Tetrachloroethylene	10.290	10.290	0.924		0m	N.D. d		
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.		
52)	Chlorobenzene	11.178	11.174	1.003		0m	N.D. d		
53)	1,1,1,2-Tetrachloroethane	11.209	11.216	1.006		0m	N.D. d		
54)	Ethylbenzene	11.209	11.181	1.006		0m	N.D. d		
55)	m,p-Xylenes	11.284	11.280	1.013		0m	N.D. d		
56)	o-Xylene	0.000	11.701	0.000		0	N.D.		
57)	Styrene	11.712	11.715	1.051		0m	N.D. d		
59)	Bromoform	0.000	12.005	0.000		0	N.D.		
60)	Isopropylbenzene	12.019	12.016	0.896		0m	N.D. d		
62)	1,1,2,2-Tetrachloroethane	12.348	12.348	0.921		0m	N.D. d		
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64)	Bromobenzene	12.458	12.465	0.929		0m	N.D. d		
65)	n-Propylbenzene	12.412	12.415	0.925		0m	N.D. d		
66)	1,3,5-Trimethylbenzene	12.567	12.564	0.937		0m	N.D. d		
67)	2-Chlorotoluene	12.599	12.596	0.939		0m	N.D. d		
68)	4-Chlorotoluene	12.702	12.698	0.947		0m	N.D. d		
69)	tert-Butylbenzene	12.900	12.900	0.962		0m	N.D. d		
70)	1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D. d		
71)	sec-Butylbenzene	13.116	13.119	0.978		0m	N.D. d		
72)	4-Isopropyltoluene	13.324	13.229	0.993		0m	N.D. d		
73)	1,3-Dichlorobenzene	13.356	13.349	0.996		0m	N.D. d		
74)	1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D. d		
75)	n-Butylbenzene	13.650	13.653	1.018		0m	N.D. d		
76)	1,2-Dichlorobenzene	13.851	13.858	1.033		0m	N.D. d		
77)	1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	15.620	15.619	1.165		0m	N.D. d		
79)	Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.		
80)	Naphthalene	15.988	15.988	1.192		0m	N.D. d		
81)	1,2,3-Trichlorobenzene	16.284	16.291	1.214		0m	N.D. d		
83)	Chlorotrifluoroethylene	4.608	4.608	0.549	116	457640	166.70	ug/L	98
84)	2-Chloro-1,1,1-trifluo...	5.111	5.111	0.609	118	630710	157.42	ug/L	99
85)	Acrolein	6.078	6.082	0.725	56	203044	209.83	ug/L	100
86)	Trichlorotrifluoroethane	6.071	6.071	0.724	85	360646	235.60	ug/L	99
87)	Isopropyl Alcohol	6.163	6.163	0.735	45	1396118	2733.84	ug/L	100
88)	Allyl chloride	6.425	6.425	0.766	41	2511086	223.48	ug/L	100
89)	tert-Butyl Alcohol	6.457	6.460	0.770	59	2075409	2764.91	ug/L	91
90)	Acrylonitrile	6.743	6.747	0.804	53	585578	237.02	ug/L	99
91)	Isopropyl ether	6.916	6.920	0.825	45	1256662	49.96	ug/L	100
92)	2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	380533	52.48	ug/L	99
93)	Ethyl tert-butyl ether	7.192	7.192	0.857	59	986070	54.21	ug/L	100
94)	Ethyl acetate	7.380	7.383	0.880	43	1465750	219.06	ug/L	100
95)	Propionitrile	7.585	7.585	0.904	54	228923	240.74	ug/L	99
96)	Methacrylonitrile	7.677	7.680	0.915	41	1215874	232.67	ug/L	99
97)	Tetrahydrofuran	7.712	7.716	0.919	42	550635	233.15	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A323.D
Acq On : 3 Mar 2010 8:27 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

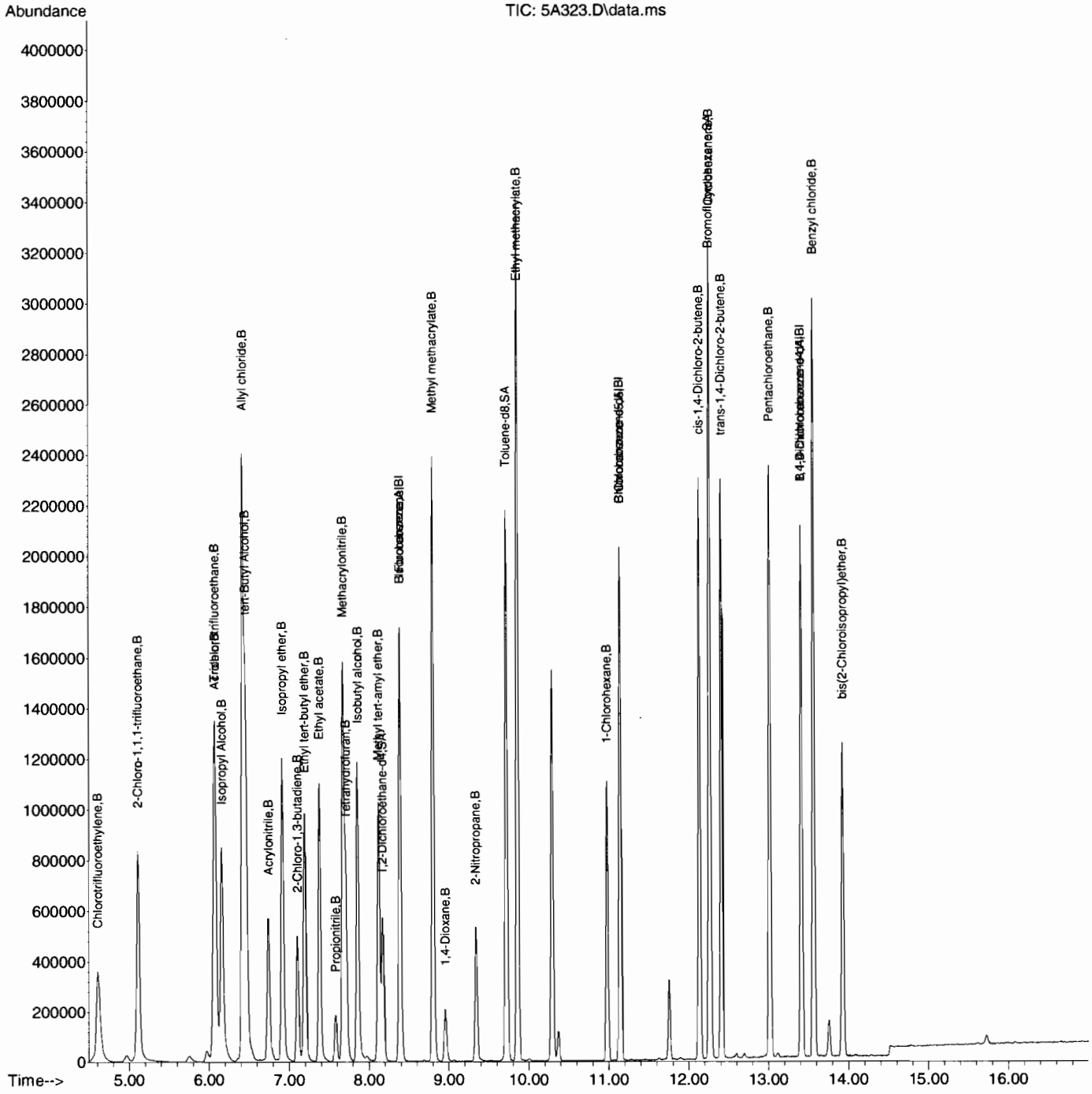
	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	7.861	7.857	0.937	41	595640	2394.15	ug/L	98	
99)	Methyl tert-amyl ether	8.119	8.122	0.968	73	793220	54.25	ug/L	99	
100)	Methyl methacrylate	8.801	8.801	1.049	69	966318	245.07	ug/L	100	
101)	1,4-Dioxane	8.957	8.957	1.068	88	165981	2358.78	ug/L	99	
102)	2-Nitropropane	9.339	9.342	1.113	43	457968	229.40	ug/L	100	
104)	Ethyl methacrylate	9.859	9.859	0.885	69	1882867	249.08	ug/L	100	
106)	1-Chlorohexane	10.976	10.980	0.818	55	308055	46.71	ug/L	100	
107)	cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	610518	248.78	ug/L	99	
108)	Cyclohexanone	12.267	12.267	0.915	42	587226	2910.89	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	12.412	12.412	0.925	53	573129	247.92	ug/L	99	
110)	Pentachloroethane	13.017	13.017	0.970	167	546649	170.75	ug/L	99	
111)	Benzyl chloride	13.565	13.565	1.011	91	2566329	218.37	ug/L	100	
112)	bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	989493	228.84	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A323.D
Acq On : 3 Mar 2010 8:27 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100303-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 10-2198

Instrument ID: VOA5.I **Injection Dat** 11-MAR-10 07:08

Data File: 031110V5\5B402.D **Init. Cal. Date(s)** 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100311-01 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.242	0.17376		.01		-28.19835	30		Averaged	
S	Toluene-d8	1.2787	1.06303		.01		-16.86635	30		Averaged	
S	Bromofluorobenzene	1.0029	1.1393		.01		13.60056	30		Averaged	
	Dichlorodifluoromethane	0.1167	0.12643		.01		8.33762	30		Averaged	
	Chloromethane	50	54.56	50			9.12	30		Linear	spcc
	Vinyl chloride	0.1232	0.13383		.01		8.62825	20		Averaged	ccc
	Bromomethane	0.1177	0.12968		.01		10.17842	30		Averaged	
	Chloroethane	0.1249	0.13049		.01		4.47558	30		Averaged	
	Trichlorofluoromethane	0.2144	0.22904		.01		6.82836	30		Averaged	
	Ethyl ether	0.1846	0.187		.01		1.30011	30		Averaged	
	1,1-Dichloroethylene	0.2389	0.26778		.01		12.08874	20		Averaged	ccc
	Acetone	0.1494	0.15952		.01		6.77376	40		Averaged	
	Methyl acetate	0.1633	0.15954		.01		-2.30251	40		Averaged	
	Iodomethane	0.2468	0.2636		.01		6.80713	30		Averaged	
	Carbon disulfide	0.4789	0.52421		.01		9.46127	30		Averaged	
	Acetonitrile	0.0293	0.02713		.01		-7.40614	30		Averaged	
	Methylene chloride	50	50.7	50			1.4	30		Linear	
	tert-Butyl methyl ether	0.4975	0.48299		.01		-2.91658	30		Averaged	
	trans-1,2-Dichloroethylene	0.2598	0.28586		.01		10.03079	30		Averaged	
	Vinyl acetate	0.4091	0.43942		.01		7.41139	40		Averaged	
	1,1-Dichloroethane	0.3217	0.3495		.1		8.64159	30		Averaged	spcc
	2-Butanone	0.178	0.21162		.01		18.88764	40		Averaged	
	2,2-Dichloropropane	0.2385	0.26494		.01		11.08595	30		Averaged	
	cis-1,2-Dichloroethylene	0.3022	0.3217		.01		6.45268	30		Averaged	
	Chloroform	0.2882	0.3008		.01		4.37196	20		Averaged	ccc
	Bromochloromethane	0.0893	0.09368		.01		4.90482	30		Averaged	
	1,1,1-Trichloroethane	0.2377	0.26149		.01		10.00841	30		Averaged	
	Cyclohexane	0.3381	0.38117		.01		12.73883	30		Averaged	
	1,1-Dichloropropene	0.218	0.23983		.01		10.01376	30		Averaged	
	Carbon tetrachloride	0.2039	0.23058		.01		13.08485	30		Averaged	
	Benzene	0.7238	0.74333		.01		2.69826	30		Averaged	
	1,2-Dichloroethane	0.249	0.25507		.01		2.43775	30		Averaged	
	Cyclohexene	0.3364	0.36811		.01		9.42628	30		Averaged	
	n-Butyl alcohol	5000	4961.07	5000			-0.7786	40		Linear	
	Trichloroethylene	0.1719	0.17873		.01		3.97324	30		Averaged	
	Methylcyclohexane	0.3141	0.33917		.01		7.98153	30		Averaged	
	1,2-Dichloropropane	0.2044	0.21032		.01		2.89628	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Dat** 11-MAR-10 07:08

Data File: 031110V5\5B402.D **Init. Cal. Date(s)** 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100311-01 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1039	0.11118		.01		7.00674	30		Averaged	
Bromodichloromethane	0.2124	0.22823		.01		7.45292	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.06227		.01		-4.64012	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.30649		.01		5.39546	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.13582		.01		13.56187	40		Averaged	
Toluene	1.0734	1.05847		.01		-1.39091	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.37657		.01		3.00055	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.17707		.01		-2.22529	30		Averaged	
2-Hexanone	0.3247	0.3984		.01		22.69787	40		Averaged	
Tetrachloroethylene	0.1966	0.19737		.01		0.39166	30		Averaged	
1,3-Dichloropropane	0.3892	0.3832		.01		-1.54162	30		Averaged	
Dibromochloromethane	0.2155	0.22806		.01		5.82831	30		Averaged	
1,2-Dibromoethane	0.2099	0.20592		.01		-1.89614	30		Averaged	
Chlorobenzene	0.6963	0.68066		.3		-2.24616	30		Averaged	spcc
Ethylbenzene	1.2247	1.19182		.01		-2.68474	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.24382		.01		3.35735	30		Averaged	
m,p-Xylenes	0.4639	0.46855		.01		1.00237	30		Averaged	
o-Xylene	0.4688	0.46849		.01		-0.06613	30		Averaged	
Styrene	0.7161	0.75345		.01		5.21575	30		Averaged	
Bromoform	0.2722	0.2909		.1		6.86995	30		Averaged	spcc
Isopropylbenzene	2.2942	2.34093		.01		2.03688	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.5569		.3		-6.21421	30		Averaged	spcc
n-Propylbenzene	2.7698	2.78278		.01		0.46863	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.149		.01		-5.99369	30		Averaged	
Bromobenzene	0.5771	0.54546		.01		-5.48259	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.97365		.01		0.7324	30		Averaged	
2-Chlorotoluene	0.5751	0.56871		.01		-1.11111	30		Averaged	
4-Chlorotoluene	1.761	1.69879		.01		-3.53265	30		Averaged	
tert-Butylbenzene	0.451	0.43948		.01		-2.55432	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	2.00397		.01		0.53025	30		Averaged	
sec-Butylbenzene	2.5353	2.61728		.01		3.23354	30		Averaged	
4-Isopropyltoluene	2.0151	2.09278		.01		3.8549	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.06026		.01		-3.24329	30		Averaged	
1,4-Dichlorobenzene	1.114	1.07102		.01		-3.85817	30		Averaged	
n-Butylbenzene	1.9788	2.00781		.01		1.46604	30		Averaged	
1,2-Dichlorobenzene	1.0534	1.00929		.01		-4.18739	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.10429		.01		-7.70796	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Date** 11-MAR-10 07:08

Data File: 031110V5\5B402.D **Init. Cal. Date(s)** 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100311-01 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7094	0.7231		.01		1.93121	30		Averaged
Hexachlorobutadiene	0.4309	0.45124		.01		4.72035	30		Averaged
Naphthalene	1.6113	1.57746		.01		-2.10017	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.6246		.01		0.88839	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B402.D
Acq On : 11 Mar 2010 7:08 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100311-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 07:21:23 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1428247	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1072946	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	550065	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1428247	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1072946	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	550065	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	248173	35.90	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1140573	41.57	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	626687	56.80	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	180577	54.15	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	231545	54.56	ug/L	98
4) Vinyl chloride	5.041	5.041	0.601	62	191148	54.31	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	185217	55.10	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	186367	52.22	ug/L	100
7) Trichlorofluoromethane	5.705	5.695	0.680	101	327129	53.40	ug/L	100
8) Ethyl ether	5.867	5.866	0.699	59	267078	50.64	ug/L	97
9) Acetone	6.170	6.174	0.736	43	1139153	266.93	ug/L	100
10) 1,1-Dichloroethylene	6.153	6.156	0.734	61	382453	56.04	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	1882423	267.06	ug/L	100
12) Acetonitrile	6.460	6.464	0.770	41	968733	1158.22	ug/L	97
13) Methyl acetate	6.361	6.365	0.758	43	1139323	244.30	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3743515	273.67	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	276081	50.70	ug/L	97
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	689832	48.55	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	408279	55.01	ug/L	98
18) Vinyl acetate	6.966	6.969	0.831	43	3138022	268.53	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	499179	54.32	ug/L	99
20) 2-Butanone	7.447	7.450	0.888	43	1511215	297.22	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	459473	53.23	ug/L	98
22) 2,2-Dichloropropane	7.511	7.514	0.895	77	378395	55.55	ug/L	97
23) Bromochloromethane	7.719	7.719	0.920	128	133800	52.47	ug/L	96
24) Chloroform	7.701	7.701	0.918	83	429611	52.19	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	373475	55.01	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	544405	56.37	ug/L	98
27) 1,1-Dichloropropene	8.006	8.005	0.954	75	342540	55.01	ug/L	98
28) Carbon tetrachloride	8.020	8.020	0.956	117	329324	56.55	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	364298	51.21	ug/L	98
31) Benzene	8.204	8.203	0.978	78	1061661	51.35	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	525758	54.71	ug/L	100
33) n-Butyl alcohol	8.377	8.377	0.999	56	996336	4961.07	ug/L	98
34) Trichloroethylene	8.674	8.677	1.034	95	255271	51.99	ug/L	100
35) 1,2-Dichloropropane	8.929	8.932	1.065	63	300393	51.44	ug/L	100
36) Methylcyclohexane	8.830	8.826	1.053	83	484421	53.99	ug/L	98
37) Dibromomethane	9.059	9.059	1.080	93	158797	53.50	ug/L	98
38) Bromodichloromethane	9.113	9.112	1.086	83	325963	53.73	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	444717	238.36	ug/L	99
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	437745	52.70	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B402.D
Acq On : 11 Mar 2010 7:08 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100311-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 07:21:23 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	728626	283.98	ug/L	97
44) Toluene	9.788	9.788	0.878	91	1135683	49.30	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	404038	51.50	ug/L	100
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	189984	48.88	ug/L	99
47) 2-Hexanone	10.280	10.279	0.923	43	2137325	306.77	ug/L	99
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	411158	49.23	ug/L	98
49) Tetrachloroethylene	10.294	10.290	0.924	164	211765	50.19	ug/L	98
50) Dibromochloromethane	10.587	10.583	0.950	129	244701	52.92	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	220944	49.06	ug/L	99
52) Chlorobenzene	11.174	11.174	1.003	112	730310	48.88	ug/L	98
53) 1,1,1,2-Tetrachloroethane	11.213	11.216	1.006	131	261605	51.68	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1278759	48.66	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1005462	101.00	ug/L	100
56) o-Xylene	11.701	11.701	1.050	106	502663	49.97	ug/L	99
57) Styrene	11.712	11.715	1.051	104	808412	52.61	ug/L	93
59) Bromoform	12.005	12.005	0.895	173	160013	53.43	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1287664	51.02	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	306333	46.89	ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	81961	46.99	ug/L #	83
64) Bromobenzene	12.465	12.465	0.929	156	300038	47.26	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1530710	50.23	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1085635	50.37	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	312828	49.44	ug/L #	81
68) 4-Chlorotoluene	12.698	12.698	0.947	91	934443	48.23	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	241741	48.72	ug/L	100
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1102315	50.27	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1439674	51.62	ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1151165	51.93	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	583210	48.38	ug/L	100
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	589131	48.07	ug/L	100
75) n-Butylbenzene	13.653	13.653	1.018	91	1104427	50.73	ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	555175	47.91	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	57365	46.13	ug/L	99
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	397752	50.97	ug/L	100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	248212	52.36	ug/L	99
80) Naphthalene	15.989	15.988	1.192	128	867708	48.95	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	343572	50.45	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.177	6.163	0.736		0m	N.D.	d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.460	6.460	0.770		0m	N.D.	d	
90) Acrylonitrile	6.641	6.747	0.792		0m	N.D.	d	
91) Isopropyl ether	6.966	6.920	0.831		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.033	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.051	7.192	0.841		0m	N.D.	d	
94) Ethyl acetate	7.376	7.383	0.879		0m	N.D.	d	
95) Propionitrile	7.670	7.585	0.914		0m	N.D.	d	
96) Methacrylonitrile	7.666	7.680	0.914		0m	N.D.	d	
97) Tetrahydrofuran	7.719	7.716	0.920		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B402.D
Acq On : 11 Mar 2010 7:08 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100311-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 07:21:23 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

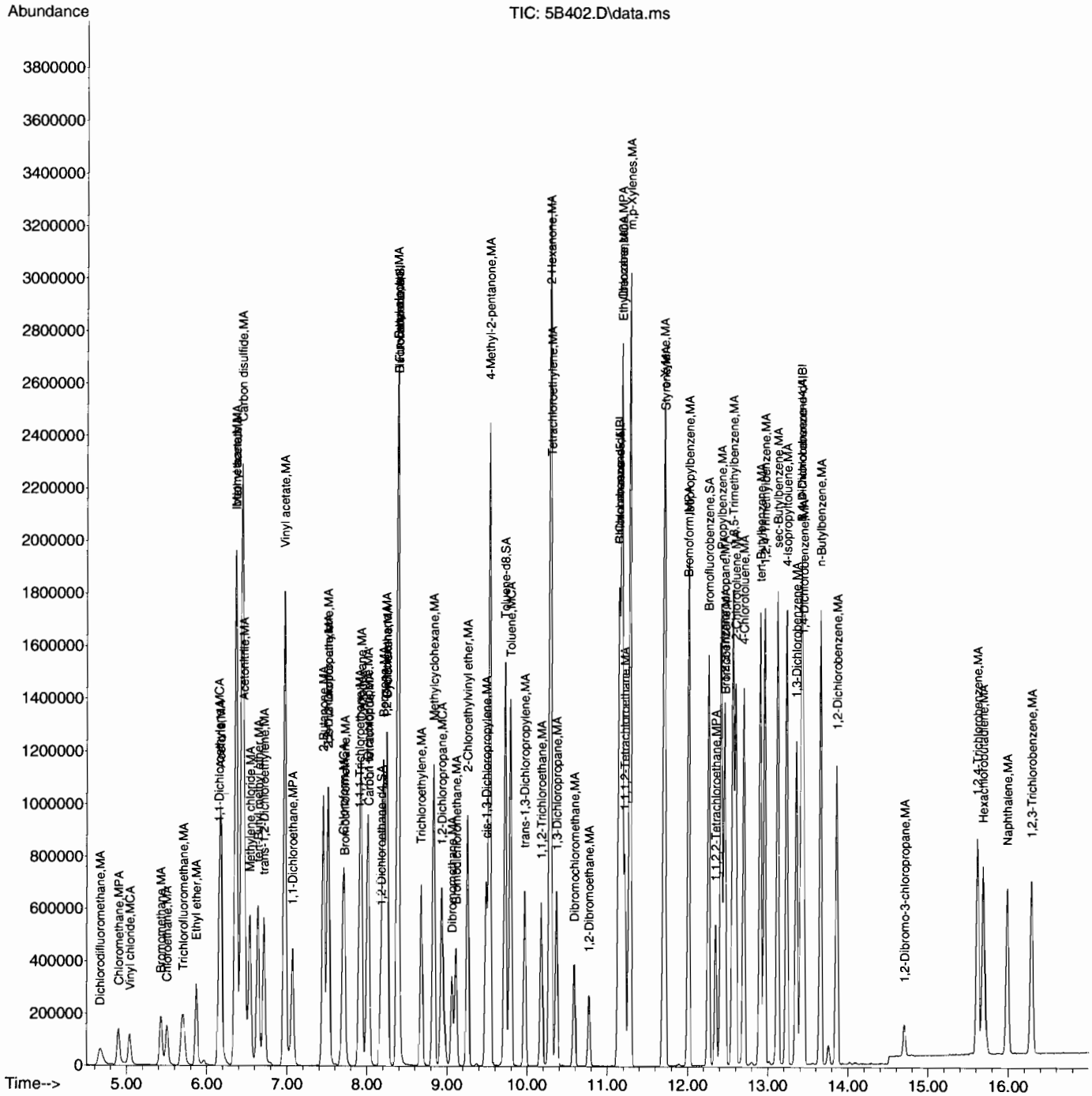
	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	7.747	7.857	0.924		0m	N.D.	d
99)	Methyl tert-amyl ether	8.207	8.122	0.978		0m	N.D.	d
100)	Methyl methacrylate	8.830	8.801	1.053		0m	N.D.	d
101)	1,4-Dioxane	9.063	8.957	1.081		0m	N.D.	d
102)	2-Nitropropane	9.371	9.342	1.117		0m	N.D.	d
104)	Ethyl methacrylate	9.855	9.859	0.884		0m	N.D.	d
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	12.133	12.136	0.905		0m	N.D.	d
108)	Cyclohexanone	12.263	12.267	0.914		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.415	12.412	0.926		0m	N.D.	d
110)	Pentachloroethane	13.017	13.017	0.970		0m	N.D.	d
111)	Benzyl chloride	13.568	13.565	1.012		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	13.915	13.929	1.037		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B402.D
Acq On : 11 Mar 2010 7:08 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100311-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 07:21:23 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 10-2198

Instrument ID: VOA5.I **Injection Dat** 11-MAR-10 08:27

Data File: 031110V5\5B405.D **Init. Cal. Date(s)** 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100311-04 **Quant Type** ISTD **Method:** 030310V5\VOA5-8260-030310.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.242	0.17886		.01		-26.09091	30		Averaged
S	Toluene-d8	1.2787	1.06084		.01		-17.03762	30		Averaged
S	Bromofluorobenzene	1.0029	1.15668		.01		15.33353	30		Averaged
	Trichlorotrifluoroethane	0.0448	0.06026		.01		34.50893	30	*	Averaged
	Acrolein	250	260.66	250			4.264	30		Linear
	Allyl chloride	0.3291	0.29552		.01		-10.20359	30		Averaged
	Acrylonitrile	0.0724	0.07077		.01		-2.25138	30		Averaged
	2-Chloro-1,3-butadiene	0.2124	0.27591		.01		29.90113	30		Averaged
	Ethyl acetate	0.196	0.179		.01		-8.67347	40		Averaged
	Propionitrile	0.0278	0.0276		.01		-0.71942	30		Averaged
	Methacrylonitrile	0.153	0.14848		.01		-2.95425	30		Averaged
	Tetrahydrofuran	0.0692	0.06682		.01		-3.43931	30		Averaged
	Isobutyl alcohol	0.0073	0.00693		.01		-5.06849	40		Averaged
	Methyl methacrylate	0.1155	0.11451		.01		-0.85714	30		Averaged
	1,4-Dioxane	0.0021	0.00181		.01		-13.80952	40		Averaged
	2-Nitropropane	250	241.26	250			-3.496	30		Linear
	Ethyl methacrylate	0.2951	0.29774		.01		0.89461	30		Averaged
	cis-1,4-Dichloro-2-butene	0.187	0.2019		.01		7.96791	30		Averaged
	Cyclohexanone	0.0154	0.0597		.01		287.66234	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1761	0.18941		.01		7.55821	30		Averaged
	Pentachloroethane	0.2439	0.28721		.01		17.75728	30		Averaged
	Benzyl chloride	0.8953	1.01427		.01		13.28828	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3294	0.29517		.01		-10.39162	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405.D
Acq On : 11 Mar 2010 8:27 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5G - SOIL MIX[B]UVM100215-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.388	8.387	1.000	96	1397071	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1397071	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	249884	36.96	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1118838	41.48	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	621626	57.67	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.170	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.064	6.156	0.723		0m	N.D.	d	
11) Iodomethane	6.354	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.542	6.538	0.780		0m	N.D.	d	
16) tert-Butyl methyl ether	6.634	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.973	6.969	0.831		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.380	7.450	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.380	7.507	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.854	7.924	0.936		0m	N.D.	d	
27) 1,1-Dichloropropene	8.122	8.005	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.193	8.203	0.977		0m	N.D.	d	
32) Cyclohexene	8.250	8.246	0.984		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.798	8.826	1.049		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	9.480	9.487	1.130		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405.D
Acq On : 11 Mar 2010 8:27 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5G - SOIL MIX[B]UVM100215-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.519	9.526	0.854		0m	N.D.	d	
44) Toluene	9.792	9.788	0.879		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	9.972	9.968	0.895		0m	N.D.	d	
46) 1,1,2-Trichloroethane	10.287	10.173	0.923		0m	N.D.	d	
47) 2-Hexanone	10.276	10.279	0.922		0m	N.D.	d	
48) 1,3-Dichloropropane	10.368	10.364	0.930		0m	N.D.	d	
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	10.764	10.771	0.966		0m	N.D.	d	
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.		
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D.	d	
55) m,p-Xylenes	11.280	11.280	1.012		0m	N.D.	d	
56) o-Xylene	11.701	11.701	1.050		0m	N.D.	d	
57) Styrene	11.715	11.715	1.051		0m	N.D.	d	
59) Bromoform	0.000	12.005	0.000		0	N.D.		
60) Isopropylbenzene	12.012	12.016	0.896		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	12.408	12.348	0.925		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	12.461	12.465	0.929		0m	N.D.	d	
65) n-Propylbenzene	12.408	12.415	0.925		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	12.561	12.564	0.936		0m	N.D.	d	
67) 2-Chlorotoluene	12.596	12.596	0.939		0m	N.D.	d	
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d	
69) tert-Butylbenzene	12.907	12.900	0.962		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d	
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d	
72) 4-Isopropyltoluene	13.232	13.229	0.987		0m	N.D.	d	
73) 1,3-Dichlorobenzene	13.356	13.349	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d	
75) n-Butylbenzene	13.653	13.653	1.018		0m	N.D.	d	
76) 1,2-Dichlorobenzene	13.858	13.858	1.033		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164		0m	N.D.	d	
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D.	d	
80) Naphthalene	15.981	15.988	1.191		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	6.082	6.082	0.725	56	209673	260.66	ug/L	99
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	420908	336.02	ug/L	100
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d	
88) Allyl chloride	6.421	6.425	0.766	41	2064299	224.51	ug/L	93
89) tert-Butyl Alcohol	6.421	6.460	0.766	59	764	N.D.		
90) Acrylonitrile	6.743	6.747	0.804	53	494368	244.54	ug/L	100
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	385462	64.96	ug/L	100
93) Ethyl tert-butyl ether	7.369	7.192	0.879	59	107	N.D.		
94) Ethyl acetate	7.380	7.383	0.880	43	1250386	228.37	ug/L	99
95) Propionitrile	7.585	7.585	0.904	54	192800	247.77	ug/L	99
96) Methacrylonitrile	7.677	7.680	0.915	41	1037180	242.54	ug/L	100
97) Tetrahydrofuran	7.709	7.716	0.919	42	466766	241.52	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405.D
Acq On : 11 Mar 2010 8:27 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5G - SOIL MIX[B]UVM100215-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98) Isobutyl alcohol	7.861	7.857	0.937	41	483945	2377.09	ug/L	98	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.			
100) Methyl methacrylate	8.801	8.801	1.049	69	799913	247.91	ug/L	97	
101) 1,4-Dioxane	8.957	8.957	1.068	88	126561	2197.92	ug/L	99	
102) 2-Nitropropane	9.342	9.342	1.114	43	394732	241.26	ug/L	99	
104) Ethyl methacrylate	9.859	9.859	0.885	69	1570077	252.20	ug/L	98	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.			
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	542526	269.96	ug/L	100	
108) Cyclohexanone	12.267	12.267	0.915	42	802097	4855.37	ug/L	97	E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	508969	268.86	ug/L	98	
110) Pentachloroethane	13.013	13.017	0.970	167	771770	294.39	ug/L	99	
111) Benzyl chloride	13.565	13.565	1.011	91	2725462	283.21	ug/L	100	
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	793167	224.01	ug/L	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405.D
Acq On    : 11 Mar 2010   8:27 am
Operator  : CDS1
InstName  : VOA5
Sample    : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|
Misc      : CCV 5G - SOIL MIX[B ]UVM100215-08B
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE
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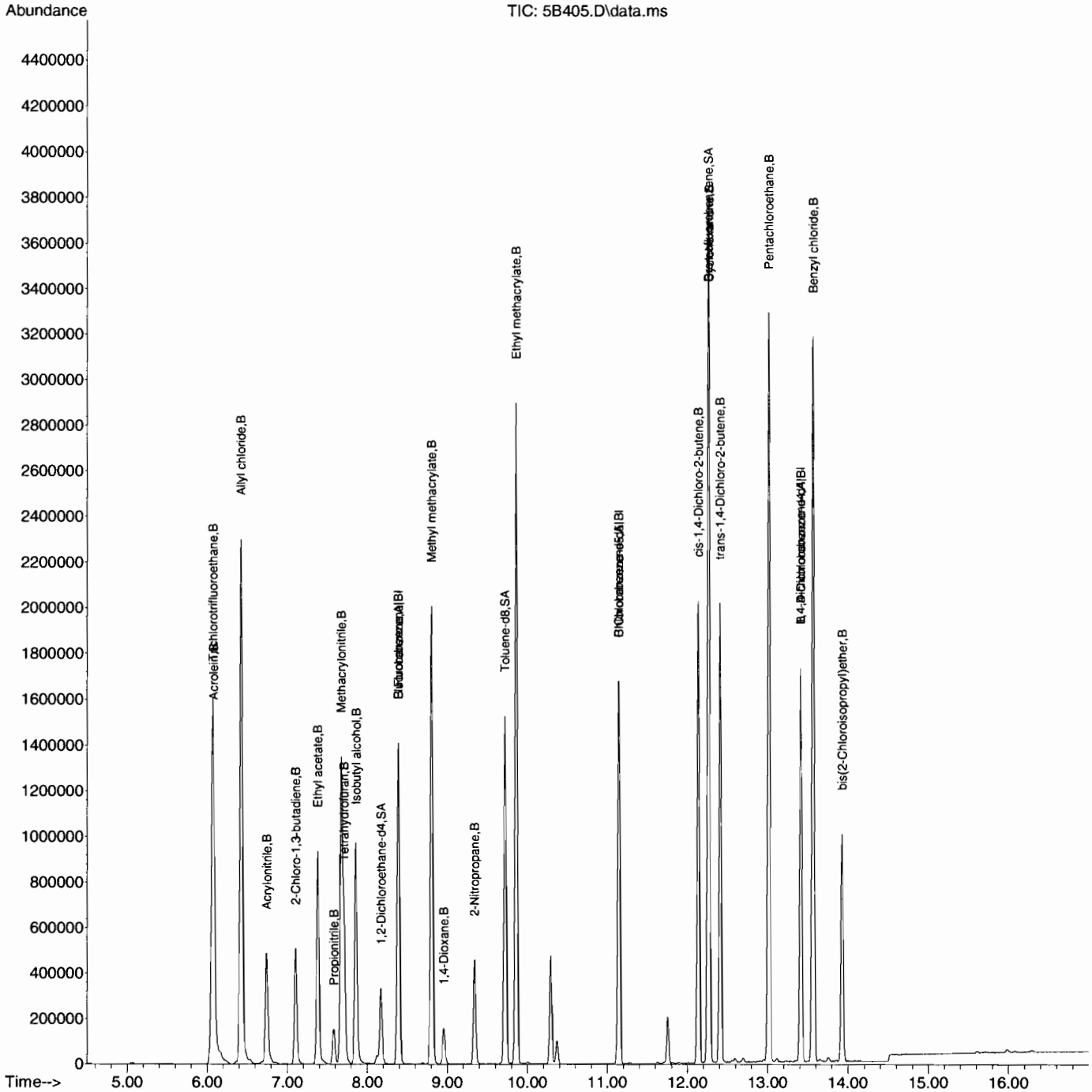


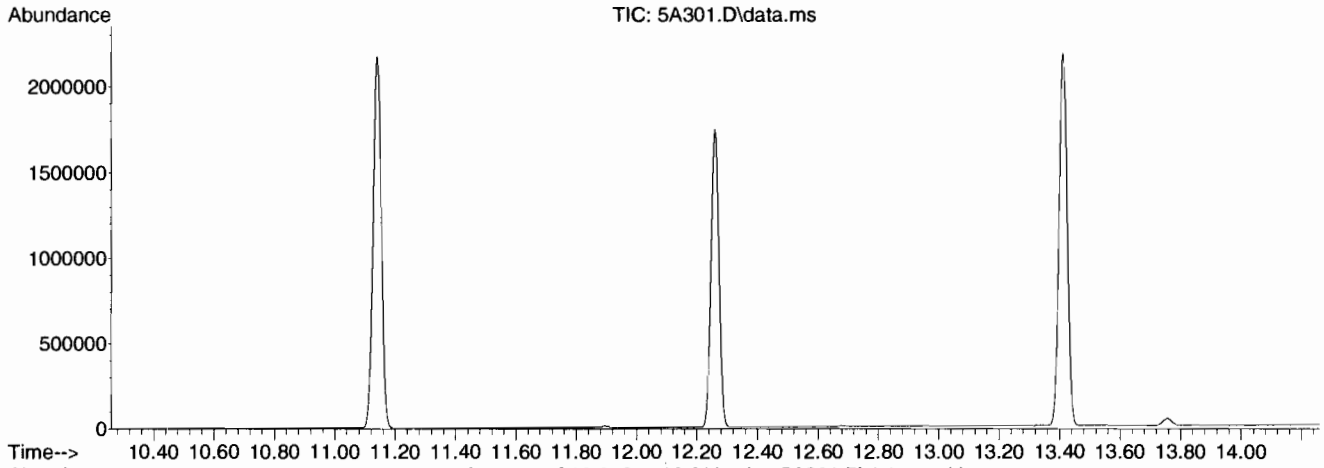
Quality Control Data

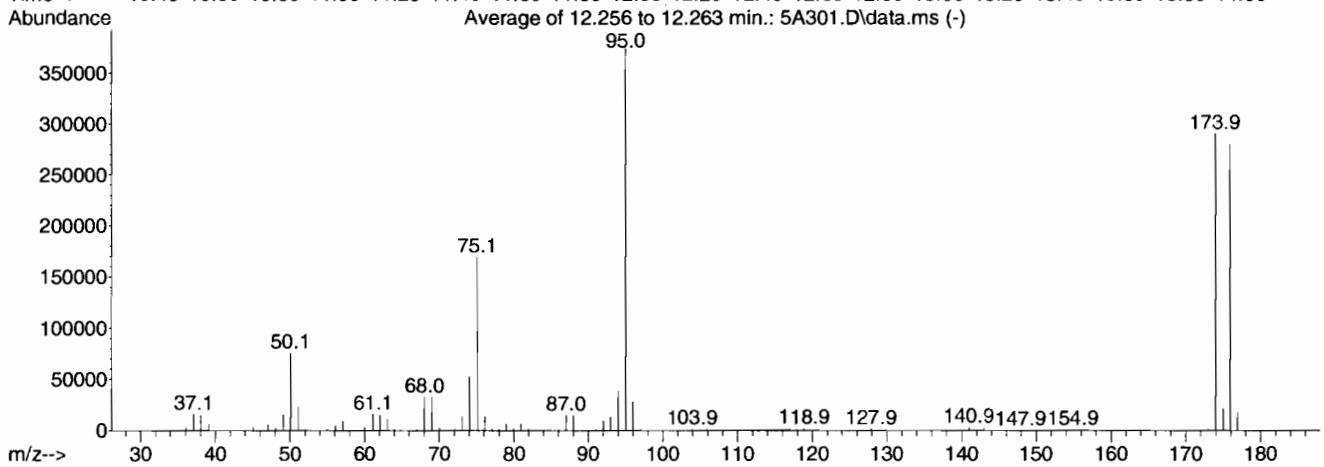
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\
Data File : 5A301.D
Acq On : 3 Mar 2010 11:00 am
Operator : CDS1
Sample : |UVM100203-02|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Title : Volatile Organics 8260B SubList :
Last Update : Fri Mar 05 15:47:51 2010





Spectrum Information: Average of 12.256 to 12.263 min.

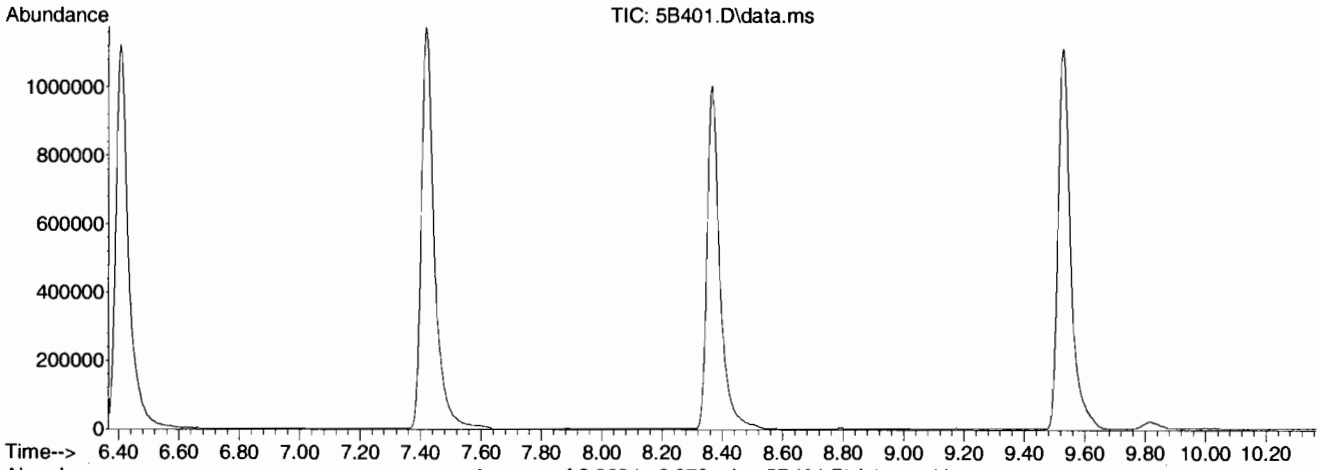
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	75616	PASS
75	95	30	60	45.2	169109	PASS
95	95	100	100	100.0	373952	PASS
96	95	5	9	7.4	27492	PASS
173	174	0.00	2	0.6	1817	PASS
174	95	50	100	77.7	290688	PASS
175	174	5	9	7.4	21371	PASS
176	174	95	101	96.2	279659	PASS
177	176	5	9	6.3	17646	PASS

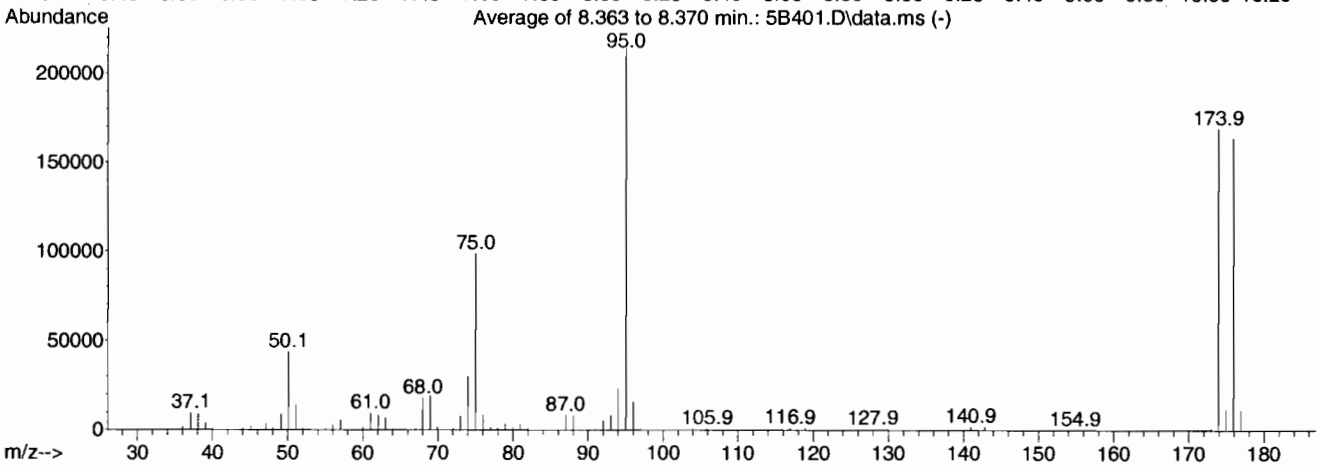
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B401.D
Acq On : 11 Mar 2010 6:41 am
Operator : CDS1
Sample : |UVM100217-02|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 09 07:08:19 2010





Spectrum Information: Average of 8.363 to 8.370 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	43597	PASS
75	95	30	60	46.0	98624	PASS
95	95	100	100	100.0	214549	PASS
96	95	5	9	7.5	16033	PASS
173	174	0.00	2	0.5	889	PASS
174	95	50	100	78.8	169067	PASS
175	174	5	9	6.8	11523	PASS
176	174	95	101	96.8	163669	PASS
177	176	5	9	7.0	11476	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202067627**				
Client Sample:	**QC for batch 963808**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 963808**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 09:20**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B407BS2.D**	**Column:**	**DB-624**		

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202067627**				
Client Sample:	**QC for batch 963808**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 963808**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 09:20**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B407BS2.D**	**Column:**	**DB-624**		

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

Tentatively Identified Compound Summary

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

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B407BS2.D
Acq On : 11 Mar 2010 9:20 am
Operator : CDS1
InstName : VOA5
Sample : |1202067627|963809|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 17:16:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1402275	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1039581	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	502993	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1402275	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1039581	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	502993	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	239195	35.24	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 70.48%					
43) Toluene-d8	9.721	9.721	0.872	98	1116666	42.00	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 84.00%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	606779	60.14	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 120.28%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.900	4.900	0.584	50	527	Below Cal		97
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	0.000	5.866	0.000		0	N.D.		
9) Acetone	6.170	6.174	0.736	43	762	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.467	6.464	0.771	41	373	N.D.		
13) Methyl acetate	6.191	6.365	0.738	43	245	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	844	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	3919	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.800	6.969	0.811	43	2172	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.196	8.203	0.977	78	118	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	8.391	8.377	1.000	56	8241	Below Cal	#	20
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B407BS2.D
Acq On : 11 Mar 2010 9:20 am
Operator : CDS1
InstName : VOA5
Sample : |1202067627|963809|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 17:16:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44)	Toluene	9.774	9.788	0.877	91	2188	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47)	2-Hexanone	10.272	10.279	0.922	43	249	N.D.	
48)	1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52)	Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54)	Ethylbenzene	11.178	11.181	1.003	91	244	N.D.	
55)	m,p-Xylenes	0.000	11.280	0.000		0	N.D.	
56)	o-Xylene	0.000	11.701	0.000		0	N.D.	
57)	Styrene	0.000	11.715	0.000		0	N.D.	
59)	Bromoform	0.000	12.005	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	12.016	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64)	Bromobenzene	0.000	12.465	0.000		0	N.D.	
65)	n-Propylbenzene	12.412	12.415	0.925	91	1720	N.D.	
66)	1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	215	N.D.	
67)	2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68)	4-Chlorotoluene	12.695	12.698	0.946	91	1372	N.D.	
69)	tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	671	N.D.	
71)	sec-Butylbenzene	13.108	13.119	0.977	105	842	N.D.	
72)	4-Isopropyltoluene	13.299	13.229	0.992	119	1017	N.D.	
73)	1,3-Dichlorobenzene	13.342	13.349	0.995	146	108	N.D.	
74)	1,4-Dichlorobenzene	13.441	13.441	1.002	146	497	N.D.	
75)	n-Butylbenzene	13.650	13.653	1.018	91	2339	N.D.	
76)	1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	15.620	15.619	1.165	180	837	N.D.	
79)	Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80)	Naphthalene	0.000	15.988	0.000		0m	N.D.	d
81)	1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	712	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85)	Acrolein	0.000	6.082	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88)	Allyl chloride	6.446	6.425	0.769	41	109	N.D.	
89)	tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90)	Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91)	Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94)	Ethyl acetate	0.000	7.383	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B407BS2.D
Acq On : 11 Mar 2010 9:20 am
Operator : CDS1
InstName : VOA5
Sample : |1202067627|963809|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 17:16:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

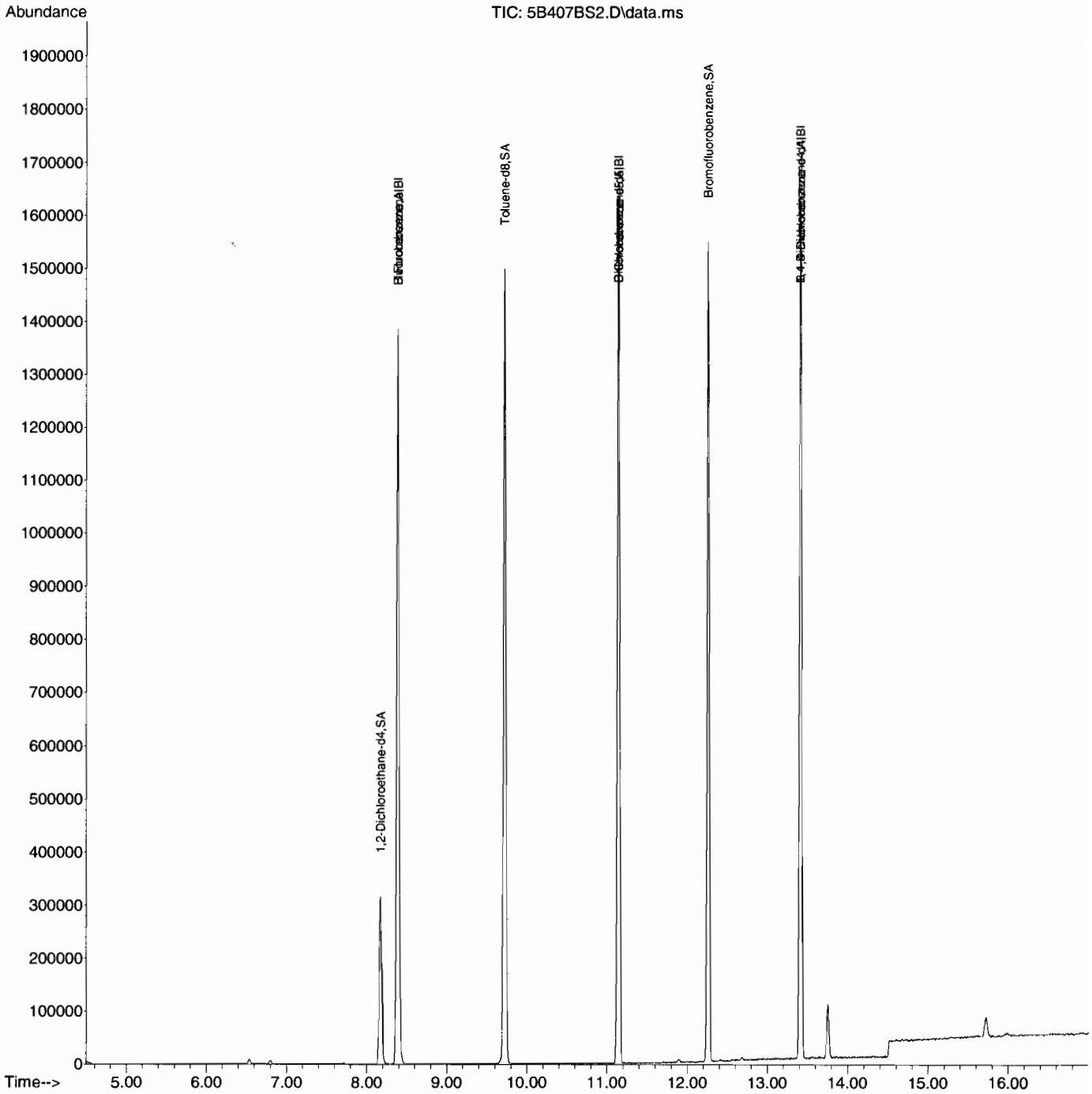
	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.585	0.000		0	N.D.	
96)	Methacrylonitrile	7.712	7.680	0.919	41	229	N.D.	
97)	Tetrahydrofuran	7.705	7.716	0.919	42	113	N.D.	
98)	Isobutyl alcohol	7.744	7.857	0.923	41	107	N.D.	
99)	Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102)	2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108)	Cyclohexanone	12.263	12.267	0.914	42	229	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.565	13.565	1.011	91	3422	N.D.	
112)	bis(2-Chloroisopropyl)...	13.932	13.929	1.039	45	132	N.D.	

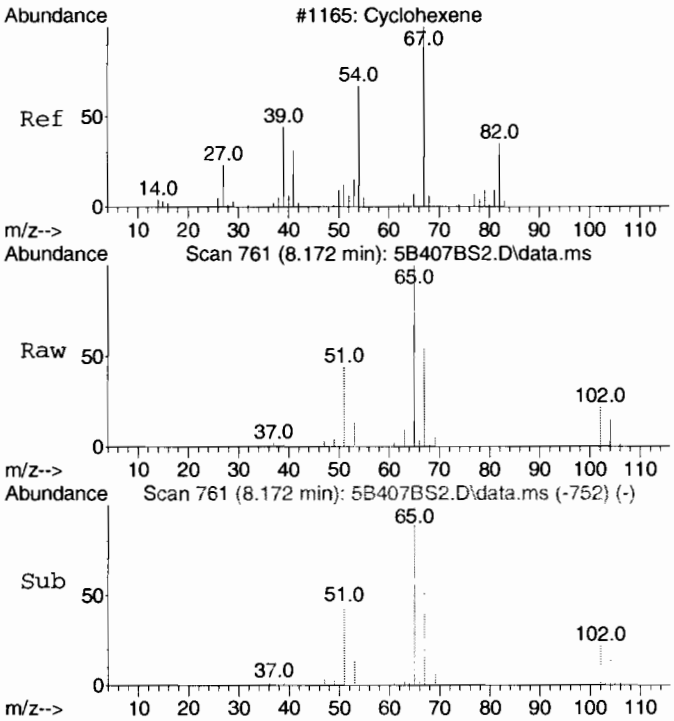
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B407BS2.D
Acq On : 11 Mar 2010 9:20 am
Operator : CDS1
InstName : VOA5
Sample : |1202067627|963809|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 17:16:25 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

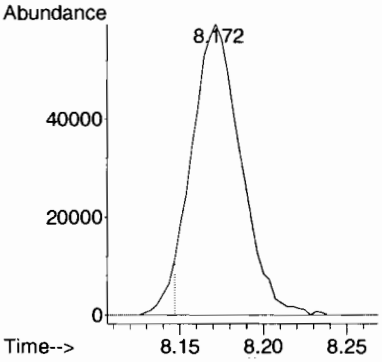


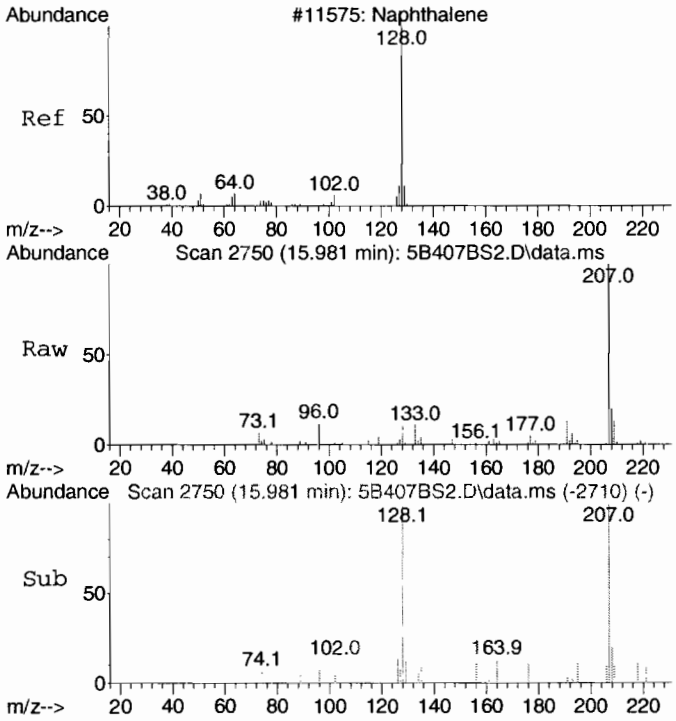


#32 BEFORE analyst DELETION
Cyclohexene
Concen: 12.52 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5B407BS2.D
Acq: 11 Mar 2010 9:20 am

Tgt Ion: 67 Resp: 118132

Ion	Ratio	Lower	Upper
67	100		
54	0.0	46.3	106.3#

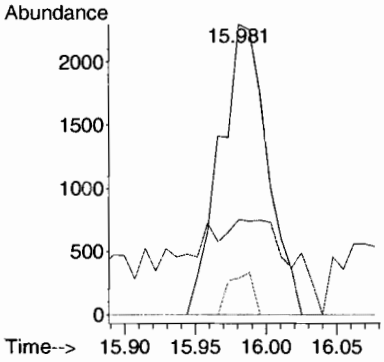




#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.33 ug/L
RT: 15.981 min Scan# 2750
Delta R.T. -0.007 min
Lab File: 5B407BS2.D
Acq: 11 Mar 2010 9:20 am

Tgt Ion:128 Resp: 5333

Ion	Ratio	Lower	Upper
128	100		
127	77.1	0.0	42.4#
129	7.4	0.0	40.8



Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B407BS2.D
Acq On : 11 Mar 2010 9:20 am
Operator : CDS1
Sample : |1202067627|963809|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B407BS2.D
Acq On : 11 Mar 2010 9:20 am
Operator : CDS1
Sample : |1202067627|963809|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202067630**				
Client Sample:	**QC for batch 963808**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 963808**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 08:01**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B404LS2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		58.5	ug/kg	0.340	1.00
74-87-3	Chloromethane		54.5	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		58.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		54.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		54.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		58.7	ug/kg	0.300	1.00
67-64-1	Acetone		232	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		54.6	ug/kg	0.300	1.00
74-88-4	Iodomethane		261	ug/kg	1.60	5.00
75-09-2	Methylene chloride		51.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		282	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		55.0	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		54.7	ug/kg	0.300	1.00
78-93-3	2-Butanone		240	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		53.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		56.1	ug/kg	0.300	1.00
67-66-3	Chloroform		53.2	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		53.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		56.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		56.2	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		57.7	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		52.1	ug/kg	0.300	1.00
71-43-2	Benzene		51.7	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		53.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		52.4	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		55.5	ug/kg	0.300	1.00
74-95-3	Dibromomethane		53.8	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		256	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		53.4	ug/kg	0.300	1.00
108-88-3	Toluene		49.6	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		51.9	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		235	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		49.7	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		51.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		53.7	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		50.4	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		49.9	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202067630**				
Client Sample:	**QC for batch 963808**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 963808**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 08:01**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B404LS2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		102	ug/kg	0.300	2.00
95-47-6	o-Xylene		50.4	ug/kg	0.300	1.00
100-42-5	Styrene		53.2	ug/kg	0.300	1.00
75-25-2	Bromoform		54.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.7	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		48.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		48.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		49.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		50.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		50.0	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		48.9	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		49.8	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		50.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		51.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		48.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		48.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		50.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		47.6	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.7	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B404LS2.D
Acq On : 11 Mar 2010 8:01 am
Operator : CDS1
InstName : VOA5
Sample : |1202067630|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:29:37 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1393474	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1064611	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	553083	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1393474	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1064611	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	553083	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	250550	37.15	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 74.30%					
43) Toluene-d8	9.721	9.721	0.872	98	1117775	41.05	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 82.10%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	639510	57.65	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 115.30%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	190296	58.49	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	225677	54.50	ug/L	98
4) Vinyl chloride	5.041	5.041	0.601	62	199981	58.24	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	179015	54.59	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	188292	54.07	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	350523	58.65	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	268662	52.21	ug/L	95
9) Acetone	6.174	6.174	0.736	43	967895	232.46	ug/L	100
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	363711	54.62	ug/L	99
11) Iodomethane	6.357	6.357	0.758	142	1793802	260.84	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	987210	1209.77	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1101573	242.10	ug/L	100
14) Carbon disulfide	6.435	6.435	0.767	76	3757922	281.58	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	275595	51.89	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	696732	50.25	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	398279	55.01	ug/L	98
18) Vinyl acetate	6.969	6.969	0.831	43	3417387	299.73	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	490347	54.69	ug/L	99
20) 2-Butanone	7.450	7.450	0.888	43	1190548	239.99	ug/L	99
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	450813	53.53	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	372785	56.10	ug/L	98
23) Bromochloromethane	7.719	7.719	0.920	128	132745	53.35	ug/L	96
24) Chloroform	7.698	7.701	0.918	83	427198	53.19	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	373048	56.32	ug/L	100
26) Cyclohexane	7.924	7.924	0.945	56	539360	57.24	ug/L	99
27) 1,1-Dichloropropene	8.002	8.005	0.954	75	341172	56.16	ug/L	99
28) Carbon tetrachloride	8.023	8.020	0.957	117	327561	57.65	ug/L	99
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	361529	52.09	ug/L	99
31) Benzene	8.200	8.203	0.978	78	1043662	51.74	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	507223	54.10	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	1024845	5232.66	ug/L	100
34) Trichloroethylene	8.677	8.677	1.035	95	257099	53.67	ug/L	100
35) 1,2-Dichloropropane	8.932	8.932	1.065	63	298548	52.40	ug/L	100
36) Methylcyclohexane	8.829	8.826	1.053	83	483678	55.25	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	155659	53.75	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B404LS2.D
Acq On : 11 Mar 2010 8:01 am
Operator : CDS1
InstName : VOA5
Sample : |1202067630|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:29:37 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	9.109	9.112	1.086	83	328621	55.52	ug/L		99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	410578	225.55	ug/L		99
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	432801	53.41	ug/L		97
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	650794	255.63	ug/L		98
44) Toluene	9.788	9.788	0.878	91	1133278	49.58	ug/L		100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	403747	51.86	ug/L		99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	190412	49.37	ug/L		99
47) 2-Hexanone	10.279	10.279	0.923	43	1621063	234.50	ug/L		100
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	411792	49.69	ug/L		98
49) Tetrachloroethylene	10.293	10.290	0.924	164	216159	51.63	ug/L		99
50) Dibromochloromethane	10.587	10.583	0.950	129	246203	53.66	ug/L		99
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	225419	50.44	ug/L		99
52) Chlorobenzene	11.174	11.174	1.003	112	740375	49.94	ug/L		99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	260574	51.88	ug/L		100
54) Ethylbenzene	11.178	11.181	1.003	91	1266225	48.56	ug/L		100
55) m,p-Xylenes	11.280	11.280	1.012	106	1008223	102.07	ug/L		99
56) o-Xylene	11.697	11.701	1.050	106	502903	50.39	ug/L		99
57) Styrene	11.712	11.715	1.051	104	811763	53.24	ug/L		93
59) Bromoform	12.005	12.005	0.895	173	163765	54.39	ug/L		99
60) Isopropylbenzene	12.012	12.016	0.896	105	1281854	50.51	ug/L		99
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	313058	47.66	ug/L		100
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	85587	48.80	ug/L	#	90
64) Bromobenzene	12.461	12.465	0.929	156	306243	47.98	ug/L		99
65) n-Propylbenzene	12.415	12.415	0.926	91	1522034	49.68	ug/L		99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1083770	50.01	ug/L		100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	313234	49.24	ug/L	#	80
68) 4-Chlorotoluene	12.698	12.698	0.947	91	940301	48.27	ug/L		100
69) tert-Butylbenzene	12.900	12.900	0.962	134	243826	48.87	ug/L		99
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1097407	49.77	ug/L		100
71) sec-Butylbenzene	13.115	13.119	0.978	105	1424819	50.81	ug/L		99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1138818	51.09	ug/L		99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	590201	48.69	ug/L		100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	597250	48.47	ug/L		100
75) n-Butylbenzene	13.653	13.653	1.018	91	1094849	50.02	ug/L		99
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	566891	48.65	ug/L		100
77) 1,2-Dibromo-3-chloropr...	14.704	14.704	1.096	157	59452	47.55	ug/L		99
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	399320	50.89	ug/L		99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	246575	51.73	ug/L		99
80) Naphthalene	15.988	15.988	1.192	128	897785	50.37	ug/L		100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	362064	52.87	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.			
85) Acrolein	0.000	6.082	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.			
87) Isopropyl Alcohol	6.174	6.163	0.736		0m	N.D.	d		
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d		
89) tert-Butyl Alcohol	6.471	6.460	0.771		0m	N.D.	d		
90) Acrylonitrile	6.644	6.747	0.792		0m	N.D.	d		
91) Isopropyl ether	6.909	6.920	0.824		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	7.036	7.104	0.839		0m	N.D.	d		
93) Ethyl tert-butyl ether	7.181	7.192	0.856		0m	N.D.	d		
94) Ethyl acetate	7.387	7.383	0.881		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B404LS2.D
Acq On : 11 Mar 2010 8:01 am
Operator : CDS1
InstName : VOA5
Sample : |1202067630|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:29:37 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

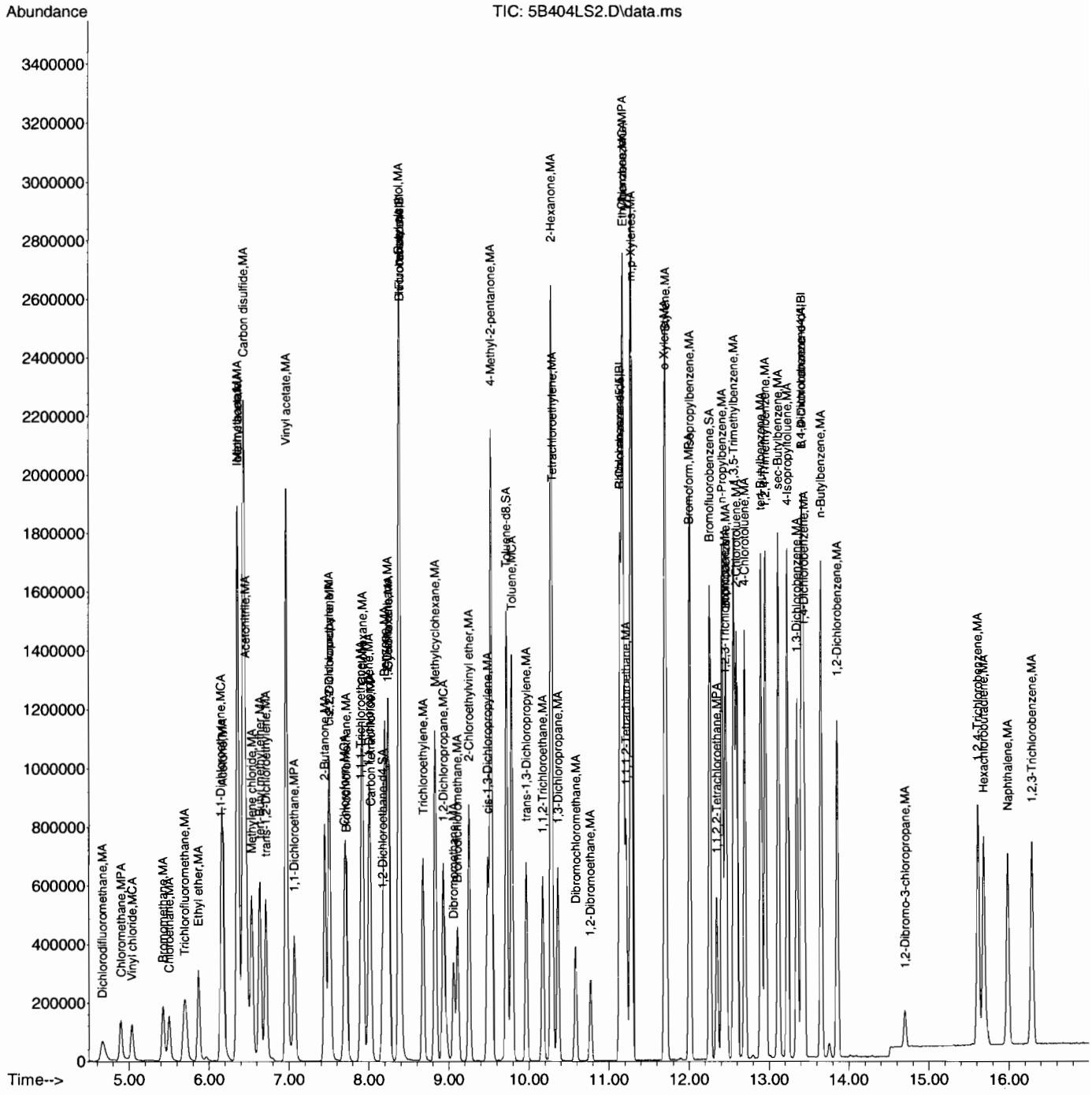
	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	7.669	7.585	0.914		0m	N.D.	d
96)	Methacrylonitrile	7.669	7.680	0.914		0m	N.D.	d
97)	Tetrahydrofuran	7.712	7.716	0.919		0m	N.D.	d
98)	Isobutyl alcohol	7.800	7.857	0.930		0m	N.D.	d
99)	Methyl tert-amyl ether	8.126	8.122	0.969		0m	N.D.	d
100)	Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101)	1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102)	2-Nitropropane	9.370	9.342	1.117		0m	N.D.	d
104)	Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	12.012	12.136	0.896		0m	N.D.	d
108)	Cyclohexanone	12.359	12.267	0.921		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.408	12.412	0.925		0m	N.D.	d
110)	Pentachloroethane	13.016	13.017	0.970		0m	N.D.	d
111)	Benzyl chloride	13.568	13.565	1.012		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	13.897	13.929	1.036		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B404LS2.D
Acq On : 11 Mar 2010 8:01 am
Operator : CDS1
InstName : VOA5
Sample : |1202067630|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:29:37 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202067631**				
Client Sample:	**QC for batch 963808**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 963808**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 08:27**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B405SLS2.D**	**Column:**	**DB-624**		

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202067631**				
Client Sample:	**QC for batch 963808**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 963808**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**963809**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/11/2010 08:27**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/11/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031110V5\5B405SLS2.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		336	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405SLS2.D
Acq On : 11 Mar 2010 8:27 am
Operator : CDS1
InstName : VOA5
Sample : |1202067631|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[B]UVM100215-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.388	8.387	1.000	96	1397071	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1397071	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	249884	36.96	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 73.92%					
43) Toluene-d8	9.721	9.721	0.872	98	1118838	41.48	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 82.96%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	621626	57.67	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 115.34%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.170	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.064	6.156	0.723		0m	N.D.	d	
11) Iodomethane	6.354	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.542	6.538	0.780		0m	N.D.	d	
16) tert-Butyl methyl ether	6.634	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.973	6.969	0.831		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.380	7.450	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.380	7.507	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.854	7.924	0.936		0m	N.D.	d	
27) 1,1-Dichloropropene	8.122	8.005	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.193	8.203	0.977		0m	N.D.	d	
32) Cyclohexene	8.250	8.246	0.984		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.798	8.826	1.049		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405SLS2.D
Acq On : 11 Mar 2010 8:27 am
Operator : CDS1
InstName : VOA5
Sample : |1202067631|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[B]UVM100215-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	9.480	9.487	1.130		0m	N.D.	d	
42) 4-Methyl-2-pentanone	9.519	9.526	0.854		0m	N.D.	d	
44) Toluene	9.792	9.788	0.879		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	9.972	9.968	0.895		0m	N.D.	d	
46) 1,1,2-Trichloroethane	10.287	10.173	0.923		0m	N.D.	d	
47) 2-Hexanone	10.276	10.279	0.922		0m	N.D.	d	
48) 1,3-Dichloropropane	10.368	10.364	0.930		0m	N.D.	d	
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	10.764	10.771	0.966		0m	N.D.	d	
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.		
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D.	d	
55) m,p-Xylenes	11.280	11.280	1.012		0m	N.D.	d	
56) o-Xylene	11.701	11.701	1.050		0m	N.D.	d	
57) Styrene	11.715	11.715	1.051		0m	N.D.	d	
59) Bromoform	0.000	12.005	0.000		0	N.D.		
60) Isopropylbenzene	12.012	12.016	0.896		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	12.408	12.348	0.925		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	12.461	12.465	0.929		0m	N.D.	d	
65) n-Propylbenzene	12.408	12.415	0.925		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	12.561	12.564	0.936		0m	N.D.	d	
67) 2-Chlorotoluene	12.596	12.596	0.939		0m	N.D.	d	
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d	
69) tert-Butylbenzene	12.907	12.900	0.962		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d	
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d	
72) 4-Isopropyltoluene	13.232	13.229	0.987		0m	N.D.	d	
73) 1,3-Dichlorobenzene	13.356	13.349	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d	
75) n-Butylbenzene	13.653	13.653	1.018		0m	N.D.	d	
76) 1,2-Dichlorobenzene	13.858	13.858	1.033		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164		0m	N.D.	d	
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D.	d	
80) Naphthalene	15.981	15.988	1.191		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	6.082	6.082	0.725	56	209673	260.66	ug/L	99
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	420908	336.02	ug/L	100
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d	
88) Allyl chloride	6.421	6.425	0.766	41	2064299	224.51	ug/L	93
89) tert-Butyl Alcohol	6.421	6.460	0.766	59	764	N.D.		
90) Acrylonitrile	6.743	6.747	0.804	53	494368	244.54	ug/L	100
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	385462	64.96	ug/L	100
93) Ethyl tert-butyl ether	7.369	7.192	0.879	59	107	N.D.		
94) Ethyl acetate	7.380	7.383	0.880	43	1250386	228.37	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405SLS2.D
Acq On : 11 Mar 2010 8:27 am
Operator : CDS1
InstName : VOA5
Sample : |1202067631|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[B]UVM100215-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

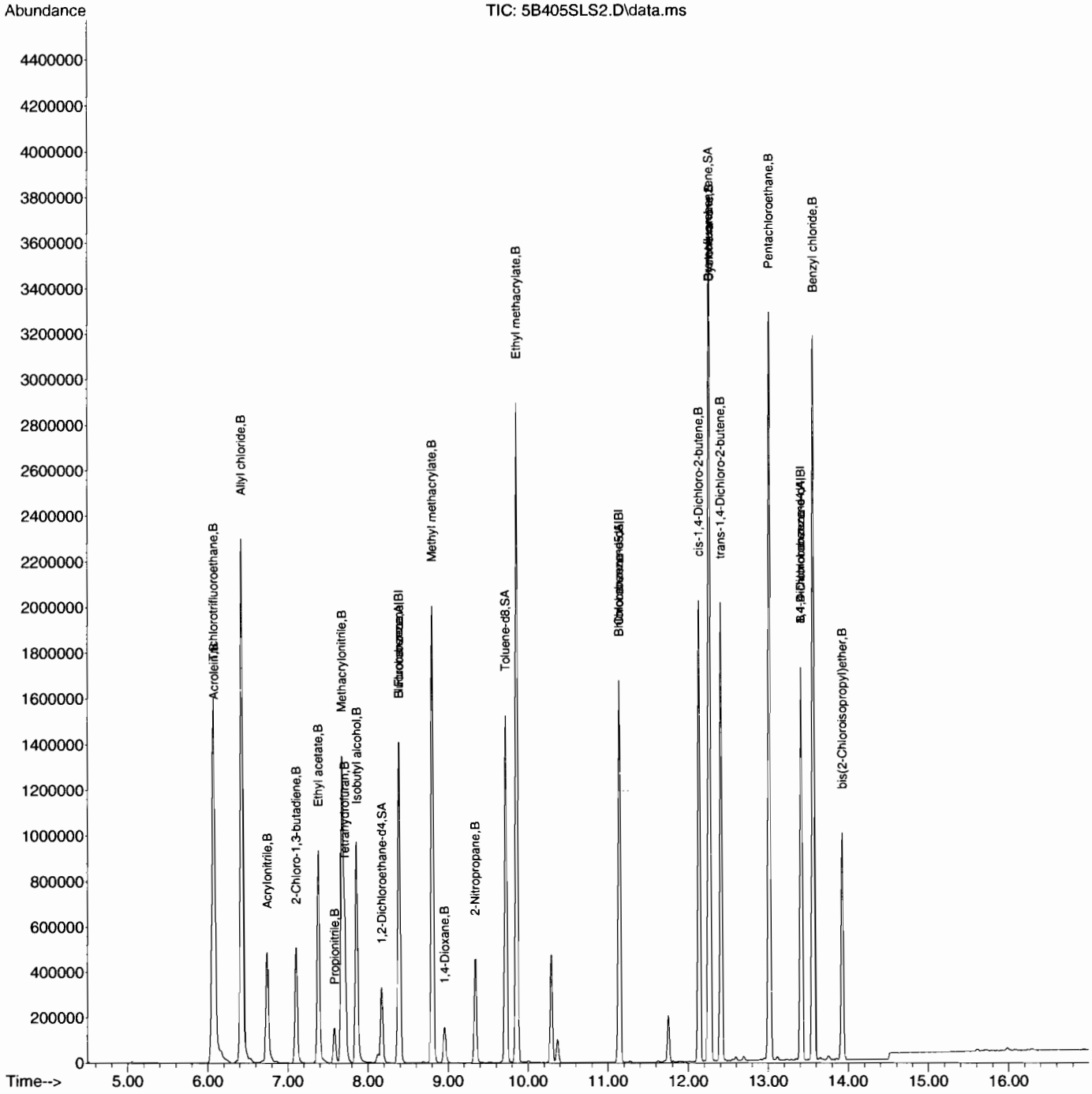
	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95)	Propionitrile	7.585	7.585	0.904	54	192800	247.77	ug/L	99	
96)	Methacrylonitrile	7.677	7.680	0.915	41	1037180	242.54	ug/L	100	
97)	Tetrahydrofuran	7.709	7.716	0.919	42	466766	241.52	ug/L	99	
98)	Isobutyl alcohol	7.861	7.857	0.937	41	483945	2377.09	ug/L	98	
99)	Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.			
100)	Methyl methacrylate	8.801	8.801	1.049	69	799913	247.91	ug/L	97	
101)	1,4-Dioxane	8.957	8.957	1.068	88	126561	2197.92	ug/L	99	
102)	2-Nitropropane	9.342	9.342	1.114	43	394732	241.26	ug/L	99	
104)	Ethyl methacrylate	9.859	9.859	0.885	69	1570077	252.20	ug/L	98	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.			
107)	cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	542526	269.96	ug/L	100	
108)	Cyclohexanone	12.267	12.267	0.915	42	802097	4855.37	ug/L	97	E
109)	trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	508969	268.86	ug/L	98	
110)	Pentachloroethane	13.013	13.017	0.970	167	771770	294.39	ug/L	99	
111)	Benzyl chloride	13.565	13.565	1.011	91	2725462	283.21	ug/L	100	
112)	bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	793167	224.01	ug/L	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B405SLS2.D
Acq On : 11 Mar 2010 8:27 am
Operator : CDS1
InstName : VOA5
Sample : |1202067631|963809|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[B]UVM100215-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

Prep Logbook

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

Batch ID: **963808** Verified by: _____

Analyst: Crystal Stacey

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202067627 MB	11-MAR-2010 06:00:00	Soil	5	5	1	
1202067630 LCS	11-MAR-2010 06:00:00	Soil	5	5	1	
1202067631 LCS	11-MAR-2010 06:00:00	Soil	5	5	1	
248517001	11-MAR-2010 10:00:00	Soil	5	5	1	
248519001	11-MAR-2010 10:01:00	Soil	5	5	1	
248519002	11-MAR-2010 10:02:00	Soil	5	5	1	
248519003	11-MAR-2010 10:03:00	Soil	5	5	1	
248519004	11-MAR-2010 10:04:00	Soil	5	5	1	
248519005	11-MAR-2010 10:05:00	Soil	5	5	1	
248519006	11-MAR-2010 10:06:00	Soil	5	5	1	
248519007	11-MAR-2010 10:07:00	Soil	5	5	1	
248519008	11-MAR-2010 10:08:00	Soil	5	5	1	
248519009	11-MAR-2010 10:09:00	Soil	5	5	1	
248519010	11-MAR-2010 10:10:00	Soil	5	5	1	
248519011	11-MAR-2010 10:11:00	Soil	5	5	1	
248519012	11-MAR-2010 10:12:00	Misc Solid	5	5	1	
248526001	11-MAR-2010 10:13:00	Soil	5	5	1	
1202067628 PS (248526001)	11-MAR-2010 10:14:00	Soil	5	5	1	
1202067629 PSD (248526001)	11-MAR-2010 10:15:00	Soil	5	5	1	
1202076531 MB	11-MAR-2010 16:00:00	Soil	5	5	1	
1202076532 LCS	11-MAR-2010 16:00:00	Soil	5	5	1	
1202076533 LCS	11-MAR-2010 16:00:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B438.D
Acq On : 11 Mar 2010 11:01 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067628|963809|1|VOA|D|VOA8260BS|
Misc : LANL 5G - SOIL MS 248526001 MIX[A]
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 12 07:26:20 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1406465	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1018044	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448747	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1406465	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1018044	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448747	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	225156	33.08	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 66.16%					
43) Toluene-d8	9.721	9.721	0.872	98	1042281	40.03	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 80.06%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	589348	65.48	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 130.96%#					
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	157628	48.00	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	207049	49.48	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	179424	51.77	ug/L	100
5) Bromomethane	5.423	5.423	0.647	94	167490	50.60	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	172215	49.00	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	283908	47.07	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	250517	48.23	ug/L	100
9) Acetone	6.170	6.174	0.736	43	500370	119.07	ug/L	99
10) 1,1-Dichloroethylene	6.156	6.156	0.734	61	308555	45.91	ug/L	100
11) Iodomethane	6.358	6.357	0.758	142	1598908	230.35	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	893284	1084.55	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1253721	272.99	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3198258	237.43	ug/L	100
15) Methylene chloride	6.534	6.538	0.779	84	252294	47.01	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	636254	45.47	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	345725	47.31	ug/L	98
18) Vinyl acetate	6.969	6.969	0.831	43	376786	32.74	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	437401	48.33	ug/L	99
20) 2-Butanone	7.450	7.450	0.888	43	749573	149.71	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	401252	47.20	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	297433	44.34	ug/L	96
23) Bromochloromethane	7.719	7.719	0.920	128	120972	48.17	ug/L	97
24) Chloroform	7.698	7.701	0.918	83	378118	46.65	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	302931	45.31	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	384041	40.38	ug/L	98
27) 1,1-Dichloropropene	8.009	8.005	0.955	75	273315	44.57	ug/L	97
28) Carbon tetrachloride	8.020	8.020	0.956	117	254949	44.45	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	327166	46.71	ug/L	99
31) Benzene	8.204	8.203	0.978	78	911621	44.78	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	392973	41.53	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	877062	4430.33	ug/L	97
34) Trichloroethylene	8.677	8.677	1.035	95	206680	42.74	ug/L	99
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	262701	45.68	ug/L	99
36) Methylcyclohexane	8.829	8.826	1.053	83	296417	33.55	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	139550	47.75	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B438.D
Acq On : 11 Mar 2010 11:01 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067628|963809|1|VOA|D|VOA8260BS|
Misc : LANL 5G - SOIL MS 248526001 MIX[A]
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 12 07:26:20 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	9.109	9.112	1.086	83	283288	47.42	ug/L		99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	325119	176.96	ug/L		99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	367485	44.93	ug/L		97
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	545547	224.09	ug/L		96
44) Toluene	9.788	9.788	0.878	91	913917	41.81	ug/L		100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	336983	45.27	ug/L		98
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	164303	44.55	ug/L		98
47) 2-Hexanone	10.279	10.279	0.923	43	1016866	153.82	ug/L		98
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	355729	44.89	ug/L		97
49) Tetrachloroethylene	10.290	10.290	0.924	164	152884	38.19	ug/L		99
50) Dibromochloromethane	10.584	10.583	0.950	129	198389	45.22	ug/L		100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	187435	43.86	ug/L		100
52) Chlorobenzene	11.174	11.174	1.003	112	568804	40.12	ug/L		99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	202008	42.06	ug/L		99
54) Ethylbenzene	11.178	11.181	1.003	91	935189	37.50	ug/L		99
55) m,p-Xylenes	11.280	11.280	1.012	106	729535	77.23	ug/L		100
56) o-Xylene	11.701	11.701	1.050	106	360405	37.76	ug/L		98
57) Styrene	11.715	11.715	1.051	104	578681	39.69	ug/L		93
59) Bromoform	12.002	12.005	0.895	173	122627	50.19	ug/L		99
60) Isopropylbenzene	12.012	12.016	0.896	105	853682	41.46	ug/L		100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	236447	44.37	ug/L		100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	68142	47.89	ug/L		93
64) Bromobenzene	12.461	12.465	0.929	156	209869	40.52	ug/L		96
65) n-Propylbenzene	12.415	12.415	0.926	91	958746	38.57	ug/L		99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	668360	38.01	ug/L		100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	204039	39.53	ug/L	#	79
68) 4-Chlorotoluene	12.695	12.698	0.946	91	611914	38.72	ug/L		99
69) tert-Butylbenzene	12.900	12.900	0.962	134	143478	35.44	ug/L		99
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	680147	38.02	ug/L		98
71) sec-Butylbenzene	13.116	13.119	0.978	105	787031	34.59	ug/L		99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	611370	33.80	ug/L		99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	344948	35.07	ug/L		99
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	345949	34.60	ug/L		99
75) n-Butylbenzene	13.653	13.653	1.018	91	530408	29.87	ug/L		99
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	324178	34.29	ug/L		100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	37852	37.31	ug/L		94
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	138185	21.70	ug/L		99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	66663	17.24	ug/L		99
80) Naphthalene	15.988	15.988	1.192	128	380636	26.32	ug/L		99
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	112005	20.16	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.			
85) Acrolein	0.000	6.082	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.			
87) Isopropyl Alcohol	6.167	6.163	0.735		0m	N.D.	d		
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d		
89) tert-Butyl Alcohol	6.464	6.460	0.771		0m	N.D.	d		
90) Acrylonitrile	6.633	6.747	0.791		0m	N.D.	d		
91) Isopropyl ether	6.916	6.920	0.825		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.			
93) Ethyl tert-butyl ether	7.061	7.192	0.842		0m	N.D.	d		
94) Ethyl acetate	7.334	7.383	0.874		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B438.D
Acq On : 11 Mar 2010 11:01 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067628|963809|1|VOA|D|VOA8260BS|
Misc : LANL 5G - SOIL MS 248526001 MIX[A]
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 12 07:26:20 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

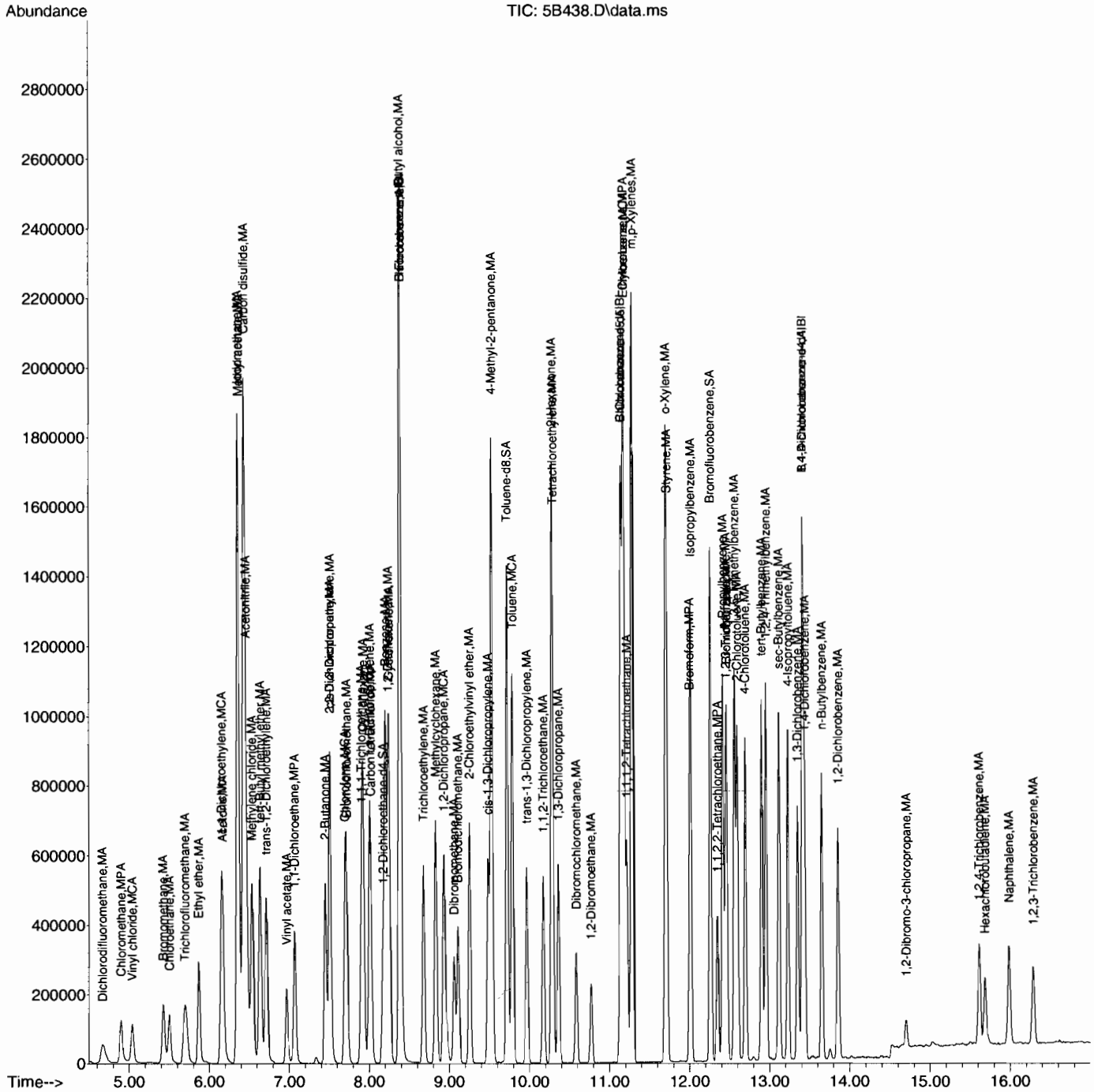
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.447	7.585	0.888		0m	N.D.	d
96) Methacrylonitrile	7.510	7.680	0.895		0m	N.D.	d
97) Tetrahydrofuran	7.705	7.716	0.919		0m	N.D.	d
98) Isobutyl alcohol	7.864	7.857	0.938		0m	N.D.	d
99) Methyl tert-amyl ether	8.119	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	9.321	9.342	1.111		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	11.047	10.980	0.824		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.408	12.267	0.925		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.017	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.565	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.932	13.929	1.039		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B438.D
Acq On : 11 Mar 2010 11:01 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067628|963809|1|VOA|D|VOA8260BS|
Misc : LANL 5G - SOIL MS 248526001 MIX[A]
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 12 07:26:20 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B439.D
Acq On : 11 Mar 2010 11:28 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 12 07:26:22 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1397470	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1014836	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448622	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1397470	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1014836	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448622	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	225275	33.31	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 66.62%					
43) Toluene-d8	9.721	9.721	0.872	98	1051412	40.51	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 81.02%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	587938	65.34	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 130.68%#					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.678	4.668	0.558	85	151974	46.58	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	204728	49.24	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	173849	50.48	ug/L	98
5) Bromomethane	5.433	5.423	0.648	94	162572	49.43	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	165072	47.27	ug/L	100
7) Trichlorofluoromethane	5.705	5.695	0.680	101	277515	46.30	ug/L	99
8) Ethyl ether	5.866	5.866	0.699	59	242372	46.96	ug/L	99
9) Acetone	6.170	6.174	0.736	43	457627	109.60	ug/L	99
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	303148	45.40	ug/L	99
11) Iodomethane	6.361	6.357	0.758	142	1574147	228.24	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	836131	1021.70	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1196120	262.13	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3118813	233.02	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	245546	46.03	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	614459	44.19	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	335170	46.16	ug/L	98
18) Vinyl acetate	6.969	6.969	0.831	43	330052	28.87	ug/L	97
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	433530	48.21	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	689581	138.61	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	392369	46.46	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	292525	43.89	ug/L	96
23) Bromochloromethane	7.723	7.719	0.921	128	117505	47.09	ug/L	97
24) Chloroform	7.701	7.701	0.918	83	372806	46.29	ug/L	99
25) 1,1,1-Trichloroethane	7.906	7.906	0.943	97	298297	44.90	ug/L	99
26) Cyclohexane	7.928	7.924	0.945	56	379143	40.12	ug/L	98
27) 1,1-Dichloropropene	8.005	8.005	0.954	75	268816	44.12	ug/L	97
28) Carbon tetrachloride	8.020	8.020	0.956	117	250001	43.87	ug/L	98
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	322667	46.36	ug/L	99
31) Benzene	8.200	8.203	0.978	78	889984	43.99	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	384983	40.95	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	818631	4159.24	ug/L	99
34) Trichloroethylene	8.677	8.677	1.035	95	204201	42.50	ug/L	99
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	259393	45.39	ug/L	100
36) Methylcyclohexane	8.829	8.826	1.053	83	292313	33.30	ug/L	98
37) Dibromomethane	9.059	9.059	1.080	93	135100	46.52	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B439.D
Acq On : 11 Mar 2010 11:28 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 12 07:26:22 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	9.109	9.112	1.086	83	278404	46.90	ug/L		99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	309964	169.79	ug/L		99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	361985	44.54	ug/L		98
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	508608	209.58	ug/L		97
44) Toluene	9.788	9.788	0.878	91	899930	41.30	ug/L		100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	330525	44.54	ug/L		99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	158695	43.16	ug/L		98
47) 2-Hexanone	10.279	10.279	0.923	43	929644	141.07	ug/L		98
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	348716	44.14	ug/L		98
49) Tetrachloroethylene	10.290	10.290	0.924	164	152953	38.33	ug/L		100
50) Dibromochloromethane	10.583	10.583	0.950	129	195099	44.61	ug/L		100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	183163	43.00	ug/L		100
52) Chlorobenzene	11.171	11.174	1.003	112	563323	39.86	ug/L		99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	202110	42.22	ug/L		99
54) Ethylbenzene	11.178	11.181	1.003	91	932341	37.51	ug/L		99
55) m,p-Xylenes	11.280	11.280	1.012	106	732194	77.76	ug/L		99
56) o-Xylene	11.701	11.701	1.050	106	364277	38.29	ug/L		100
57) Styrene	11.715	11.715	1.051	104	573639	39.47	ug/L		92
59) Bromoform	12.005	12.005	0.895	173	117778	48.22	ug/L		100
60) Isopropylbenzene	12.012	12.016	0.896	105	853475	41.46	ug/L		98
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	229384	43.05	ug/L		99
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	64672	45.46	ug/L		98
64) Bromobenzene	12.465	12.465	0.929	156	213842	41.30	ug/L		99
65) n-Propylbenzene	12.415	12.415	0.926	91	962225	38.72	ug/L		99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	674874	38.39	ug/L		100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	209421	40.58	ug/L	#	83
68) 4-Chlorotoluene	12.698	12.698	0.947	91	619238	39.19	ug/L		99
69) tert-Butylbenzene	12.900	12.900	0.962	134	143864	35.55	ug/L		99
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	677980	37.91	ug/L		99
71) sec-Butylbenzene	13.116	13.119	0.978	105	787488	34.62	ug/L		99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	620588	34.32	ug/L		99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	344380	35.03	ug/L		99
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	353645	35.38	ug/L		99
75) n-Butylbenzene	13.653	13.653	1.018	91	533389	30.04	ug/L		99
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	325191	34.41	ug/L		99
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	36300	35.79	ug/L		97
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	140070	22.01	ug/L		99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	68673	17.76	ug/L		96
80) Naphthalene	15.988	15.988	1.192	128	376750	26.06	ug/L		99
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	112697	20.29	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.			
85) Acrolein	0.000	6.082	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.			
87) Isopropyl Alcohol	6.170	6.163	0.736		0m	N.D.	d		
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d		
89) tert-Butyl Alcohol	6.467	6.460	0.771		0m	N.D.	d		
90) Acrylonitrile	6.633	6.747	0.791		0m	N.D.	d		
91) Isopropyl ether	6.920	6.920	0.825		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.			
93) Ethyl tert-butyl ether	7.068	7.192	0.843		0m	N.D.	d		
94) Ethyl acetate	7.383	7.383	0.880		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B439.D
Acq On : 11 Mar 2010 11:28 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 12 07:26:22 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

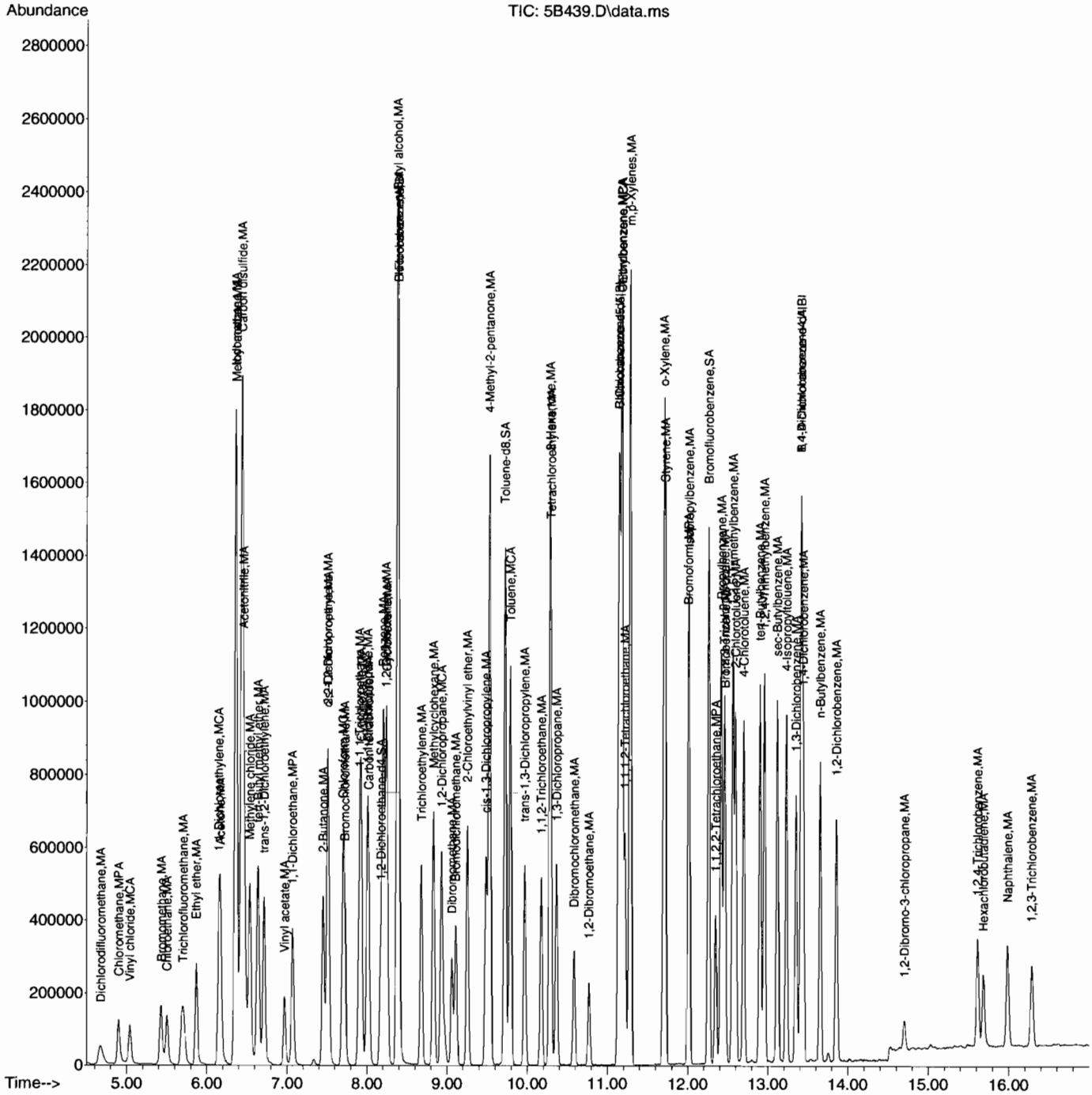
	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	7.454	7.585	0.889		0m	N.D.	d
96)	Methacrylonitrile	7.602	7.680	0.906		0m	N.D.	d
97)	Tetrahydrofuran	7.705	7.716	0.919		0m	N.D.	d
98)	Isobutyl alcohol	7.680	7.857	0.916		0m	N.D.	d
99)	Methyl tert-amyl ether	8.122	8.122	0.968		0m	N.D.	d
100)	Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101)	1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102)	2-Nitropropane	9.356	9.342	1.116		0m	N.D.	d
104)	Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	12.016	12.136	0.896		0m	N.D.	d
108)	Cyclohexanone	12.415	12.267	0.926		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.412	12.412	0.925		0m	N.D.	d
110)	Pentachloroethane	13.024	13.017	0.971		0m	N.D.	d
111)	Benzyl chloride	13.568	13.565	1.012		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	13.929	13.929	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B439.D
Acq On : 11 Mar 2010 11:28 pm
Operator : CDS1
InstName : VOA5
Sample : |1202067629|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248526001 MIX[A]
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 12 07:26:22 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B437.D
Acq On : 11 Mar 2010 10:35 pm
Operator : CDS1
InstName : VOA5
Sample : |248526001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 17 15:24:13 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.391	8.387	1.000	96	1421542	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1051754	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	496058	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1421542	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1051754	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	496058	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	230487	33.50	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 67.00%					
43) Toluene-d8	9.721	9.721	0.872	98	1055557	39.24	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 78.48%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	613506	61.66	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 123.32%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.960	4.900	0.591	50	377	Below Cal		83
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	353	N.D.		
9) Acetone	6.184	6.174	0.737	43	2100	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.467	6.464	0.771	41	1063	N.D.		
13) Methyl acetate	6.184	6.365	0.737	43	2100	N.D.		
14) Carbon disulfide	6.439	6.435	0.767	76	453	N.D.		
15) Methylene chloride	6.542	6.538	0.780	84	5368	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.807	6.969	0.811	43	3408	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.461	7.450	0.889	43	122	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978	78	238	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	8.384	8.377	0.999	56	7987	Below Cal	#	19
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B437.D
Acq On : 11 Mar 2010 10:35 pm
Operator : CDS1
InstName : VOA5
Sample : |248526001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 17 15:24:13 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.		
44) Toluene	9.791	9.788	0.879	91	5065	N.D.		
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.		
47) 2-Hexanone	10.294	10.279	0.924	43	109	N.D.		
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.		
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.		
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.		
54) Ethylbenzene	11.146	11.181	1.000	91	4642	N.D.		
55) m,p-Xylenes	11.280	11.280	1.012	106	910	N.D.		
56) o-Xylene	11.708	11.701	1.051	106	109	N.D.		
57) Styrene	0.000	11.715	0.000		0	N.D.		
59) Bromoform	0.000	12.005	0.000		0	N.D.		
60) Isopropylbenzene	12.246	12.016	0.913	105	112	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	0.000	12.465	0.000		0	N.D.		
65) n-Propylbenzene	12.415	12.415	0.926	91	562	N.D.		
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937	105	1029	N.D.		
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.		
68) 4-Chlorotoluene	12.702	12.698	0.947	91	404	N.D.		
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	3139	N.D.		
71) sec-Butylbenzene	13.112	13.119	0.978	105	637	N.D.		
72) 4-Isopropyltoluene	13.232	13.229	0.987	119	1950	N.D.		
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.		
75) n-Butylbenzene	13.653	13.653	1.018	91	1469	N.D.		
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	244	N.D.		
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.		
80) Naphthalene	15.989	15.988	1.192	128	6039	0.38	ug/L	70
81) 1,2,3-Trichlorobenzene	16.298	16.291	1.215	180	244	N.D.		
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.		
88) Allyl chloride	6.450	6.425	0.769	41	163	N.D.		
89) tert-Butyl Alcohol	6.464	6.460	0.770	59	142	N.D.		
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.		
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.		
94) Ethyl acetate	7.461	7.383	0.889	43	122	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B437.D
Acq On : 11 Mar 2010 10:35 pm
Operator : CDS1
InstName : VOA5
Sample : |248526001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 17 15:24:13 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

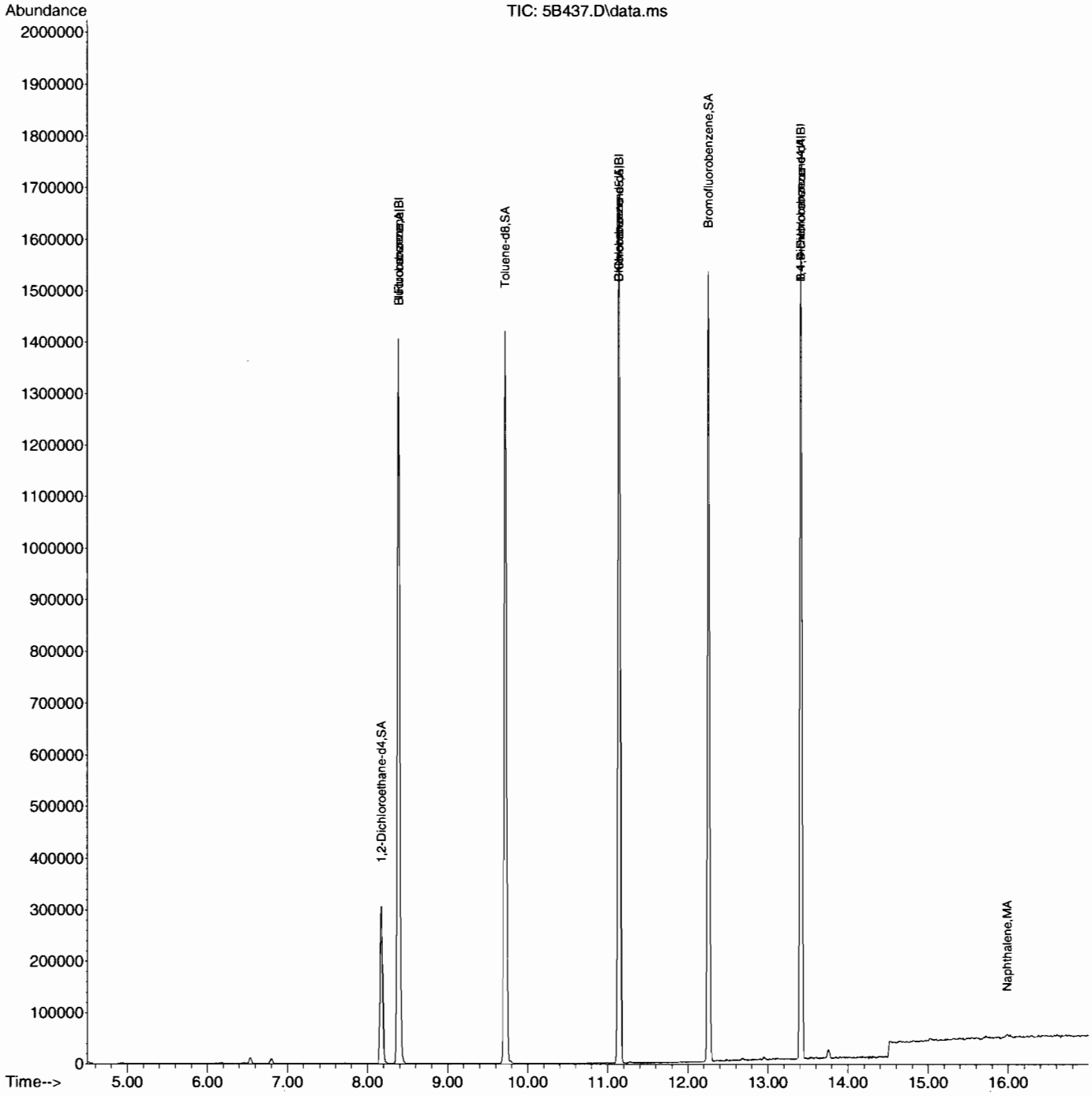
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.698	7.680	0.917	41	266	N.D.	
97) Tetrahydrofuran	7.719	7.716	0.920	42	1200	N.D.	
98) Isobutyl alcohol	7.733	7.857	0.922	41	107	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.551	13.565	1.010	91	1141	N.D.	
112) bis(2-Chloroisopropyl)...	13.936	13.929	1.039	45	119	N.D.	

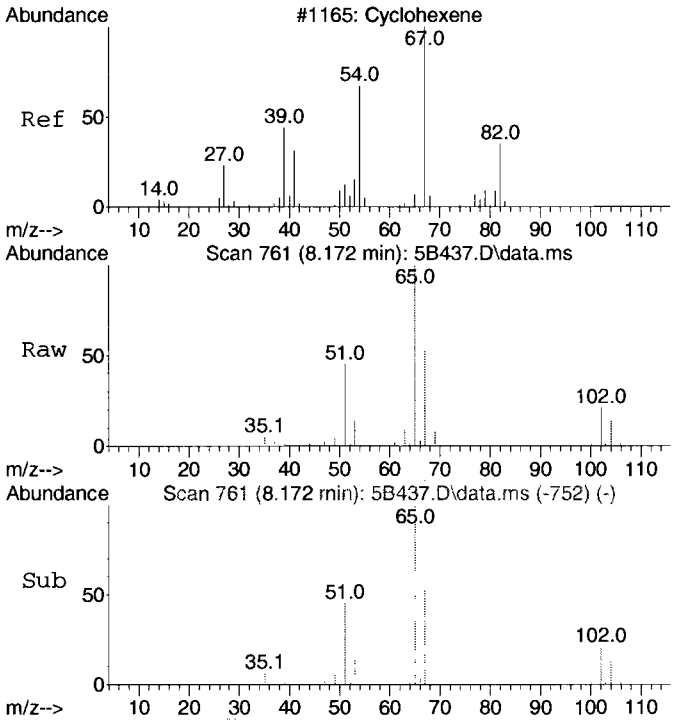
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B437.D
Acq On : 11 Mar 2010 10:35 pm
Operator : CDS1
InstName : VOA5
Sample : |248526001|963809|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 17 15:24:13 2010
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 09 07:08:19 2010
Response via : Initial Calibration
Integrator: RTE

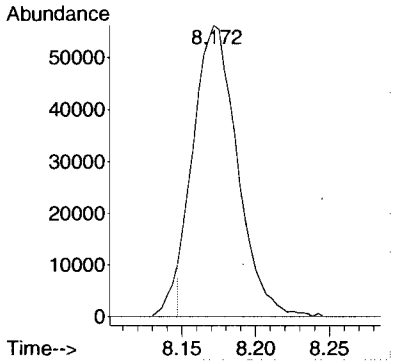


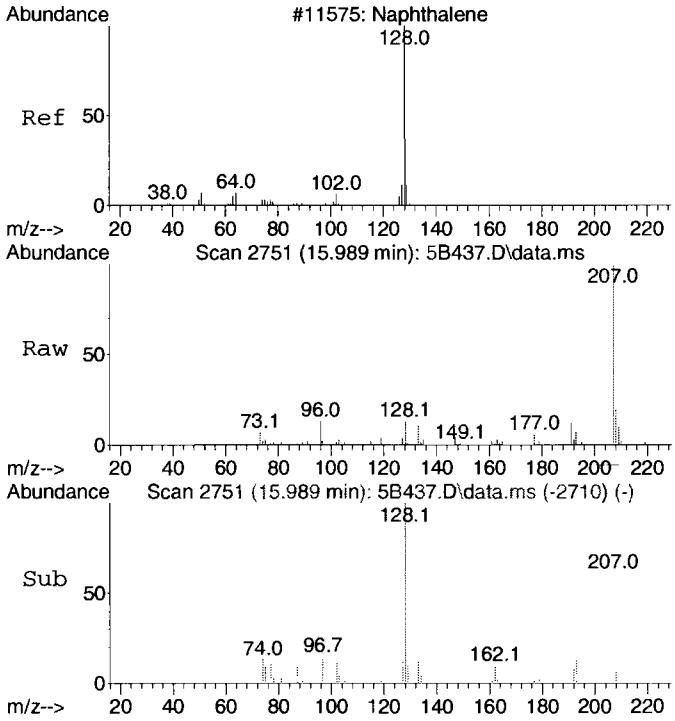


#32 BEFORE analyst DELETION
Cyclohexene
Concen: 12.13 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5B437.D
Acq: 11 Mar 2010 10:35 pm

Tgt Ion: 67 Resp: 115964

Ion	Ratio	Lower	Upper
67	100		
54	0.0	46.3	106.3#

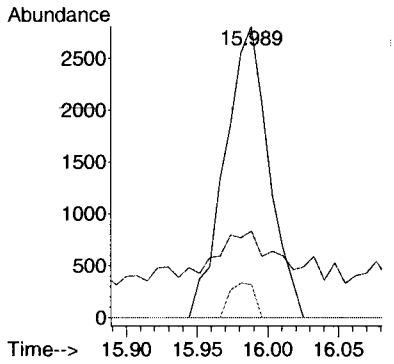


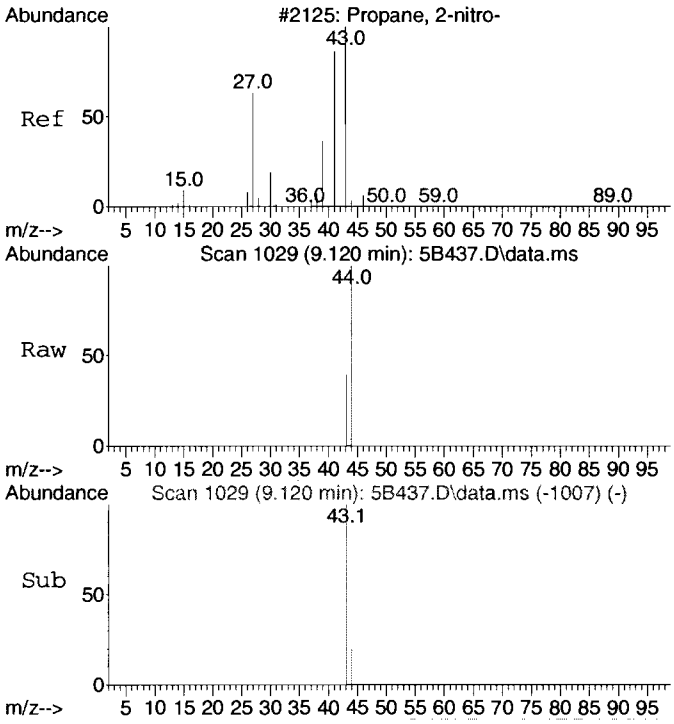


#80
Naphthalene
Concen: 0.38 ug/L
RT: 15.989 min Scan# 2751
Delta R.T. 0.001 min
Lab File: 5B437.D
Acq: 11 Mar 2010 10:35 pm

Tgt Ion:128 Resp: 6039

Ion	Ratio	Lower	Upper
128	100		
127	30.5	0.0	42.4
129	6.7	0.0	40.8

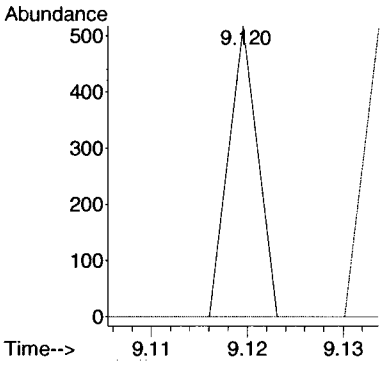




#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 6.96 ug/L
RT: 9.120 min Scan# 1029
Delta R.T. -0.222 min
Lab File: 5B437.D
Acq: 11 Mar 2010 10:35 pm

Tgt Ion: 43 Resp: 110

Ion	Ratio	Lower	Upper
43	100		
41	99.1	52.5	112.5



GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 3/3/2010 Method 8260/624 Operator: cds1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1412

CALIBRATION & CC INFORMATION:

Initial Calibration Date: _____

(See pg. _____ for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # n/a

Sequence Number: 03310V5

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100203-01	1	1	1	
SS	UVM100203-02	1	1	1	
Long ICV	W5VM100303-10			5+5	
BFB	UVM100203-02				1
Short ICV	W5VM100303-18			5+5	

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

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3 Mar 2010	11:00	5A301.D	UVM100203-02	BLANK	BFB		1	N/A	1	w	CDS1	N/A	O	
3 Mar 2010	11:26	5A302.D	120206-----	BLANK	BLANK	5ML	1	N/A	2	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	11:52	5A303.D	W5VM100303-01	VSTD001L	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM100106-02D+UVM100222-02A
3 Mar 2010	12:18	5A304.D	W5VM100303-02	VSTD002L	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM100106-03D+UVM100222-03A
3 Mar 2010	12:43	5A305.D	W5VM100303-03	VSTD005L	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM100106-04D+UVM100222-04A
3 Mar 2010	13:09	5A306.D	W5VM100303-04	VSTD010L	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM100106-05D+UVM100222-05A
3 Mar 2010	13:35	5A307.D	W5VM100303-05	VSTD020L	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM100106-06D+UVM100222-06A
3 Mar 2010	14:01	5A308.D	W5VM100303-06	VSTD050L	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	O	UVM100106-07D+UVM100222-07A
3 Mar 2010	14:26	5A309.D	W5VM100303-07	VSTD100L	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	UVM100106-08D+UVM100222-08A
3 Mar 2010	14:52	5A310.D	120206-----	BLANK	BLANK	5mL	1	N/A	10	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	15:18	5A311.D	W5VM100303-08	VSTD0005L	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM100106-01D+UVM100222-01A
3 Mar 2010	15:44	5A312.D	W5VM100303-09	ICV	LCS	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM100126-02E+IVM100301-01 ketones low
3 Mar 2010	16:10	5A313.D	W5VM100303-10	ICV	LCS	5uL ea.	1	N/A	13	w	CDS1	N/A	O	UVM100220-01C+IVM100301-01
3 Mar 2010	16:35	5A314.D	120206-----	BLANK	BLANK	5ML	1	N/A	14	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	17:01	5A315.D	W5VM100303-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM100215-01+UVM100227-01A
3 Mar 2010	17:27	5A316.D	W5VM100303-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM100215-02+UVM100227-02A
3 Mar 2010	17:52	5A317.D	W5VM100303-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM100215-03+UVM100227-03A
3 Mar 2010	18:18	5A318.D	W5VM100303-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM100215-04+UVM100227-04A
3 Mar 2010	18:44	5A319.D	W5VM100303-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM100215-05+UVM100227-05A
3 Mar 2010	19:10	5A320.D	W5VM100303-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM100215-06+UVM100227-06A
3 Mar 2010	19:35	5A321.D	W5VM100303-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	w	CDS1	N/A	O	UVM100215-07+UVM100227-07A
3 Mar 2010	20:01	5A322.D	120206-----	BLANK	BLANK	5mL	1	N/A	22	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	20:27	5A323.D	W5VM100303-18	ICV	ICV	5uL ea.	1	N/A	23	w	CDS1	N/A	O	UVM100215-08A+UVM100125-08E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 3/11/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1412

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/3/2010

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

NaHSO4 lot # n/a

Cl test lot # n/a

Sequence Number: 031110V5

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W5VM100311-01		5+5		
IS	UVM100203-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W5VM100311-02/03			5+5	
BFB	UVM100217-02				1
SHORT	W5VM100311-04		5	5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/11/2010	6:41	5B401.D	UVM100217-02	--------	BFB	5ML	1	N/A	1	w	CDS1	N/A	O	
3/11/2010	7:08	5B402.D	W5VM100311-01	--------	CCV	5ML	1	N/A	2	w	CDS1	N/A	O	UVM100222-07B+UVM100106-07D
3/11/2010	7:34	5B403.D	W5VM100311-02	--------	LCS	5ML	1	N/A	3	w	CDS1	N/A	O	UVM100305-01A+IVM100310-01
3/11/2010	8:01	5B404.D	W5VM100311-03	--------	LCS	5g	1	N/A	4	s	CDS1	N/A	O	UVM100305-01A+IVM100310-01
3/11/2010	8:27	5B405.D	W5VM100311-04	--------	CCV/lcs	5g	1	N/A	5	s	CDS1	N/A	O	UVM100215-08B
3/11/2010	8:54	5B406.D	120206------	--------	BLANK	5ML	1	N/A	6	w	CDS1	N/A	O	
3/11/2010	9:20	5B407.D	120206------	--------	BLANK	5G	1	N/A	7	s	CDS1	N/A	O	
3/11/2010	9:47	5B408.D	248249001	LANL	962697	5G	1	N/A	8	s	CDS1	N/A	X	IS low, SS high--conf. of 5B334
3/11/2010	10:13	5B409.D	248249002	LANL	962697	5G	1	N/A	9	s	CDS1	N/A	O	SS high=--conf. by 5B535
3/11/2010	10:40	5B410.D	248249003	LANL	962697	5G	1	N/A	10	s	CDS1	N/A	O	IS low, SS high--conf. by 5B336
3/11/2010	11:07	5B411.D	248249004	LANL	962697	5G	1	N/A	11	s	CDS1	N/A	O	
3/11/2010	11:33	5B412.D	248370014	LANL	963122	5G	1	N/A	12	s	CDS1	N/A	X	SS high--conf. of 5B313
3/11/2010	11:59	5B413.D	248370016	LANL	963122	5G	1	N/A	13	s	CDS1	N/A	O	H'
3/11/2010	12:26	5B414.D	248370017	LANL	963122	5G	1	N/A	14	s	CDS1	N/A	X	SS high--conf. of 5B316
3/11/2010	12:53	5B415.D	248370018	LANL	963122	5G	1	N/A	15	s	CDS1	N/A	X	SS high--conf. of 5B317
3/11/2010	13:19	5B416.D	248370020	LANL	963122	5G	1	N/A	16	s	CDS1	N/A	X	IS low, SS high--conf. of 5B319
3/11/2010	13:45	5B417.D	248517001	LANL	963809	5G	1	N/A	17	s	CDS1	N/A	O	IS low, SS high--conf. by 3D417
3/11/2010	14:12	5B418.D	248519001	LANL	963809	5G	1	N/A	18	s	CDS1	N/A	O	IS low, SS high--conf. by 5B514
3/11/2010	14:39	5B419.D	248519002	LANL	963809	5G	1	N/A	19	s	CDS1	N/A	O	SS high--conf. by 5B515
3/11/2010	15:05	5B420.D	248519003	LANL	963809	5G	1	N/A	20	s	CDS1	N/A	O	IS low, SS high--conf. by 5B516
3/11/2010	15:32	5B421.D	248519004	LANL	963809	5G	1	N/A	21	s	CDS1	N/A	O	IS low, SS high--conf. by 5B517
3/11/2010	15:58	5B422.D	248519005	LANL	963809	5G	1	N/A	22	s	CDS1	N/A	O	SS high--conf. by 5B518
3/11/2010	16:25	5B423.D	248519006	LANL	963809	5G	1	N/A	23	s	CDS1	N/A	O	SS high--conf. by 5B526
3/11/2010	16:51	5B424.D	248519007	LANL	963809	5G	1	N/A	24	s	CDS1	N/A	O	IS low, SS high--conf. by 5B527
3/11/2010	17:18	5B425.D	248519008	LANL	963809	5G	1	N/A	25	s	CDS1	N/A	O	IS low, SS high--conf. by 5B528
3/11/2010	17:44	5B426.D	248519009	LANL	963809	5G	1	N/A	26	s	CDS1	N/A	O	IS low, SS high--conf. by 5B529

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 3/11/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1412

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/3/2010

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

NaHSO4 lot # n/a

Cl test lot # n/a

Sequence Number: 031110V5pm

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W5VM100311-05		5+5		
IS	UVM100203-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W5VM100311-06/07			5+5	
BFB	UVM100217-02				1
SHORT	W5VM100311-08		5	5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/11/2010	18:10	5B427.D	UVM100217-02	--------	BFB2	5ML	1	N/A	27	w	CDS1	N/A	O	
3/11/2010	18:37	5B428.D	W5VM100311-05	--------	CCV	5ML	1	N/A	28	w	CDS1	N/A	O	UVM100222-07B+UVM100106-07D
3/11/2010	19:03	5B429.D	W5VM100311-06	--------	LCS	5ML	1	N/A	29	w	CDS1	N/A	O	UVM100305-01A+IVM100310-01
3/11/2010	19:30	5B430.D	W5VM100311-07	--------	LCS	5G	1	N/A	30	s	CDS1	N/A	O	UVM100305-01A+IVM100310-01
3/11/2010	19:56	5B431.D	W5VM100311-08	--------	CCV/lcs	5G	1	N/A	31	s	CDS1	N/A	O	UVM100215-08B
3/11/2010	20:23	5B432.D	120206------	--------	BLANK	5ML	1	N/A	32	w	CDS1	N/A	O	
3/11/2010	20:49	5B433.D	120206------	--------	BLANK	5G	1	N/A	33	s	CDS1	N/A	O	
3/11/2010	21:15	5B434.D	248519010	LANL	963809	5G	1	N/A	34	s	CDS1	N/A	O	SS high--conf. by 5B530
3/11/2010	21:42	5B435.D	248519011	LANL	963809	5G	1	N/A	35	s	CDS1	N/A	O	IS low, SS high--conf. by 5B531
3/11/2010	22:08	5B436.D	248519012	LANL	963809	5G	1	N/A	36	s	CDS1	N/A	O	
3/11/2010	22:35	5B437.D	248526001	LANL	963809	5G	1	N/A	37	s	CDS1	N/A	O	
3/11/2010	23:01	5B438.D	1202067628	LANL	963809	5G	1	N/A	38	s	CDS1	N/A	O	MS 248526001 SS high conf. in MSD
3/11/2010	23:28	5B439.D	1202067629	LANL	963809	5G	1	N/A	39	s	CDS1	N/A	O	MSD 248526001 SS high conf. in MS
3/11/2010	23:54	5B440.D	1202068375	LANL	964134	5G	1	N/A	40	s	CDS1	N/A	O	MS 248394001
3/12/2010	0:20	5B441.D	1202068376	LANL	964134	5G	1	N/A	41	s	CDS1	N/A	O	MSD 248394001
3/12/2010	0:46	5B442.D	120206------	--------	BLANK	5ML	1	N/A	42	w	CDS1	N/A	X	clean-up blank
3/12/2010	1:13	5B443.D	248394001	LANL	964134	5G	1	N/A	43	s	CDS1	N/A	X	SS high--see 5B508
3/12/2010	1:39	5B444.D	248394002	LANL	964134	5G	1	N/A	44	s	CDS1	N/A	X	SS high--see 5B509
3/12/2010	2:05	5B445.D	248394003	LANL	964134	5G	1	N/A	45	s	CDS1	N/A	X	SS high--see 5B510
3/12/2010	2:32	5B446.D	248394004	LANL	964134	5G	1	N/A	46	s	CDS1	N/A	X	SS high--see 5B511
3/12/2010	2:58	5B447.D	248394005	LANL	964134	5G	1	N/A	47	s	CDS1	N/A	X	SS high--see 5B512
3/12/2010	3:24	5B448.D	248394006	LANL	964134	5G	1	N/A	48	s	CDS1	N/A	X	SS high--see 5B513

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-MAR-10	Federal	SOP	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	8260	Solid	LANL010
Batch ID:	**Sample Numbers:**		
963809	See Below		

Potentially affected work order(s)(SDG): 248517(10-2198),248519(10-2199),248526(10-2202)

Application Issues:

Failed Recovery for Surrogate or Tracer

Other

Specification and Requirements Exception Description:	DER Disposition:
1. The recovery for one or more surrogates was outside of acceptance limits in the following samples: 248519001-011, 248517001, 248526001MS, 248526001MSD 2. The recovery for one or more internal standards was outside of acceptance limits in the following samples: 248519001, 248519003, 248519004, 248519007, 248519008, 248519009, 248519011, 248517001	1,2. All samples were re-analyzed with similar recoveries for internal standards and/or surrogates. It is believed that matrix interference was demonstrated. The data were reported.

Originator's Name:

Crystal Stacey 20-MAR-10

Data Validator/Group Leader:

Kelle Bellamy 22-MAR-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	963133
Prep Batch Number:	963130

Sample Analysis

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

Sample ID	Client ID
248517001	RE36-10-8292
1202066181	Method Blank (MB)
1202066182	Laboratory Control Sample (LCS)
1202066183	248526001(RE36-10-8466) Matrix Spike (MS)
1202066184	248526001(RE36-10-8466) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

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

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

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

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

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

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

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS(1202066182) recovered 2,4-Dimethylphenol at 26% (limits are 32%-112%) and Benzyl alcohol at 26% (limits are 27%-108%). The LCS failures represent less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is stated in the Method as displaying erratic chromatographic behavior. This may account for the low recoveries of the analytes in the LCS (as well as in the MS and MSD).

QC Sample Designation
The non-SDG sample 248526001 (RE36-10-8466) was selected for analysis as the matrix spike/matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS(1202066183) and MSD(1202066184) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures. Since the MSD displayed similar recoveries to the MS, the failures were attributed to matrix interference and the data were reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method and is subject to erratic chromatography behavior. This may account for the low recoveries of the analytes in the MS and MSD (as well as in the LCS).

Matrix Spike Duplicate (MSD) Recovery Statement
The MS(1202066183) and MSD(1202066184) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures. Since the MSD displayed similar recoveries to the MS, the failures were attributed to matrix interference and the data were reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method and is subject to erratic chromatography behavior. This may account for the low recoveries of the analytes in the MS and MSD (as well as in the LCS).

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were not within the acceptance limits. The failures were attributed to sample matrix interference.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 809972. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

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

System Configuration
The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beecham **Date:** 3-30-10

Roadmap for LANL 10-2198 SVOA

This roadmap was analyzed by llo00884 on 03-25-2010, 20:02.
This roadmap was reviewed by bar00895 on 03-29-2010, 08:33.
This roadmap was packaged by CHA01131 on 03-29-2010, 15:09.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s032110.b/s6c2113.d	248517001	21-MAR-2010	20:12	10-2198.sub	RE36-10-8292	1	963133	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s032110.b/s6c2109-1.d	1202066182	lcs	21-MAR-2010	18:37	10-2198.sub	SBLK01LCS	1	963133	<5% fail
☐	Y	/chem/MSD6.i/s032110.b/s6c2108-1.d	1202066181	mb	21-MAR-2010	18:13	10-2198.sub	SBLK01	1.00000	963133	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.l**	**Dilution:**	**1**
Run Date:	**03/21/2010 20:12**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2113.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.5	427
108-95-2	Phenol	U	427	ug/kg	85.5	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.5	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.5	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.5	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.5	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	J	14.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.5	427
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.5	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.5	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.5	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.5	427
95-48-7	o-Cresol	U	427	ug/kg	85.5	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.5	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.5	427
78-59-1	Isophorone	U	427	ug/kg	85.5	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.5	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	150	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.5	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.5	427
65-85-0	Benzoic acid	J	229	ug/kg	214	855
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7
106-47-8	4-Chloroaniline	U	427	ug/kg	85.5	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.5	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.55	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.5	427
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.5	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.5	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline	U	427	ug/kg	85.5	427
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	427	ug/kg	85.5	427

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 20:12**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2113.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	427	ug/kg	85.5	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855
132-64-9	Dibenzofuran	U	427	ug/kg	85.5	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.5	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.5	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.5	427
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	p-Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.5	427
122-66-7	Azobenzene	U	427	ug/kg	85.5	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.5	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.5	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.55	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.5	427
206-44-0	Fluoranthene	J	16.9	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.5	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	427	ug/kg	85.5	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.5	427
205-99-2	Benzo(b)fluoranthene	J	14.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.5	427

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.69	477	ug/kg		J
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	7.74	534	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 20:12**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2113.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1000130-90-5	2-Methyl-Z,Z-3,13-octadecadienol	8.12	357	ug/kg	89	NJ
	Unknown	8.32	205	ug/kg		J
	Unknown	8.86	394	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	8.94	214	ug/kg	98	NJ
	Unknown	9.02	247	ug/kg		J
	Unknown	9.12	248	ug/kg		J
	Unknown	9.22	424	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.29	571	ug/kg	93	NJ
	Unknown	9.43	259	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	9.59	211	ug/kg	86	NJ
1000303-05-9	Pyridine, 4-[5-(2-methoxyphenyl)-[1,3,4]	9.71	263	ug/kg	90	NJ
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	9.85	2190	ug/kg	90	NJ
3386-33-2	Octadecane, 1-chloro-	9.91	320	ug/kg	95	NJ
	Unknown	10.15	859	ug/kg		J
	Unknown	10.25	386	ug/kg		J
	Unknown	10.35	541	ug/kg		J
112-95-8	Eicosane	10.63	710	ug/kg	95	NJ
	Unknown	11.57	417	ug/kg		J
	Unknown	11.61	674	ug/kg		J
	Unknown	11.9	839	ug/kg		J
	Unknown	12.32	732	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.81	453	ug/kg	95	NJ
1000214-20-7	Stigmasterol, 22,23-dihydro-	13.87	555	ug/kg	90	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2198

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202066181	MB for batch 963130	54	53	49	62	74	79
1202066182	LCS for batch 963130	50	47	48	56	69	67
248517001	RE36-10-8292	50	49	48	61	68	66

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2198 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 963130 **Matrix:** SOIL

Lab Sample ID: 1202066182

Instrument: MSD6.I **Analysis Date:** 03/21/2010 18:37 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID:** 963130

Inj. Vol: .5 uL **Batch ID:** 963133

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	662	40	22-114
108-95-2	LCS	Phenol	1670	0.0	796	48	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	856	51	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	851	51	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	769	46	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	891	53	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	838	50	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	947	57	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	659	40	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1130	68	27-116
129-00-0	LCS	Pyrene	1670	0.0	972	58	42-113
110-86-1	LCS	Pyridine	1670	0.0	679	41	8-125
62-53-3	LCS	Aniline	1670	0.0	747	45	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	738	44	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	842	50	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	428	26 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	915	55	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	707	42	28-117
95-48-7	LCS	o-Cresol	1670	0.0	798	48	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	912	55	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	748	45	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	863	52	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: LCS for batch 963130
Lab Sample ID: 1202066182
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/21/2010 18:37
Dilution: 1
Prep Batch ID: 963130
Batch ID: 963133

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	844	51	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	872	52	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	440	26 *	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	804	48	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	894	54	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	1760	53	22-138
91-20-3	LCS	Naphthalene	1670	0.0	814	49	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	831	50	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1020	61	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	868	52	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	763	46	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	943	57	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	980	59	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	883	53	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	713	43	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	754	45	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1070	64	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	990	59	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	947	57	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	937	56	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	971	58	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1100	66	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: LCS for batch 963130
Lab Sample ID: 1202066182
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/21/2010 18:37
Dilution: 1
Prep Batch ID: 963130
Batch ID: 963133

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	925	56	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1040	62	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	964	58	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	908	54	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	975	59	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	883	53	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1080	65	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1140	68	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	954	57	46-107
120-12-7	LCS	Anthracene	1670	0.0	913	55	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1040	62	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1030	62	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	961	58	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	959	58	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	944	57	36-103
218-01-9	LCS	Chrysene	1670	0.0	989	59	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	950	57	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	895	54	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	942	57	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1070	64	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	989	59	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1090	65	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2198**
Client ID: **LCS for batch 963130**
Lab Sample ID: **1202066182**
Instrument: **MSD6.I**
Analyst: **NAG1**
Inj. Vol: **.5 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/21/2010 18:37**
Dilution: **1**
Prep Batch ID: **963130**
Batch ID: **963133**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1100	66	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1070	64	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	963	58	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466MS
Lab Sample ID: 1202066183
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 12.4
Analysis Date: 03/22/2010 01:18
Prep Batch ID: 963130
Batch ID: 963133
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	435	23 *	27-98
108-95-2	MS	Phenol	1900	0.00	U	586	31 *	33-94
95-57-8	MS	2-Chlorophenol	1900	0.00	U	617	32	29-96
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	422	22 *	27-96
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	561	29	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	710	37	29-110
83-32-9	MS	Acenaphthene	1900	0.00	U	597	31	17-109
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	709	37	33-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	639	34	15-110
87-86-5	MS	Pentachlorophenol	1900	0.00	U	781	41	23-110
129-00-0	MS	Pyrene	1900	23.1	J	663	34	24-118
110-86-1	MS	Pyridine	1900	0.00	U	408	21 *	25-102
62-53-3	MS	Aniline	1900	0.00	U	447	24	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	451	24 *	29-96
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	405	21 *	26-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	482	25 *	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	448	24 *	28-103
95-48-7	MS	o-Cresol	1900	0.00	U	1040	55	32-107
65794-96-9	MS	m,p-Cresols	1900	0.00	U	743	39	33-115
67-72-1	MS	Hexachloroethane	1900	0.00	U	318	17 *	25-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	542	28	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466MS
Lab Sample ID: 1202066183
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 12.4
Analysis Date: 03/22/2010 01:18
Prep Batch ID: 963130
Batch ID: 963133
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	587	31	29-104
88-75-5	MS	2-Nitrophenol	1900	0.00	U	657	35	26-102
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	539	28	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	590	31	27-101
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	734	39	26-103
65-85-0	MS	Benzoic acid	3800	0.00	U	1540	40	13-131
91-20-3	MS	Naphthalene	1900	0.00	U	544	29	23-103
106-47-8	MS	4-Chloroaniline	1900	0.00	U	600	32	26-103
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	565	30	28-101
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	628	33	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	360	19 *	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	720	38	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	755	40	30-110
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	653	34	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	580	31 *	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	614	32 *	33-116
131-11-3	MS	Dimethylphthalate	1900	0.00	U	771	41	38-113
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	709	37	29-107
208-96-8	MS	Acenaphthylene	1900	0.00	U	686	36	25-108
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	858	45	14-102
132-64-9	MS	Dibenzofuran	1900	0.00	U	749	39	35-112
84-66-2	MS	Diethylphthalate	1900	0.00	U	757	40	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2198**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE36-10-8466MS**	**Matrix:**	**R**
Lab Sample ID:	**1202066183**	**%Moisture:**	**12.4**
Instrument:	**MSD6.I**	**Analysis Date:**	**03/22/2010 01:18**
Analyst:	**NAG1**	**Prep Batch ID:**	**963130**
Inj. Vol:	**.5 uL**	**Batch ID:**	**963133**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	676	36	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	771	41	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	800	42	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	793	42	28-135
122-39-4	MS	Diphenylamine	1900	0.00	U	710	37	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	651	34	31-113
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	781	41	31-109
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	702	37	37-99
85-01-8	MS	Phenanthrene	1900	0.00	U	667	35	29-109
120-12-7	MS	Anthracene	1900	0.00	U	698	37	19-118
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	698	37 *	39-123
206-44-0	MS	Fluoranthene	1900	12.3	J	713	37	33-114
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	645	34 *	35-131
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	653	34	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	531	28 *	30-124
218-01-9	MS	Chrysene	1900	0.00	U	656	34	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	638	34 *	37-129
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	758	40	31-143
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	683	36	29-118
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	769	40	32-118
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	678	36	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	529	28 *	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2198**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE36-10-8466MS**	**Matrix:**	**R**
Lab Sample ID:	**1202066183**	**%Moisture:**	**12.4**
Instrument:	**MSD6.I**	**Analysis Date:**	**03/22/2010 01:18**
Analyst:	**NAG1**	**Prep Batch ID:**	**963130**
Inj. Vol:	**.5 uL**	**Batch ID:**	**963133**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	576	30	27-119
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	457	24 *	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	591	31	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466MSD
Lab Sample ID: 1202066184
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/22/2010 01:42
Prep Batch ID: 963130
Batch ID: 963133
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1900	0.00	U	598	31	27-98	31 *	0-30
108-95-2	MSD	Phenol	1900	0.00	U	763	40	33-94	26	0-30
95-57-8	MSD	2-Chlorophenol	1900	0.00	U	773	41	29-96	23	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1900	0.00	U	523	28	27-96	21	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1900	0.00	U	695	37	29-102	21	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1900	0.00	U	774	41	29-110	9	0-30
83-32-9	MSD	Acenaphthene	1900	0.00	U	633	33	17-109	6	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1900	0.00	U	770	41	33-107	8	0-30
100-02-7	MSD	4-Nitrophenol	1900	0.00	U	675	36	15-110	6	0-30
87-86-5	MSD	Pentachlorophenol	1900	0.00	U	866	46	23-110	10	0-30
129-00-0	MSD	Pyrene	1900	23.1	J	721	37	24-118	8	0-30
110-86-1	MSD	Pyridine	1900	0.00	U	323	17 *	25-102	23	0-30
62-53-3	MSD	Aniline	1900	0.00	U	356	19	18-109	23	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1900	0.00	U	581	31	29-96	25	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1900	0.00	U	532	28	26-97	27	0-30
100-51-6	MSD	Benzyl alcohol	1900	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1900	0.00	U	605	32	30-97	23	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1900	0.00	U	542	29	28-103	19	0-30
95-48-7	MSD	o-Cresol	1900	0.00	U	1200	63	32-107	15	0-30
65794-96-9	MSD	m,p-Cresols	1900	0.00	U	798	42	33-115	7	0-30
67-72-1	MSD	Hexachloroethane	1900	0.00	U	402	21 *	25-100	23	0-30
98-95-3	MSD	Nitrobenzene	1900	0.00	U	698	37	27-106	25	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466MSD
Lab Sample ID: 1202066184
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/22/2010 01:42
Dilution: 1
Prep Batch ID: 963130
Batch ID: 963133

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1900	0.00	U	711	37	29-104	19	0-30
88-75-5	MSD	2-Nitrophenol	1900	0.00	U	797	42	26-102	19	0-30
105-67-9	MSD	2,4-Dimethylphenol	1900	0.00	U	826	43	22-104	42 *	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1900	0.00	U	724	38	27-101	20	0-30
120-83-2	MSD	2,4-Dichlorophenol	1900	0.00	U	760	40	26-103	4	0-30
65-85-0	MSD	Benzoic acid	3800	0.00	U	1980	52	13-131	25	0-30
91-20-3	MSD	Naphthalene	1900	0.00	U	623	33	23-103	14	0-30
106-47-8	MSD	4-Chloroaniline	1900	0.00	U	249	13 *	26-103	83 *	0-30
87-68-3	MSD	Hexachlorobutadiene	1900	0.00	U	652	34	28-101	14	0-30
91-57-6	MSD	2-Methylnaphthalene	1900	0.00	U	687	36	27-106	9	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1900	0.00	U	432	23 *	24-117	18	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1900	0.00	U	826	43	26-105	14	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1900	0.00	U	797	42	30-110	5	0-30
91-58-7	MSD	2-Chloronaphthalene	1900	0.00	U	708	37	28-102	8	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	634	33	33-106	9	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	538	28 *	33-116	13	0-30
131-11-3	MSD	Dimethylphthalate	1900	0.00	U	865	46	38-113	12	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1900	0.00	U	773	41	29-107	9	0-30
208-96-8	MSD	Acenaphthylene	1900	0.00	U	734	39	25-108	7	0-30
51-28-5	MSD	2,4-Dinitrophenol	1900	0.00	U	939	49	14-102	9	0-30
132-64-9	MSD	Dibenzofuran	1900	0.00	U	799	42	35-112	7	0-30
84-66-2	MSD	Diethylphthalate	1900	0.00	U	823	43	36-122	8	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466MSD
Lab Sample ID: 1202066184
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/22/2010 01:42
Dilution: 1
Prep Batch ID: 963130
Batch ID: 963133

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	703	37	33-105	4	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	825	43	30-110	7	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	817	43	26-97	2	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	777	41	28-135	2	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	711	37	33-109	0	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	676	36	31-113	4	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	782	41	31-109	0	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	655	34 *	37-99	7	0-30
85-01-8	MSD	Phenanthrene	1900	0.00	U	675	36	29-109	1	0-30
120-12-7	MSD	Anthracene	1900	0.00	U	696	37	19-118	0	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	705	37 *	39-123	1	0-30
206-44-0	MSD	Fluoranthene	1900	12.3	J	680	35	33-114	5	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	741	39	35-131	14	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	648	34	30-111	1	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	369	19 *	30-124	36 *	0-30
218-01-9	MSD	Chrysene	1900	0.00	U	672	35	32-108	2	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	697	37	37-129	9	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1060	56	31-143	33 *	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	0.00	U	727	38	29-118	6	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	843	44	32-118	9	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	0.00	U	660	35	33-115	3	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	0.00	U	390	21 *	29-114	30	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2198
Client ID: RE36-10-8466MSD
Lab Sample ID: 1202066184
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/22/2010 01:42
Prep Batch ID: 963130
Batch ID: 963133
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	436	23 *	27-119	28	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00	U	314	17 *	28-112	37 *	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	682	36	28-99	14	0-30

Method Blank Summary

SDG Number:	10-2198	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 963130	Instrument ID:	MSD6.1	Data File:	s6c2108-1.d
Lab Sample ID:	1202066181	Prep Date:	03/10/2010 12:14	Analyzed:	03/21/10 18:13
Column:	J&W DB-5MS	Level:	LOW		

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

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 963130	1202066182	s6c2109-1.d	03/21/10	1837
02 RE36-10-8292	248517001	s6c2113.d	03/21/10	2012

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2198

Instrument ID: MSD6.I **Injection Date/Time:** 16-MAR-10 08:42

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s031610.b/s6c1601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.3
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	50.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	52
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	76.8
442	Greater than 40% of mass 198	55.2
443	17 - 23% of mass 442	18.9

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s6c1603.d	16-MAR-10 09:18
MEGA010	WBN100309-07	s6c1604.d	16-MAR-10 09:47
MEGA020	WBN100309-06	s6c1605.d	16-MAR-10 10:17
MEGA040	WBN100309-05.1	s6c1606.d	16-MAR-10 10:48
MEGA050	WBN100309-04	s6c1607.d	16-MAR-10 11:18
MEGA080	WBN100309-03	s6c1608.d	16-MAR-10 11:48
MEGA100	WBN100309-02	s6c1609.d	16-MAR-10 12:18
MEGA120	WBN100309-01	s6c1610.d	16-MAR-10 12:48
MEGAICV	WBN100309-09.1	s6c1612.d	16-MAR-10 13:40

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2198

Instrument ID: MSD6.I **Injection Date/Time:** 16-MAR-10 16:06

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s031610.b/s6c1613.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.8
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	74.3
442	Greater than 40% of mass 198	65.5
443	17 - 23% of mass 442	19.6

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100312-01	s6c1615.d	16-MAR-10 16:42
AP020	WBN100312-02	s6c1616.d	16-MAR-10 17:06
AP040	WBN100312-03.1	s6c1617.d	16-MAR-10 17:30
AP050	WBN100312-04	s6c1618.d	16-MAR-10 17:53
AP080	WBN100312-05	s6c1619.d	16-MAR-10 18:16
AP100	WBN100312-06	s6c1620.d	16-MAR-10 18:40
AP120	WBN100312-07	s6c1621.d	16-MAR-10 19:04
APICV	WBN100312-08.1	s6c1635.d	17-MAR-10 00:41

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2198

Instrument ID: MSD6.I **Injection Date/Time:** 21-MAR-10 16:41

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s032110.b/s6c2104.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	38.5
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	38.8
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	45.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.5
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.5
442	Greater than 40% of mass 198	81.6
443	17 - 23% of mass 442	19.5

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.3	s6c2105.d	21-MAR-10 16:55
APCVS	WBN100312-03.3	s6c2106.d	21-MAR-10 17:25
SBLK01	1202066181	s6c2108-1.d	21-MAR-10 18:13
SBLK01LCS	1202066182	s6c2109-1.d	21-MAR-10 18:37
RE36-10-8292	248517001	s6c2113.d	21-MAR-10 20:12

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG· 10-2198

Instrument: MSD6.I

STD Analysis Time: 21-MAR-10 16:55

GC Column: J&W DB-5MS

Data File: s6c2105.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	534666		3.82	1941232		4.69	1147252		5.93	1917801		7.09	1700059		9.49	1455801		11.1
Upper Limit	1069332		4.32	3882464		5.19	2294504		6.43	3835602		7.59	3400118		9.99	2911602		11.6
Lower Limit	267333		3.32	970616		4.19	573626		5.43	958901		6.59	850030		8.99	727901		10.6
Sample ID																		
BLK01	295580		3.82	1018109		4.69	646278		5.93	1121980		7.09	1078901		9.49	985086		11.1
BLK01LCS	284919		3.83	1047683		4.69	641307		5.94	1110497		7.1	1005420		9.49	866256		11.1
RE36-10-8292	302525		3.82	1103626		4.69	699952		5.94	1251753		7.1	1063318		9.49	764484		11.1

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 20:12**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2113.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.5	427
108-95-2	Phenol	U	427	ug/kg	85.5	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.5	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.5	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.5	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.5	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	J	14.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.5	427
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.5	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.5	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.5	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.5	427
95-48-7	o-Cresol	U	427	ug/kg	85.5	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.5	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.5	427
78-59-1	Isophorone	U	427	ug/kg	85.5	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.5	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	150	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.5	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.5	427
65-85-0	Benzoic acid	J	229	ug/kg	214	855
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7
106-47-8	4-Chloroaniline	U	427	ug/kg	85.5	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.5	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.55	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.5	427
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.5	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.5	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	427	ug/kg	85.5	427
99-09-2	3-Nitroaniline	U	427	ug/kg	85.5	427

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 20:12**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2113.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	427	ug/kg	85.5	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855
132-64-9	Dibenzofuran	U	427	ug/kg	85.5	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.5	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.5	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.5	427
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	p-Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.5	427
122-66-7	Azobenzene	U	427	ug/kg	85.5	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.5	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.5	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.55	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.5	427
206-44-0	Fluoranthene	J	16.9	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.5	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	427	ug/kg	85.5	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.5	427
205-99-2	Benzo(b)fluoranthene	J	14.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.5	427

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.69	477	ug/kg		J
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	7.74	534	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 20:12**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2113.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1000130-90-5	2-Methyl-Z,Z-3,13-octadecadienol	8.12	357	ug/kg	89	NJ
	Unknown	8.32	205	ug/kg		J
	Unknown	8.86	394	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	8.94	214	ug/kg	98	NJ
	Unknown	9.02	247	ug/kg		J
	Unknown	9.12	248	ug/kg		J
	Unknown	9.22	424	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.29	571	ug/kg	93	NJ
	Unknown	9.43	259	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	9.59	211	ug/kg	86	NJ
1000303-05-9	Pyridine, 4-[5-(2-methoxyphenyl)-[1,3,4]	9.71	263	ug/kg	90	NJ
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	9.85	2190	ug/kg	90	NJ
3386-33-2	Octadecane, 1-chloro-	9.91	320	ug/kg	95	NJ
	Unknown	10.15	859	ug/kg		J
	Unknown	10.25	386	ug/kg		J
	Unknown	10.35	541	ug/kg		J
112-95-8	Eicosane	10.63	710	ug/kg	95	NJ
	Unknown	11.57	417	ug/kg		J
	Unknown	11.61	674	ug/kg		J
	Unknown	11.9	839	ug/kg		J
	Unknown	12.32	732	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.81	453	ug/kg	95	NJ
1000214-20-7	Stigmasterol, 22,23-dihydro-	13.87	555	ug/kg	90	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2113.d
Lab Smp Id: 248517001 Client Smp ID: RE36-10-8292
Inj Date : 21-MAR-2010 20:12
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248517001|963133|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 22-Mar-2010 16:50 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2198.sub
Target Version: 3.50
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	22.10250	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.822	3.822	(1.000)	302525	40.0000	
* 29 Naphthalene-d8	136	4.687	4.687	(1.000)	1103626	40.0000	
* 46 Acenaphthene-d10	164	5.940	5.934	(1.000)	699952	40.0000	
* 67 Phenanthrene-d10	188	7.098	7.093	(1.000)	1251753	40.0000	
* 91 Chrysene-d12	240	9.492	9.486	(1.000)	1063318	40.0000	
* 98 Perylene-d12	264	11.086	11.075	(1.000)	764484	40.0000	
$ 3 2-Fluorophenol	112	3.022	3.005	(0.791)	423721	50.3836	2150
$ 5 Phenol-d5	99	3.546	3.534	(0.928)	522334	48.8384	2090
$ 20 Nitrobenzene-d5	82	4.187	4.181	(0.893)	254296	24.1040	1030
$ 39 2-Fluorobiphenyl	172	5.428	5.422	(0.914)	551357	30.5310	1300
$ 60 2,4,6-Tribromophenol	329	6.528	6.522	(1.099)	134450	68.4516	2930
$ 81 p-Terphenyl-d14	244	8.469	8.463	(0.892)	608996	32.8667	1400

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.363	8.357	(0.881)	11177	0.34481	14.7(a)
27 Benzoic acid	105	4.428	4.463	(0.945)	27731	5.35954	229(aQ)
76 Fluoranthene	202	8.151	8.139	(1.148)	12258	0.39630	16.9(a)
95 Benzo(b)fluoranthene	252	10.598	10.586	(0.956)	7166	0.34480	14.7(aQ)

QC Flag Legend

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

ION RATIO REPORT

SV REPORT

Data file: s6c2113.d
Report Date: 03/22/2010 20:24
Lab. ID: 248517001 SampleType: SAMPLE
Injection Date: 21-MAR-2010 20:12
Operator: nagl Instrument: MSD6.i
Sample Info: |248517001|963133|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2198
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	27278	3.55	3.60	80-120	100	( )
93	1186	3.50	3.60	402-462	4	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	36716	4.19	4.06	80-120	100	(T)
42	21907	4.19	4.06	40-100	60	(T)
21 Nitrobenzene			CAS#: 98-95-3			
77	20997	4.43	4.20	80-120	100	(T)
65	1498	4.43	4.20	0- 45	7	(T)
123	2100	4.43	4.20	16- 76	10	(QT)
22 Isophorone			CAS#: 78-59-1			
82	254296	4.19	4.35	80-120	100	(T)
138	6005	4.69	4.35	0- 50	2	(T)
25 bis(2-Chloroethoxy)methane				CAS#: 111-91-1		
93	20545	4.02	4.47	80-120	100	(T)
123	2100	4.43	4.47	0- 48	10	( )
95	547	4.16	4.47	3- 63	3	(QT)
27 Benzoic acid			CAS#: 65-85-0			
105	27731	4.43	4.46	80-120	100	( )
122	21506	4.43	4.46	114-174	78	(Q)
77	20997	4.43	4.46	71-131	76	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	20493	5.67	5.53	80-120	100	(T)
164	1233	5.67	5.53	4- 64	6	(T)
127	1551	5.67	5.53	8- 68	8	(T)
42 o-Nitroaniline			CAS#: 88-74-4			
65	22761	5.67	5.59	80-120	100	(T)
92	27474	5.67	5.59	38- 98	121	(QT)
138	2131	5.67	5.59	80-140	9	(QT)
43 Dimethylphthalate			CAS#: 131-11-3			
163	125811	5.94	5.70	80-120	100	(T)
164	699952	5.94	5.70	0- 41	556	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	30154	5.43	5.83	80-120	100	(T)
151	30611	5.43	5.83	0- 50	102	(QT)
153	9603	5.43	5.83	0- 44	32	(T)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	91646	5.94	6.05	80-120	100	(T)
89	1415	5.94	6.05	39- 99	2	(QT)
63	1669	5.94	6.05	20- 80	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	8771	6.53	6.34	80-120	100	(T)
165	7852	6.53	6.34	60-120	90	(T)
167	2879	6.53	6.34	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	426	6.53	6.36	80-120	100	(T)
105	969	6.53	6.36	9- 69	227	(QT)
51	1052	6.53	6.35	28- 88	247	(QT)
69 Anthracene			CAS#: 120-12-7			
178	8020	7.12	7.15	80-120	100	( )
179	2270	7.12	7.15	0- 47	28	( )
176	1654	7.12	7.15	0- 49	21	( )
76 Fluoranthene			CAS#: 206-44-0			
202	12258	8.15	8.14	80-120	100	( )
203	2274	8.15	8.14	0- 48	19	( )
101	1308	8.15	8.14	0- 41	11	( )
79 Pyrene			CAS#: 129-00-0			
202	11177	8.36	8.36	80-120	100	( )
200	2523	8.36	8.36	0- 51	23	( )
101	1131	8.36	8.36	0- 43	10	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene			CAS#: 218-01-9			
228	7958	9.49	9.51	80-120	100	( )
229	2487	9.49	9.51	0- 51	31	( )
226	2166	9.49	9.51	0- 59	27	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	7166	10.60	10.59	80-120	100	( )
253	750	10.60	10.59	0- 52	10	( )
125	3146	10.59	10.59	0- 40	44	(Q)
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	7166	10.60	10.62	80-120	100	( )
253	750	10.60	10.62	0- 52	10	( )
125	2886	10.59	10.62	0- 39	40	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2113.d
Lab Smp Id: 248517001 Client Smp ID: RE36-10-8292
Inj Date : 21-MAR-2010 20:12
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248517001|963133|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 22-Mar-2010 16:50 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2198.sub
Target Version: 3.50
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	22.10250	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 67 Phenanthrene-d10	7.098	3084619	40.000
* 91 Chrysene-d12	9.492	4899974	40.000
* 98 Perylene-d12	11.086	2528038	40.000

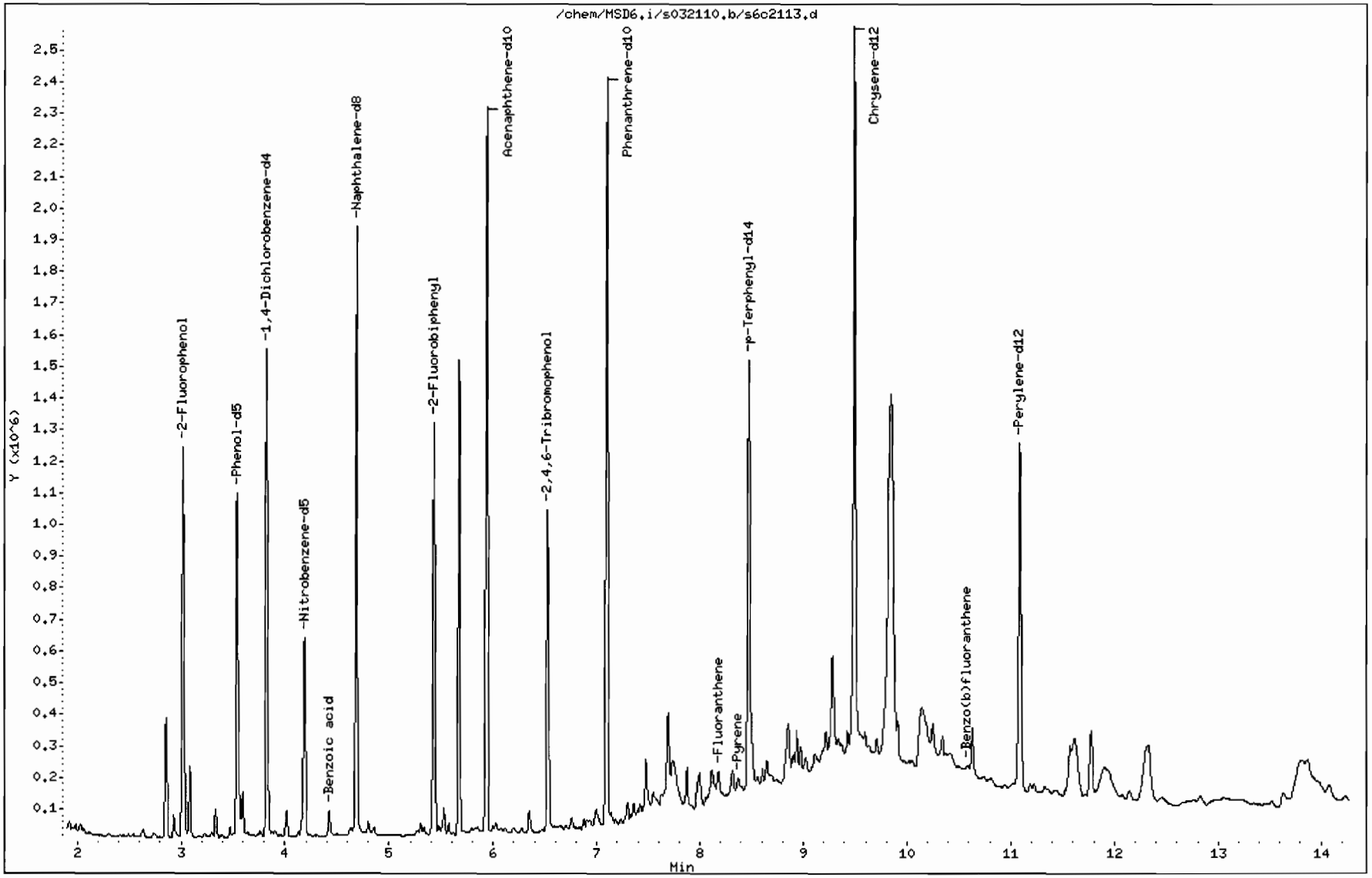
		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
7.692	860340	11.1565084	477	0		0	67
Androst-4-en-3-one, 17-hydroxy-, (17.bet					CAS #: 58-22-0		
7.739	962685	12.4836771	534	86	NIST05.L	117326	67
2-Methyl-Z,Z-3,13-octadecadienol					CAS #: 1000130-90-5		
8.116	644854	8.36218416	357	89	NIST05.L	112083	67
Unknown					CAS #:		
8.316	588809	4.80662527	205	0		0	91
Unknown					CAS #:		
8.857	1127765	9.20628833	394	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
8.939	614473	5.01613067	214	98	NIST05.L	133618	91
Unknown					CAS #:		
9.022	708958	5.78744509	247	0		0	91
Unknown					CAS #:		
9.116	710139	5.79708234	248	0		0	91
Unknown					CAS #:		
9.222	1214220	9.91205274	424	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
9.286	1636675	13.3606842	571	93	NIST05.L	125034	91
Unknown					CAS #:		
9.428	741015	6.04913429	258	0		0	91
Nonadecane, 1-chloro-					CAS #: 62016-76-6		
9.592	605264	4.94095371	211	86	NIST05.L	126107	91
Pyridine, 4-[5-(2-methoxyphenyl)-[1,3,4]					CAS #: 1000303-05-9		
9.710	753758	6.15315600	263	90	NIST05.L	93935	91
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur					CAS #: 300574-36-1		
9.845	6263727	51.1327261	2180	90	NIST05.L	68738	91
Octadecane, 1-chloro-					CAS #: 3386-33-2		
9.910	916097	7.47838098	320	95	NIST05.L	117264	91

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
10.145	2462810	20.1046750	859	0		0	91
Unknown				CAS #:			
10.251	1106522	9.03287793	386	0		0	91
Unknown				CAS #:			
10.345	800495	12.6658746	541	0		0	98
Eicosane				CAS #: 112-95-8			
10.633	1049066	16.5988963	710	95	NIST05.L	113492	98
Unknown				CAS #:			
11.569	616275	9.75103143	417	0		0	98
Unknown				CAS #:			
11.610	997028	15.7755122	674	0		0	98
Unknown				CAS #:			
11.904	1239803	19.6168453	838	0		0	98
Unknown				CAS #:			
12.322	1082573	17.1290547	732	0		0	98
.gamma.-Sitosterol				CAS #: 83-47-6			
13.810	669743	10.5970367	453	95	NIST05.L	174402	98
Stigmasterol, 22,23-dihydro-				CAS #: 1000214-20-7			
13.869	820603	12.9840202	555	90	NIST05.L	174408	98

Data File: /chem/MSD6.i/s032110.b/s6c2113.d
Date : 21-MAR-2010 20:12
Client ID: RE36-10-8292
Sample Info: |248517001|963133|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20



Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Page 2

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

Volume Injected (uL): 0.5

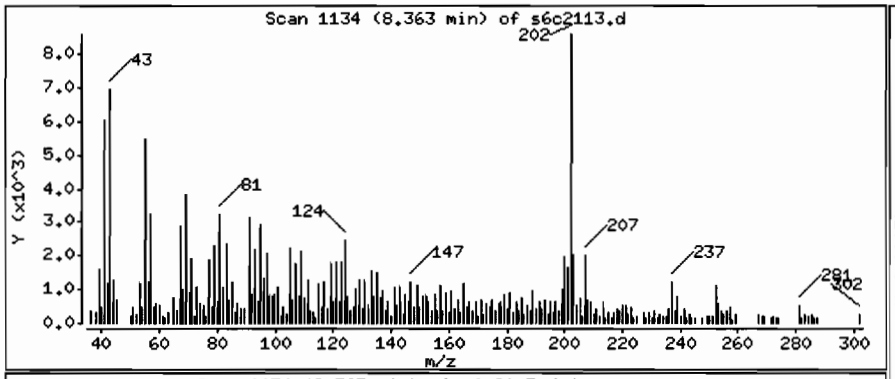
Operator: nag1

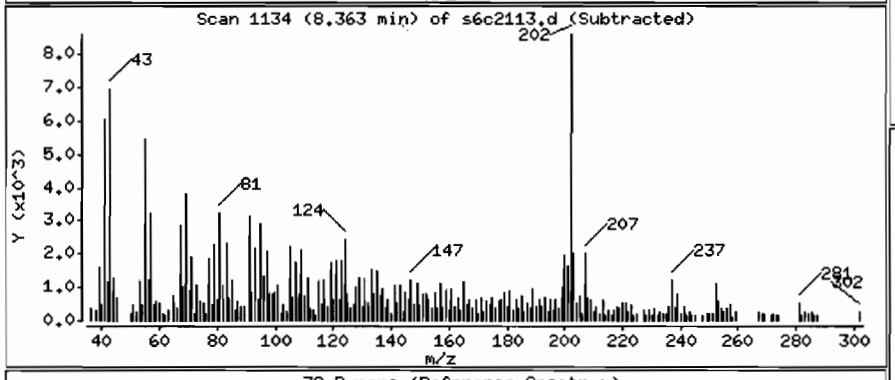
Column phase: J&W DB-5MS

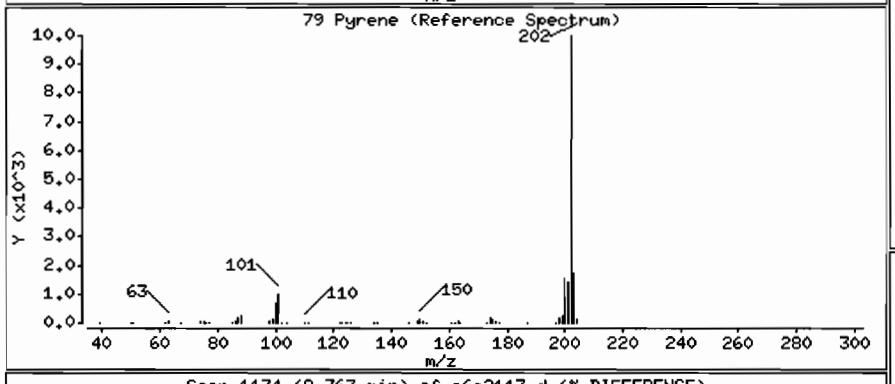
Column diameter: 0.20

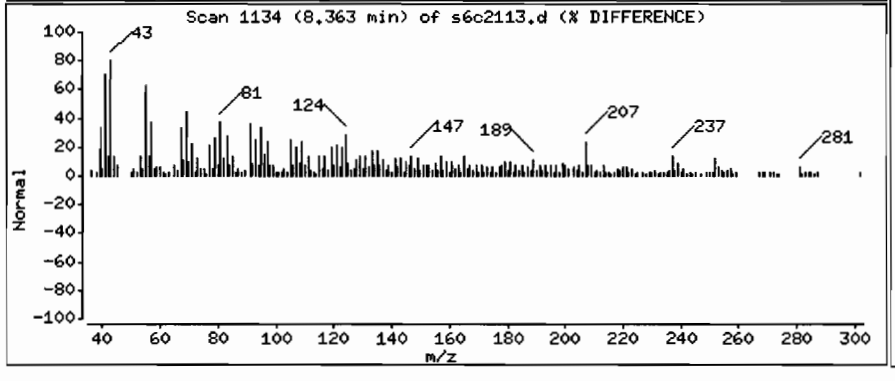
79 Pyrene

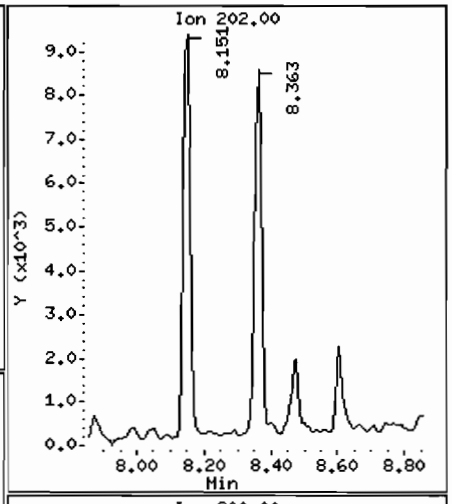
Concentration: 14.7 ug/Kg

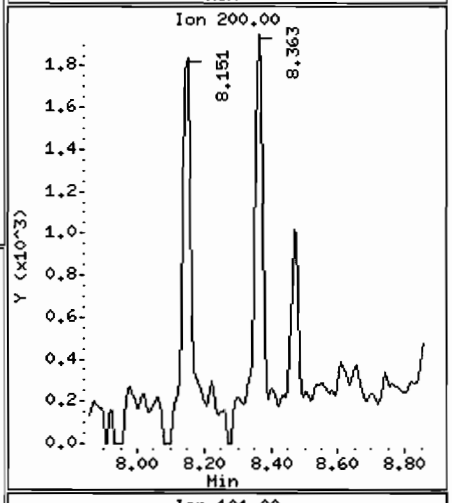


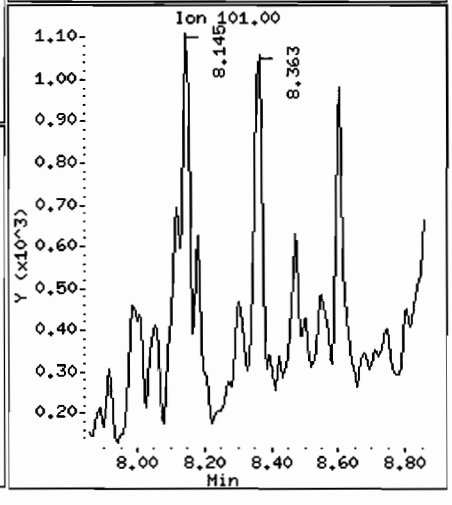












Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

Volume Injected (uL): 0.5

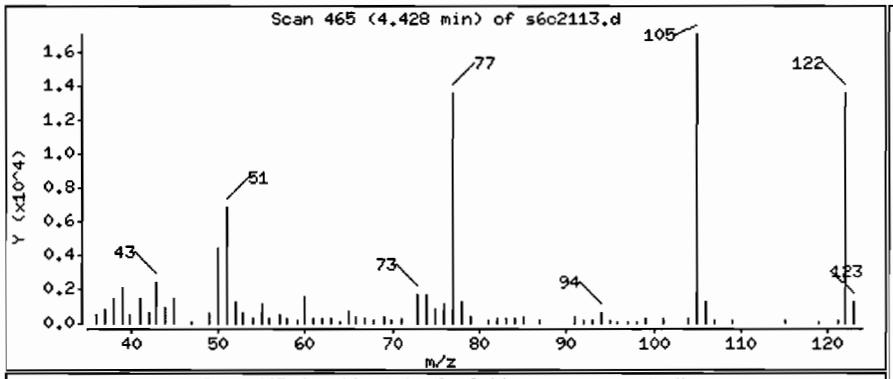
Operator: nag1

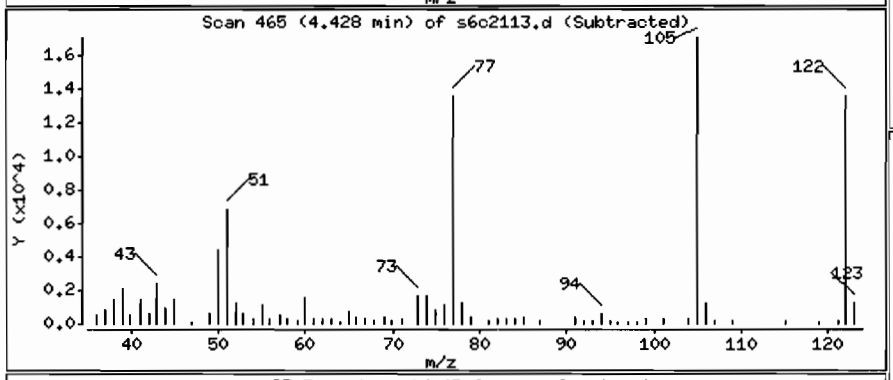
Column phase: J&W DB-5MS

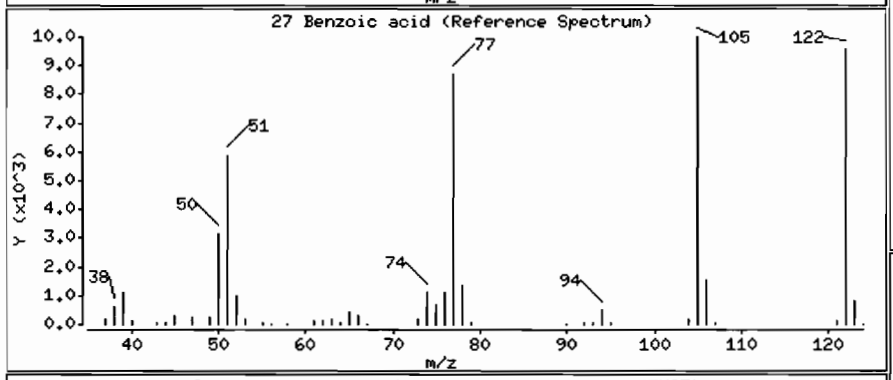
Column diameter: 0.20

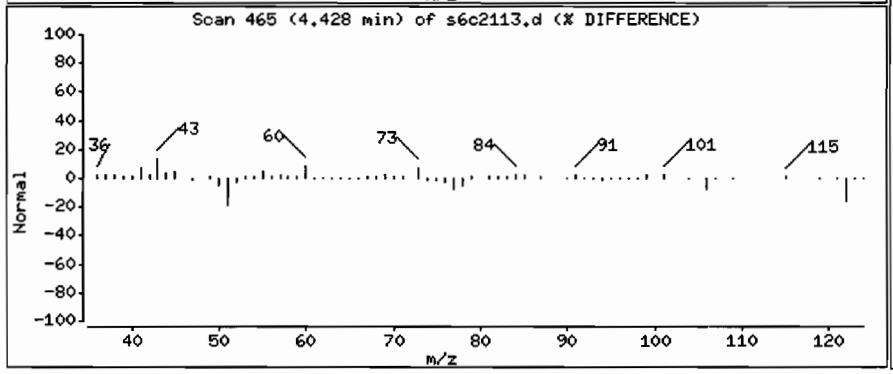
27 Benzoic acid

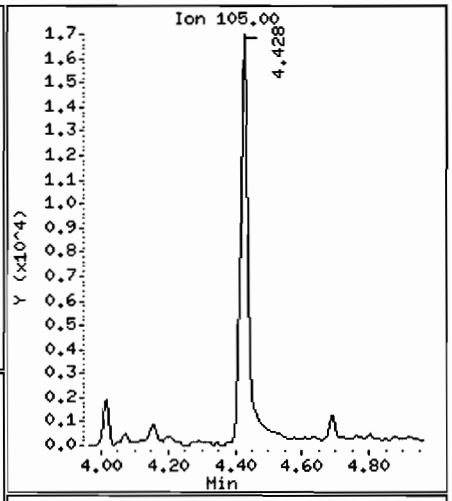
Concentration: 229 ug/Kg

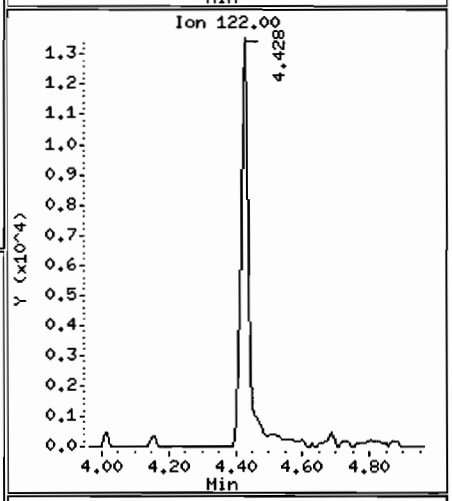


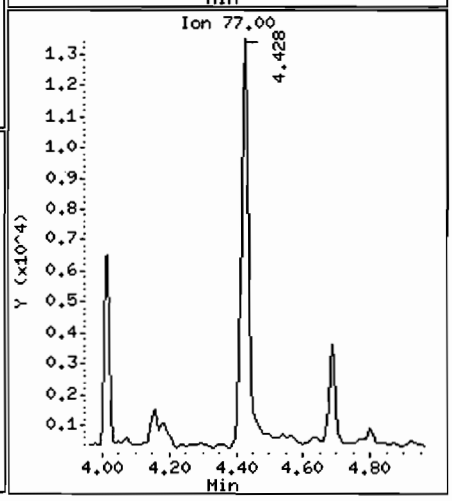












Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: 1248517001|963133|1|SVM|1|LANL

Volume Injected (uL): 0.5

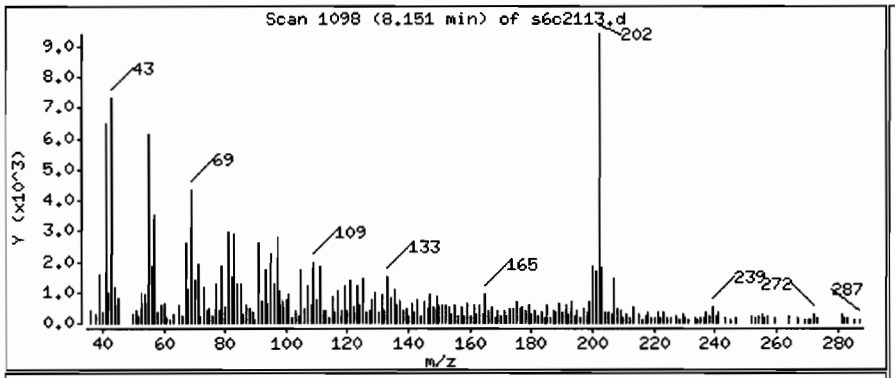
Operator: nag1

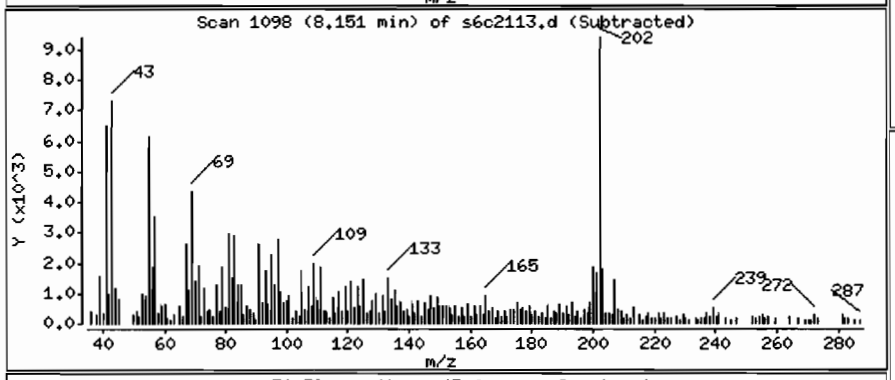
Column phase: J&W DB-5MS

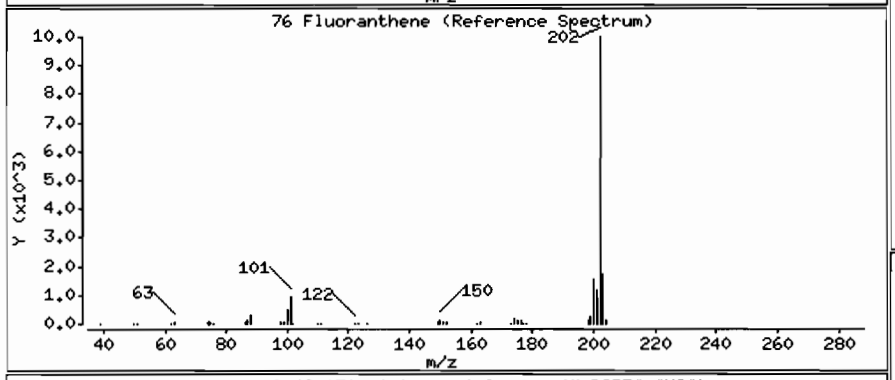
Column diameter: 0.20

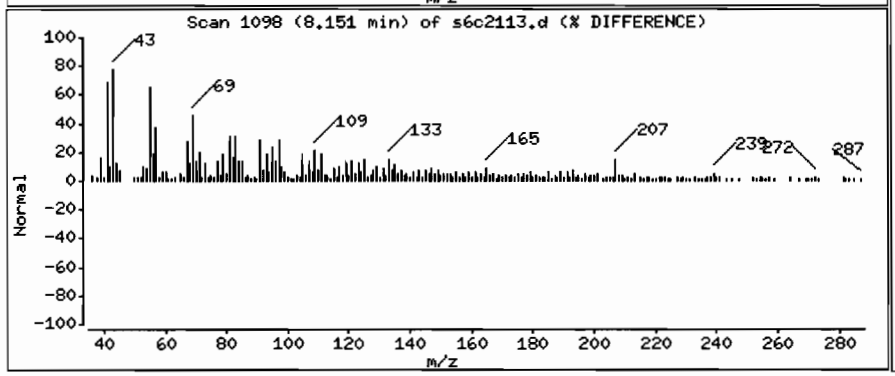
76 Fluoranthene

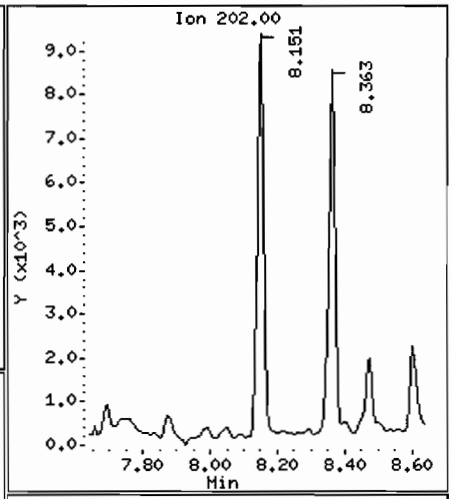
Concentration: 16.9 ug/Kg

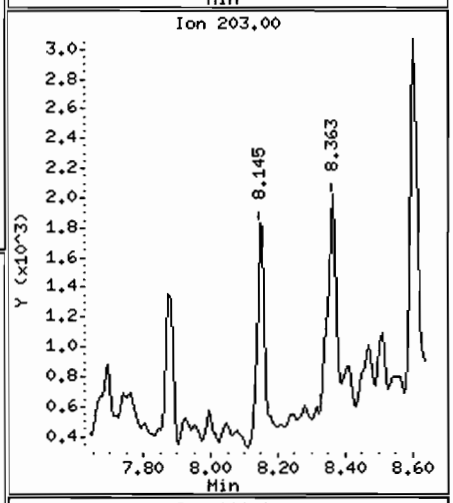


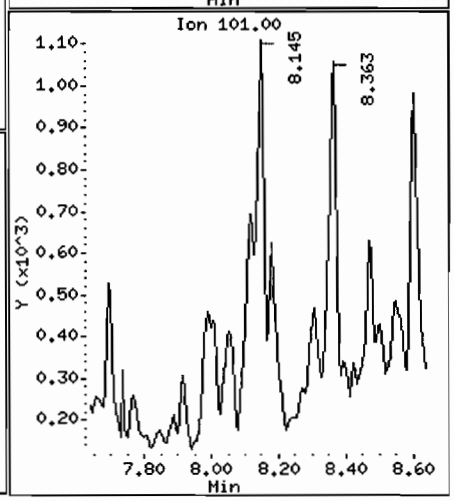












Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

Volume Injected (uL): 0.5

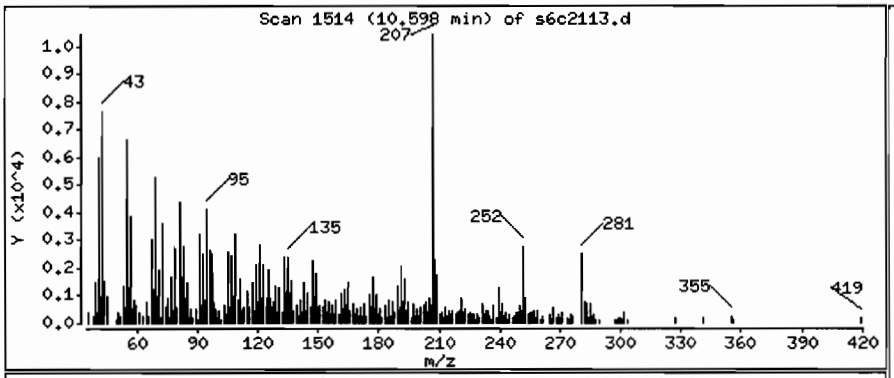
Operator: nag1

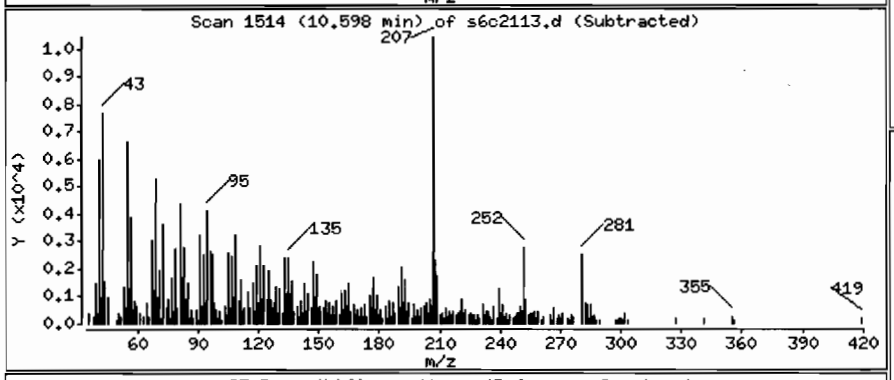
Column phase: J&W DB-5MS

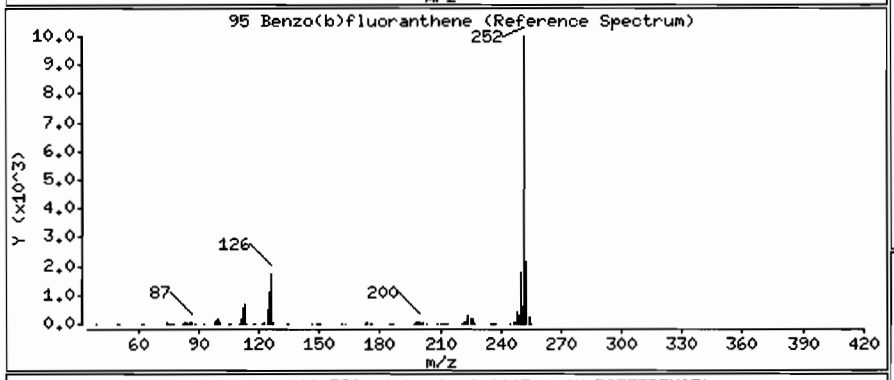
Column diameter: 0.20

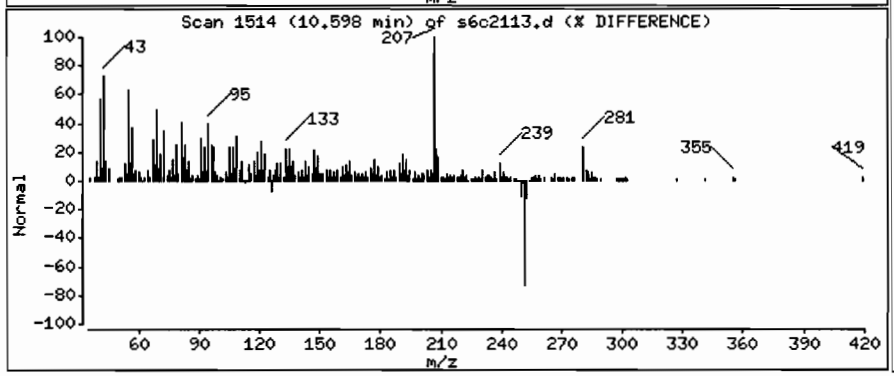
95 Benzo(b)fluoranthene

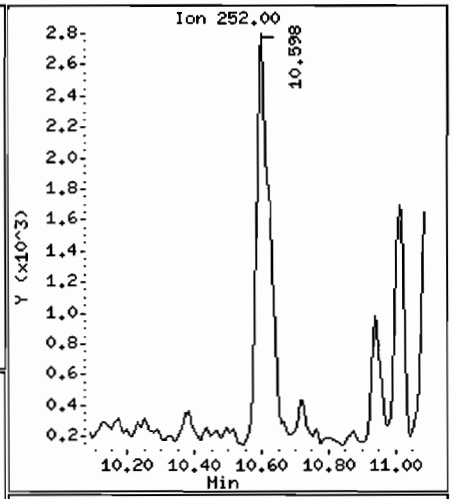
Concentration: 14.7 ug/Kg

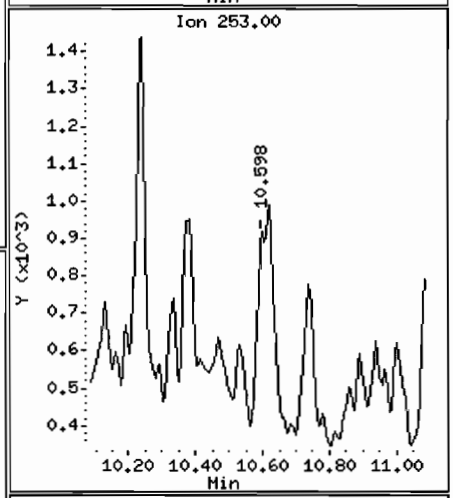


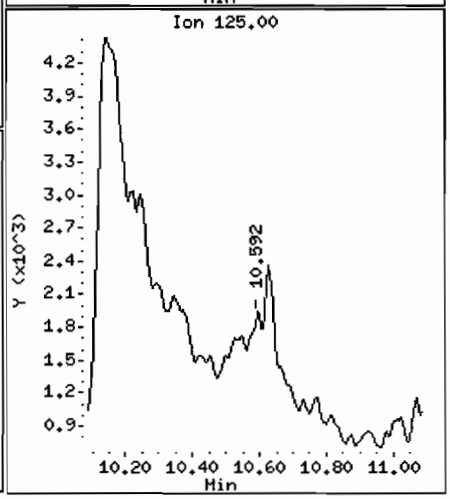












Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

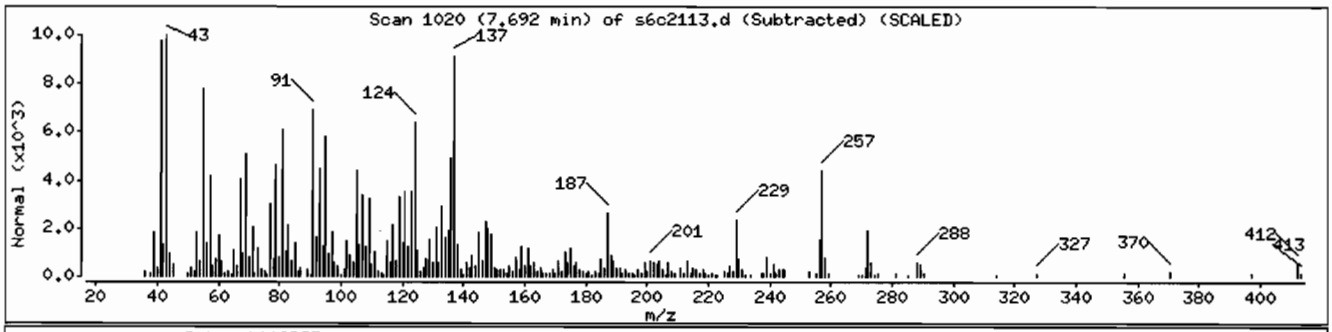
Volume Injected (uL): 0.5

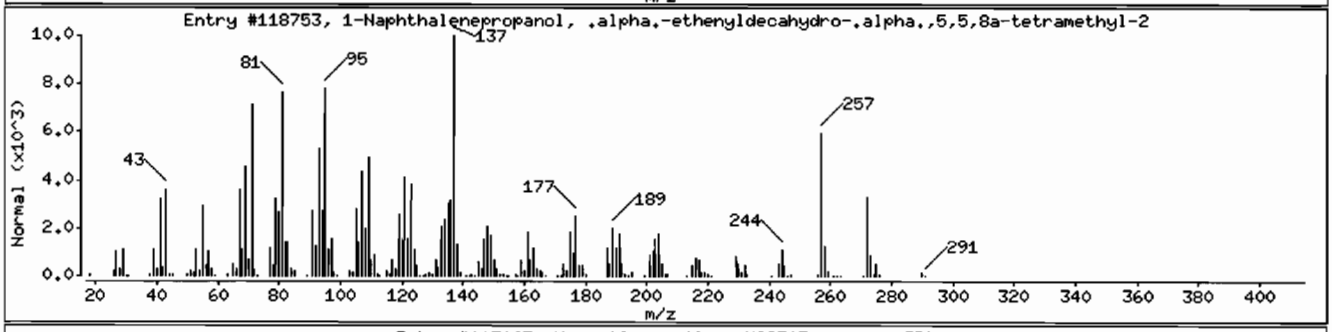
Operator: nag1

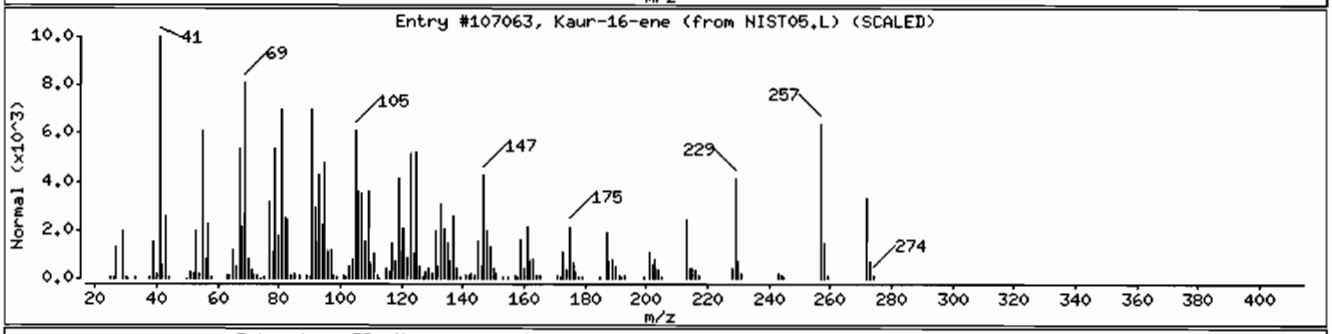
Column phase: J&W DB-5MS

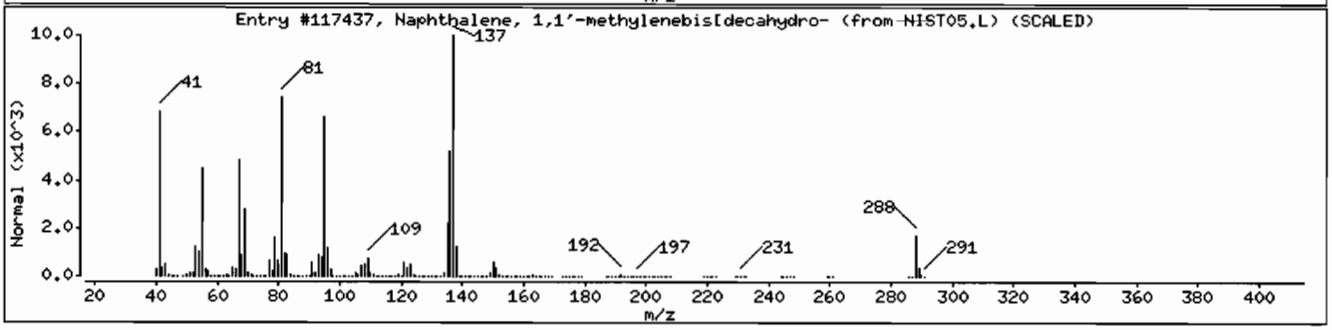
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Naphthalenepropanol, .alpha.-ethenylde	596-85-0	NIST05.L	118753	60	C20H34O	290
Kaur-16-ene	562-28-7	NIST05.L	107063	50	C20H32	272
Naphthalene, 1,1'-methylenebis[decahydro	55125-02-5	NIST05.L	117437	45	C21H36	288









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133111SVM11LANL

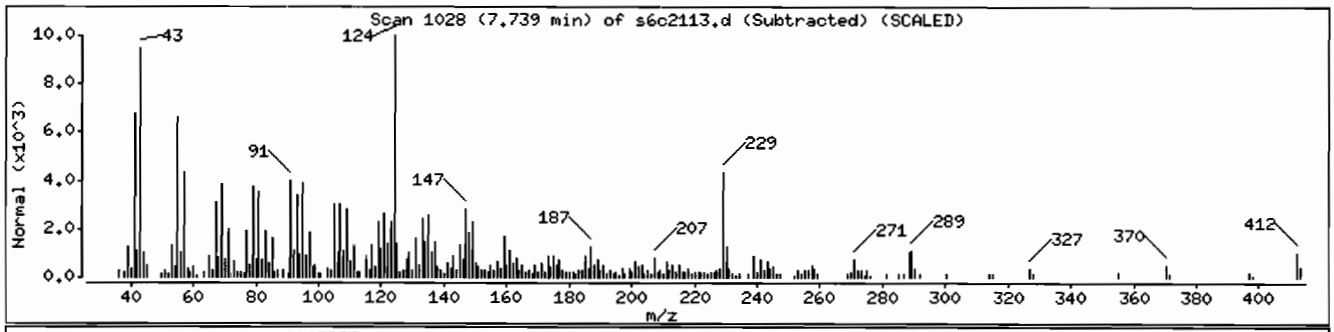
Volume Injected (uL): 0.5

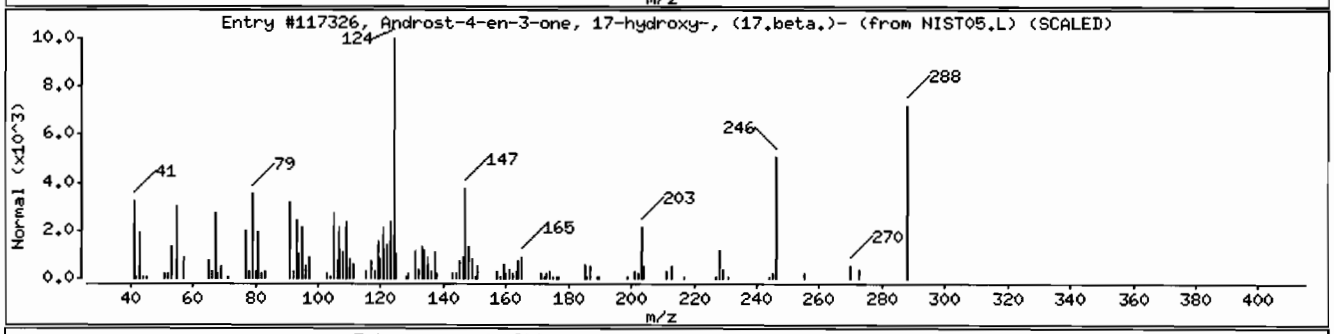
Operator: nag1

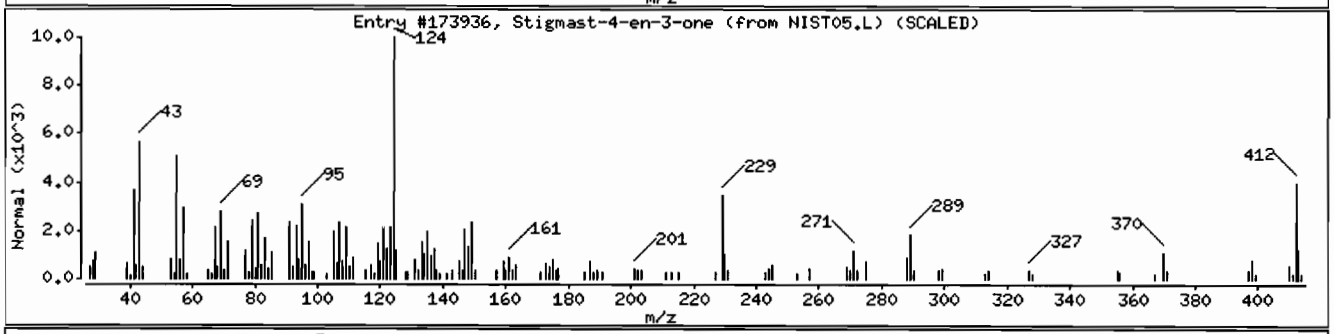
Column phase: J&W DB-5MS

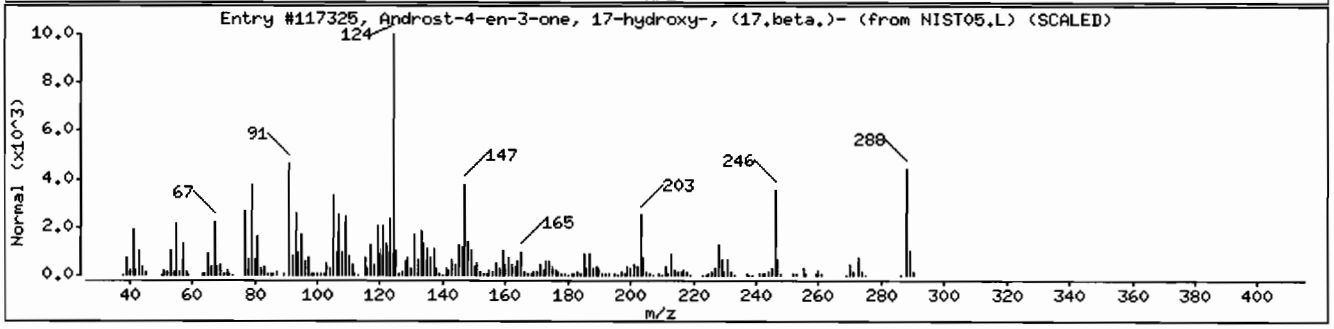
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	86	C19H2802	288
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	83	C29H480	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	66	C19H2802	288









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

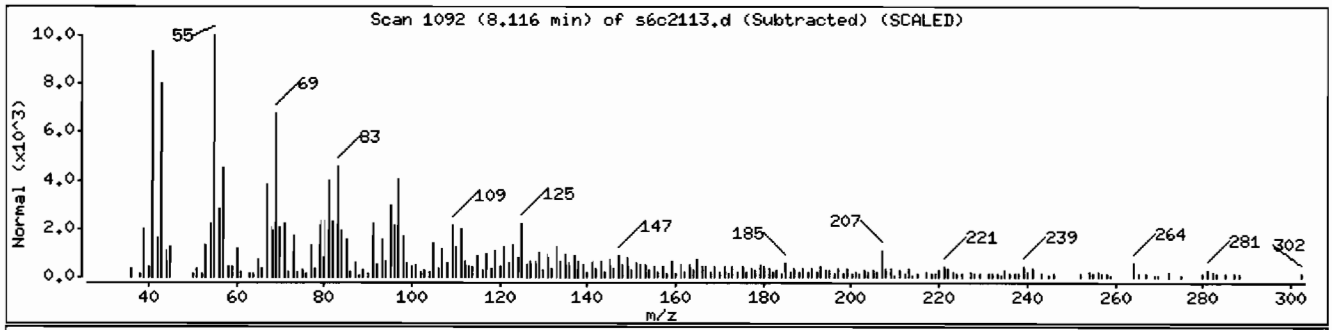
Client ID: RE36-10-8292 Instrument: MSD6.i

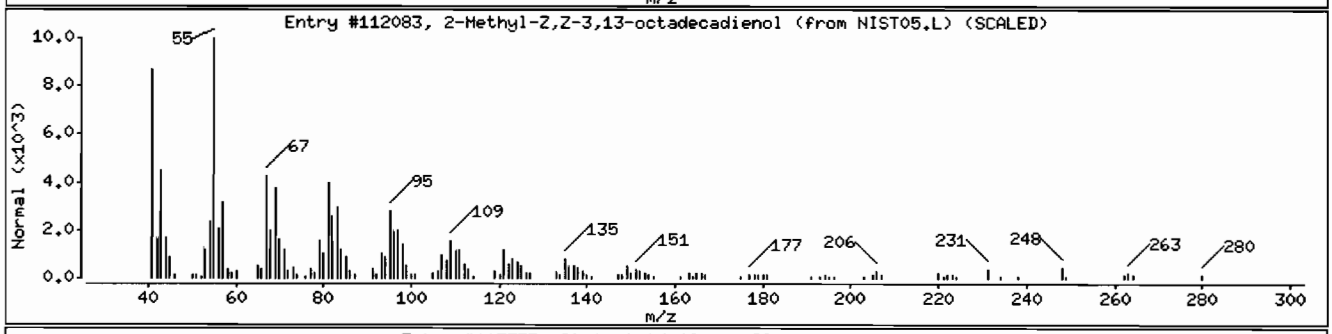
Sample Info: |248517001|963133|1|SVM|1|LANL

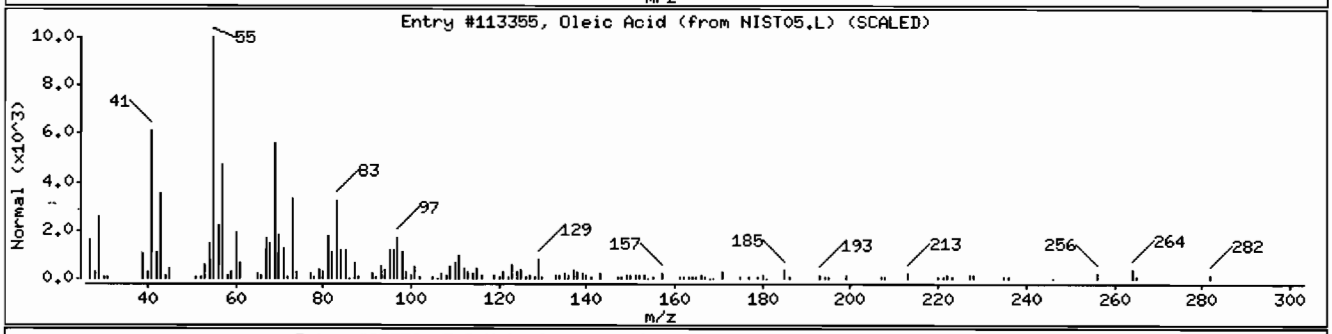
Volume Injected (uL): 0.5 Operator: nag1

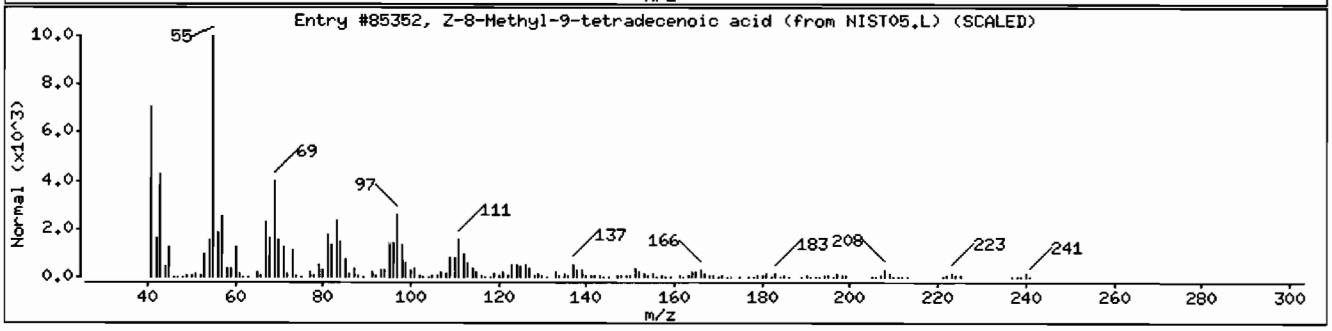
Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Methyl-Z,Z-3,13-octadecadienol	1000130-90-5	NIST05.L	112083	89	C19H360	280
Oleic Acid	112-80-1	NIST05.L	113355	86	C18H3402	282
Z-8-Methyl-9-tetradecenoic acid	1000130-84-5	NIST05.L	85352	86	C15H2802	240









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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

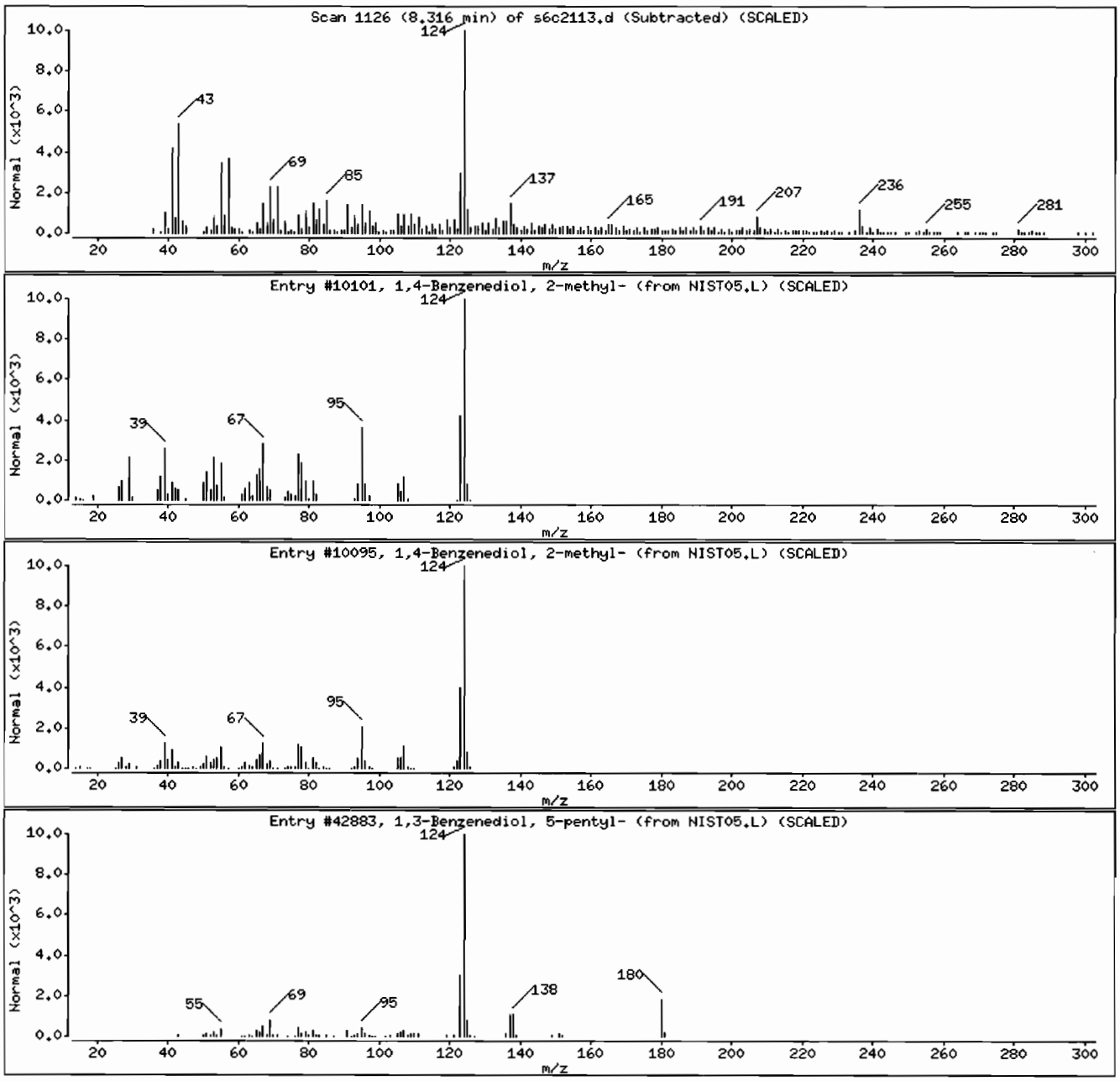
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Benzenediol, 2-methyl-	95-71-6	NIST05.L	10101	60	C7H8O2	124
1,4-Benzenediol, 2-methyl-	95-71-6	NIST05.L	10095	60	C7H8O2	124
1,3-Benzenediol, 5-pentyl-	500-66-3	NIST05.L	42883	52	C11H16O2	180



Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

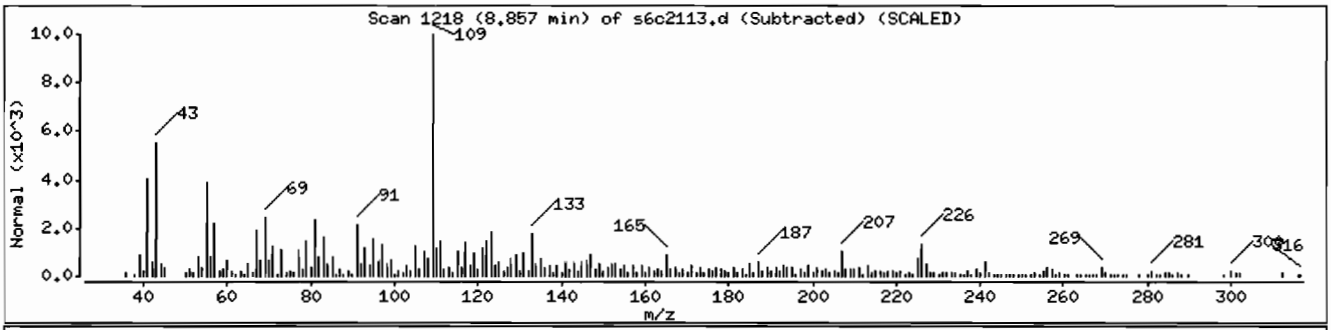
Client ID: RE36-10-8292 Instrument: MSD6.i

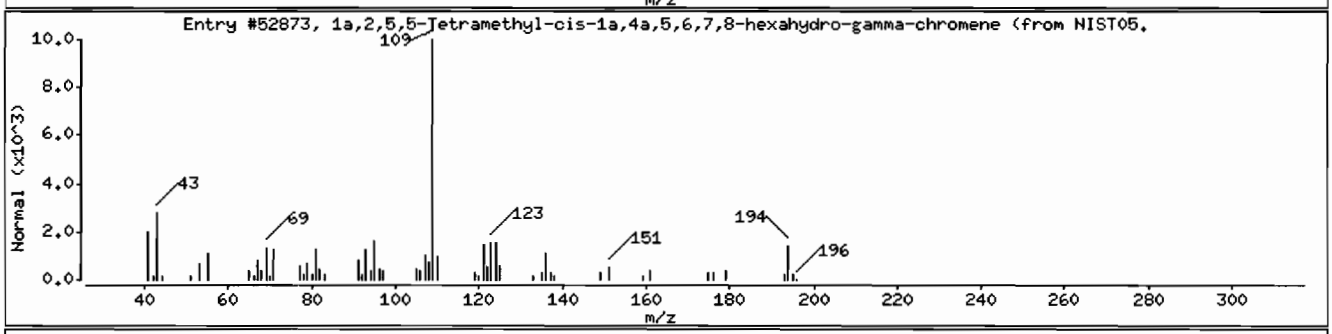
Sample Info: |248517001|963133|1|SVH|1|LANL

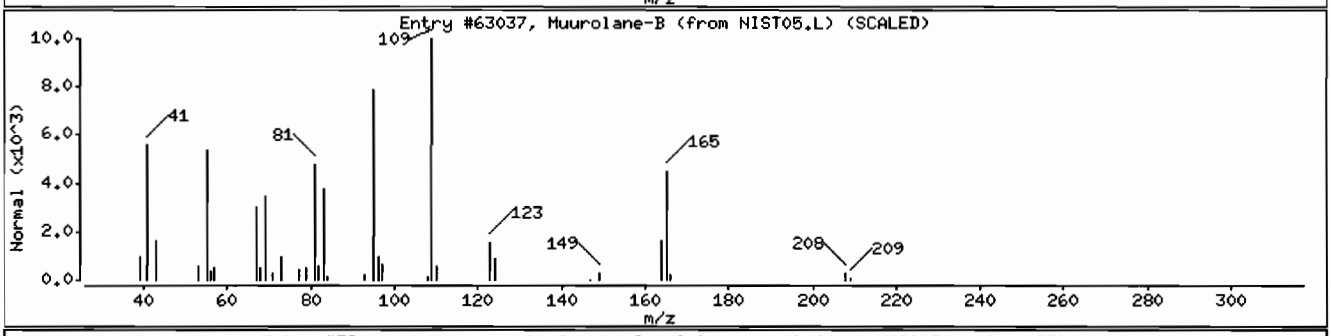
Volume Injected (uL): 0.5 Operator: nag1

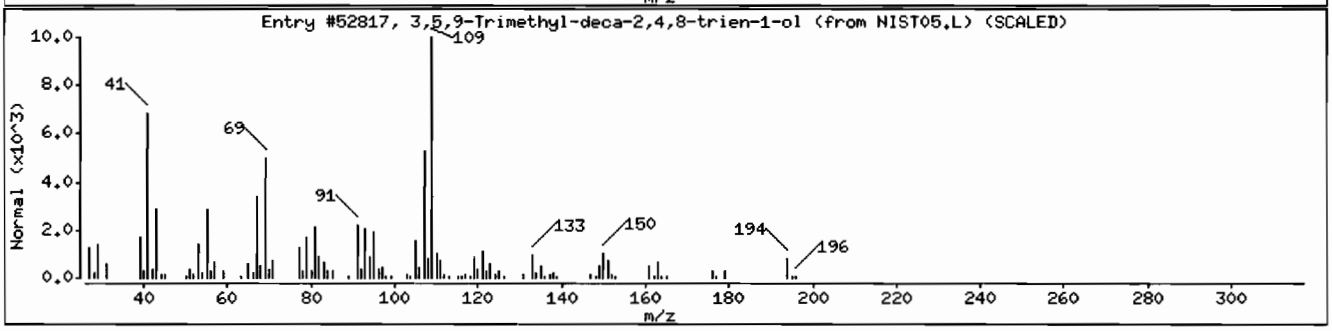
Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1a,2,5,5-Tetramethyl-cis-1a,4a,5,6,7,8-h	1000215-77-7	NIST05.L	52873	53	C13H220	194
Muurolane-B	1000121-63-7	NIST05.L	63037	46	C15H28	208
3,5,9-Trimethyl-deca-2,4,8-trien-1-ol	1000188-00-3	NIST05.L	52817	46	C13H220	194









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: 1248517001|963133|1|SVM|1|LANL

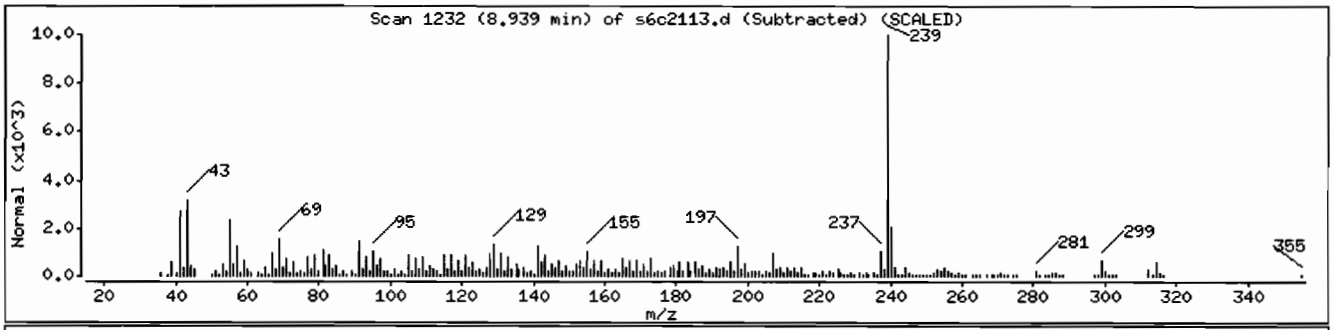
Volume Injected (uL): 0.5

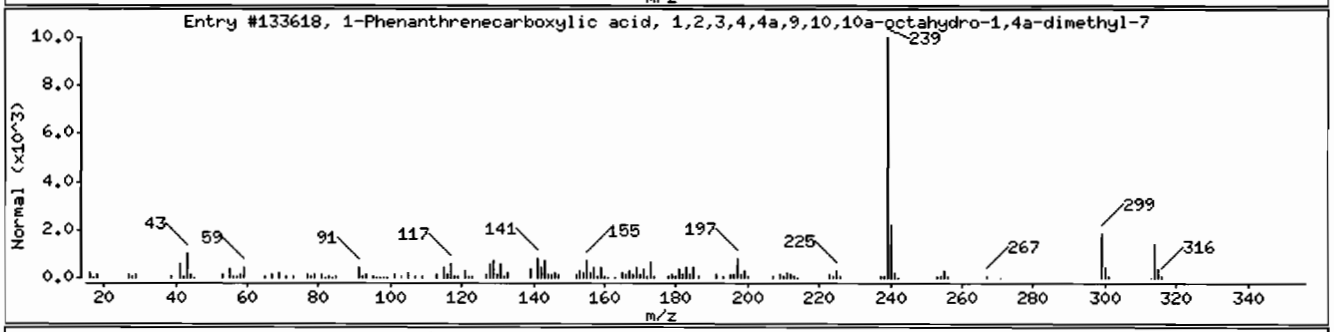
Operator: nag1

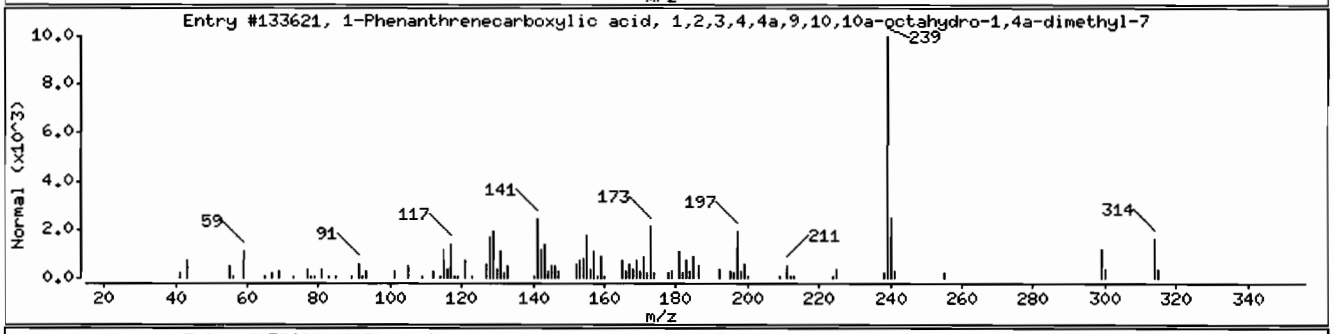
Column phase: J&W DB-5MS

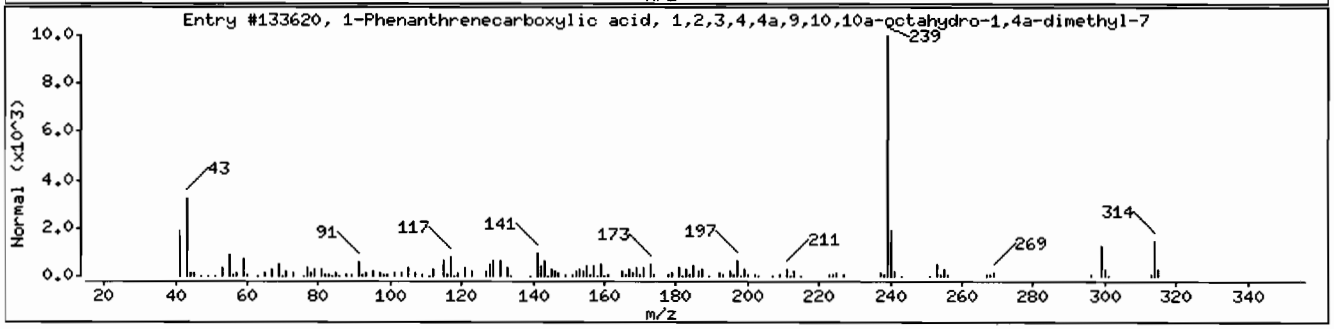
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	98	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	95	C21H3002	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	83	C21H3002	314









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

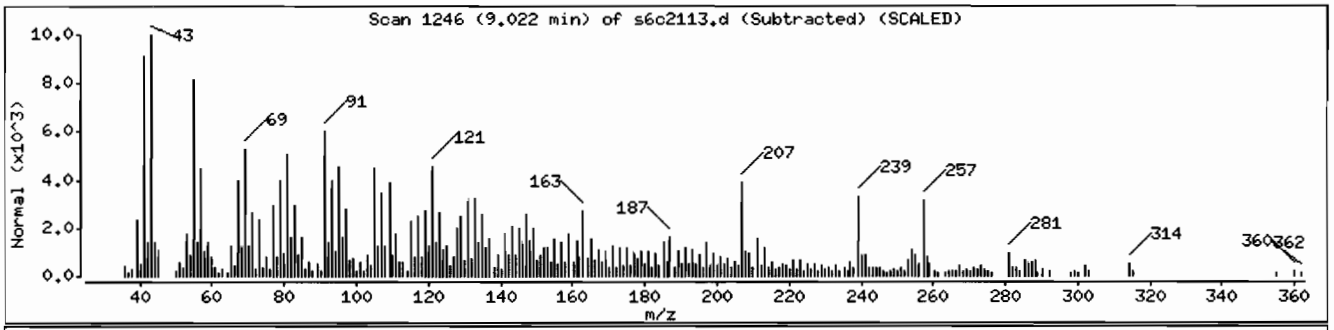
Client ID: RE36-10-8292 Instrument: MSD6.i

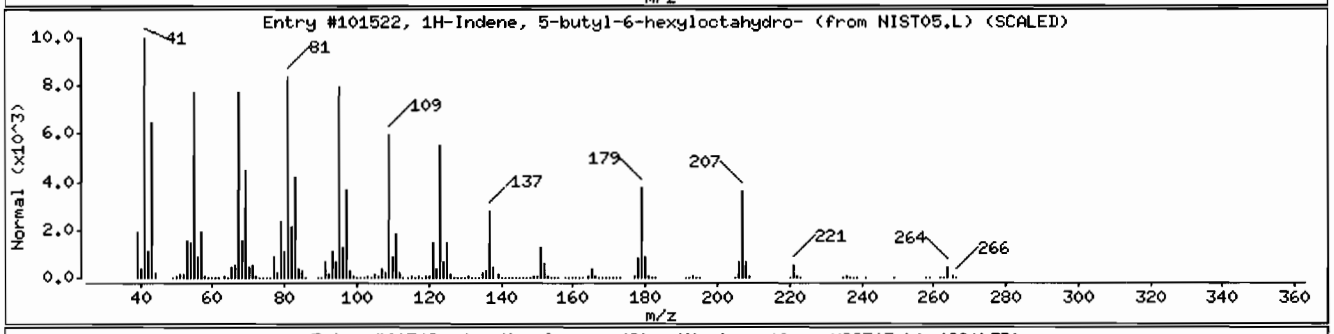
Sample Info: |248517001|963133|1|SVM|1|LANL

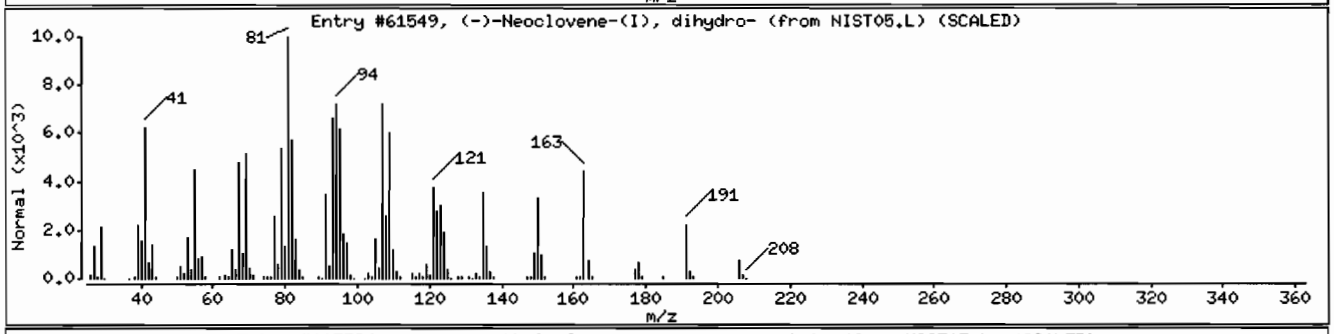
Volume Injected (uL): 0.5 Operator: nag1

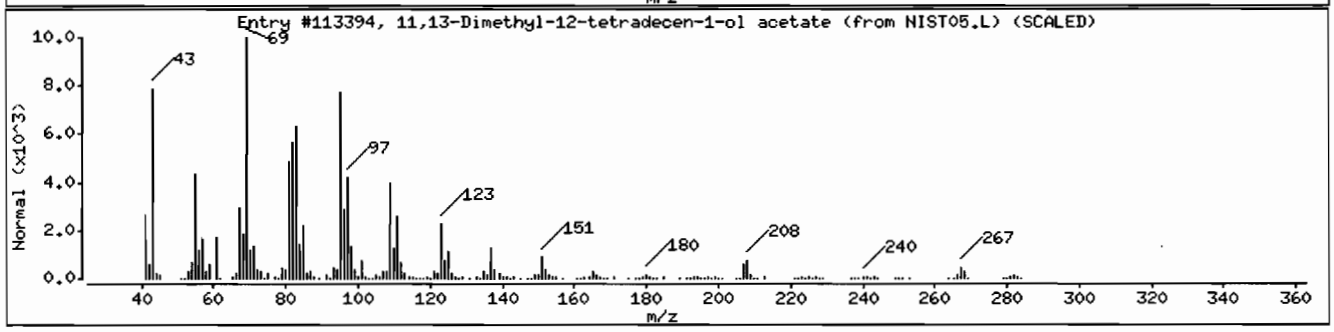
Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	59	C19H36	264
(-)-Neoclovene-(I), dihydro-	1000152-82-1	NIST05.L	61549	51	C15H26	206
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	35	C18H3402	282









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: 1248517001|963133|1|SVMI1|LANL

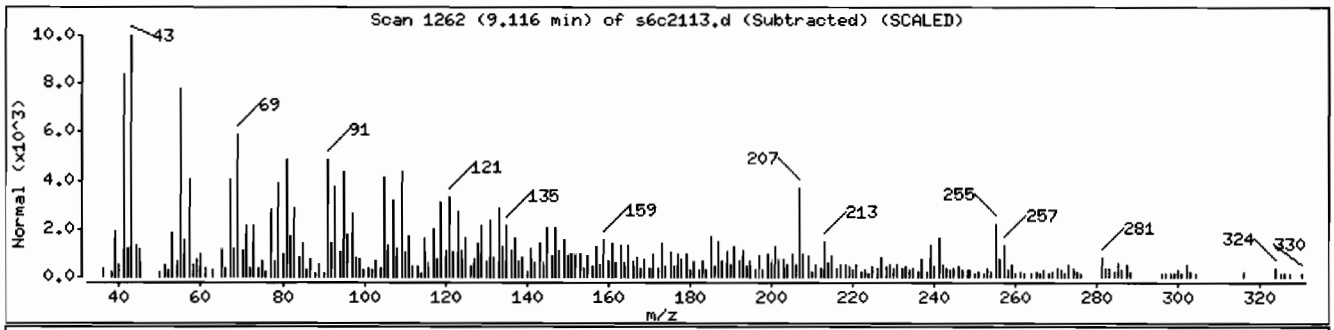
Volume Injected (uL): 0.5

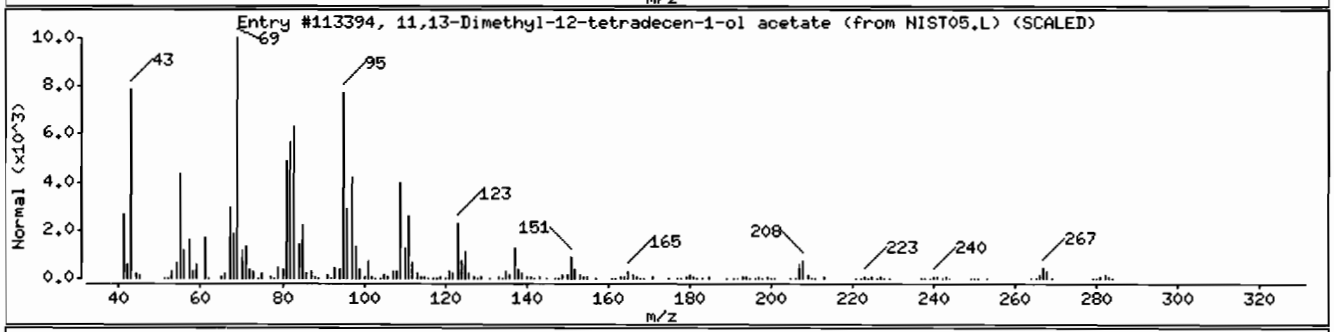
Operator: nag1

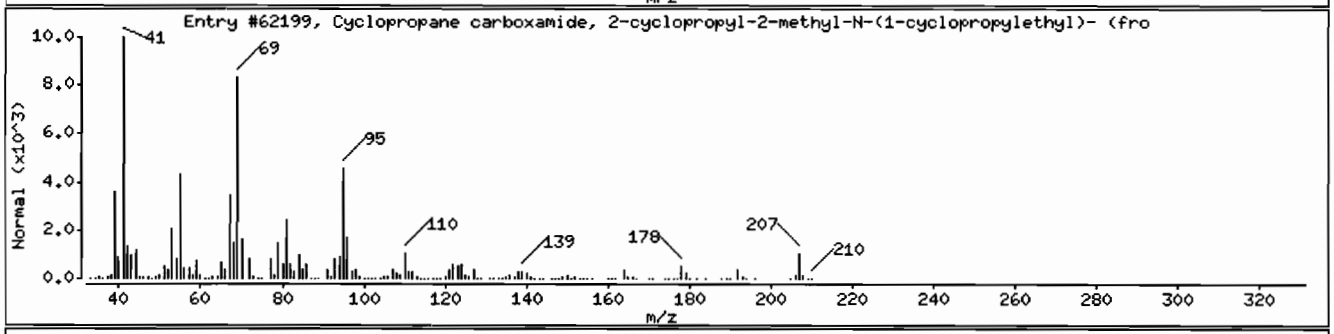
Column phase: J&W DB-5MS

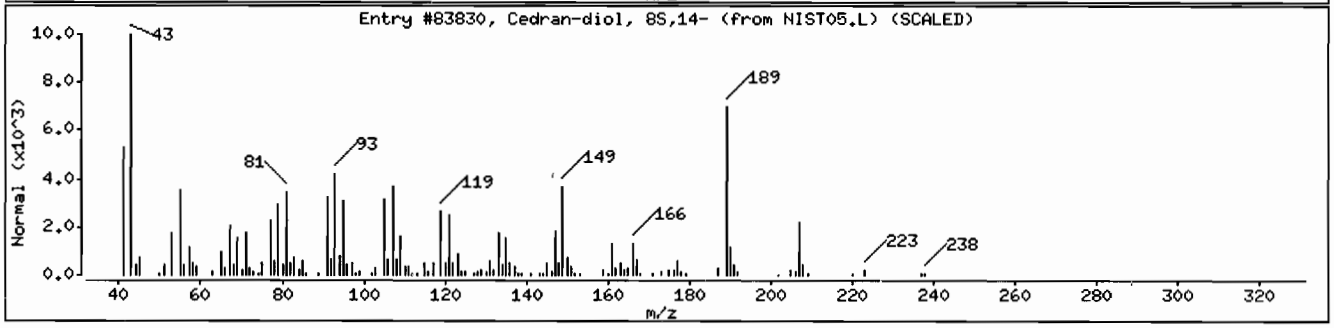
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	47	C18H34O2	282
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	46	C13H21NO	207
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	46	C15H26O2	238









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

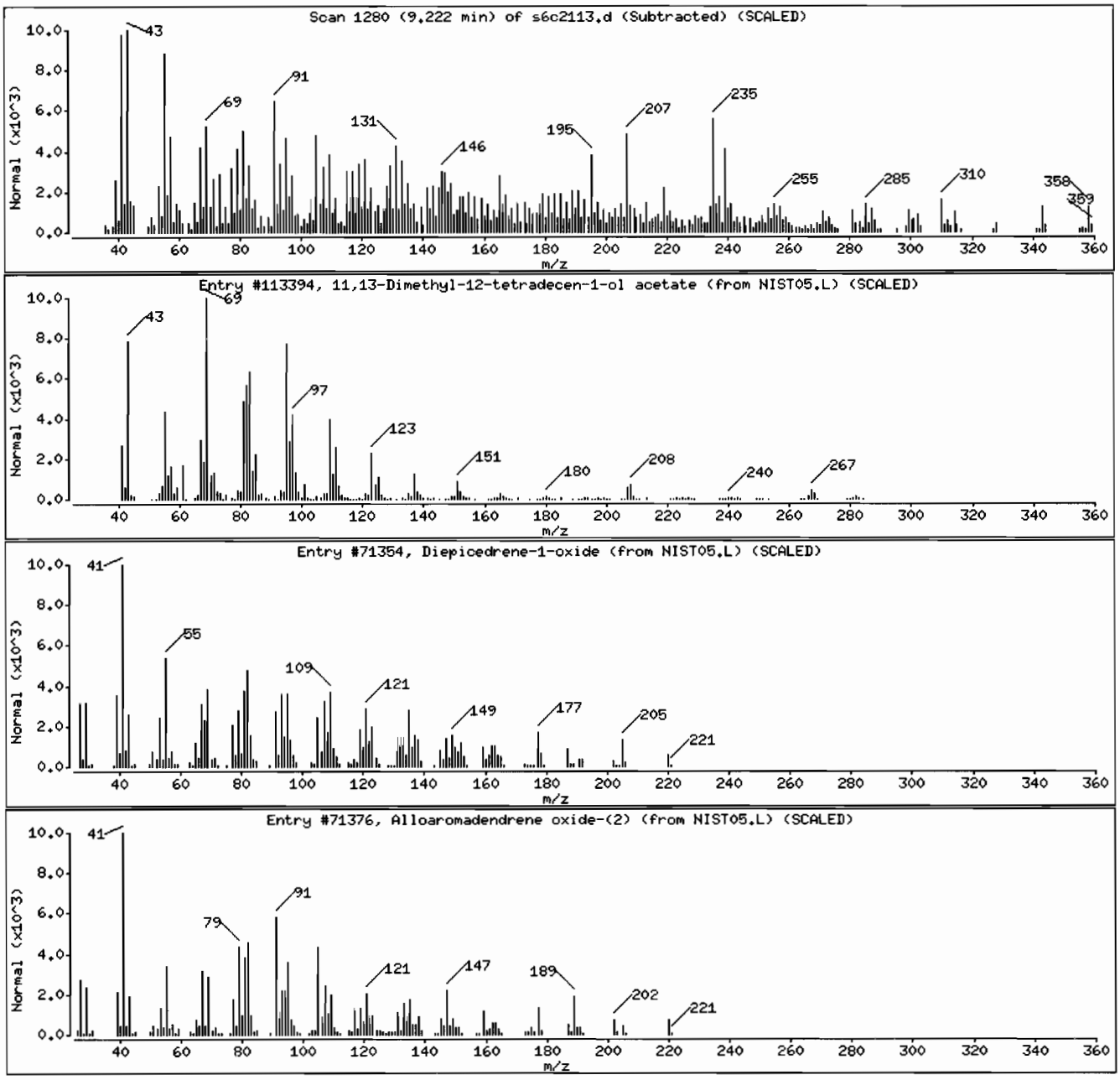
Client ID: RE36-10-8292 Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	53	C18H3402	282
Diepicedrene-1-oxide	1000156-11-0	NIST05.L	71354	53	C15H240	220
Alloaromadendrene oxide-(2)	1000156-12-7	NIST05.L	71376	44	C15H240	220



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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVMI1|LANL

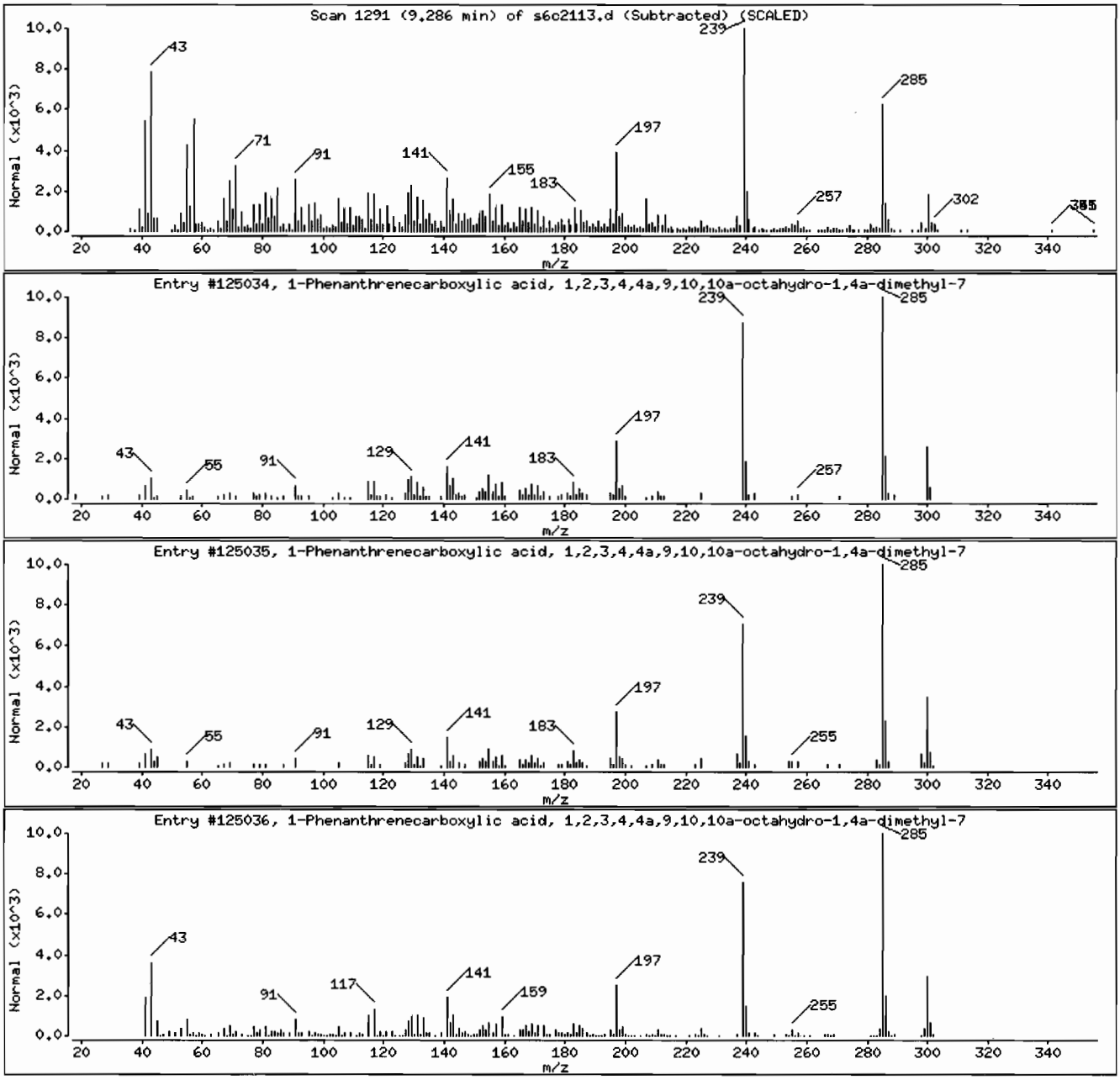
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	93	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	76	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	72	C20H2802	300



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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: 1248517001|96313311|SVM|1|LANL

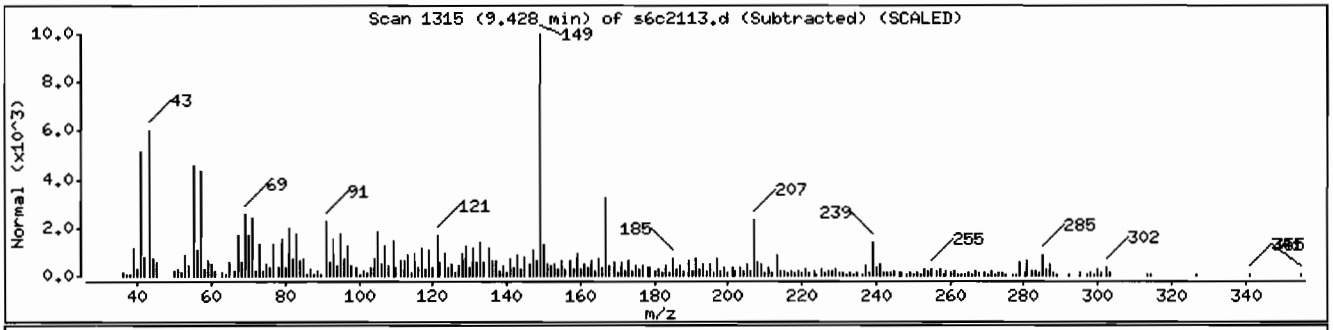
Volume Injected (uL): 0.5

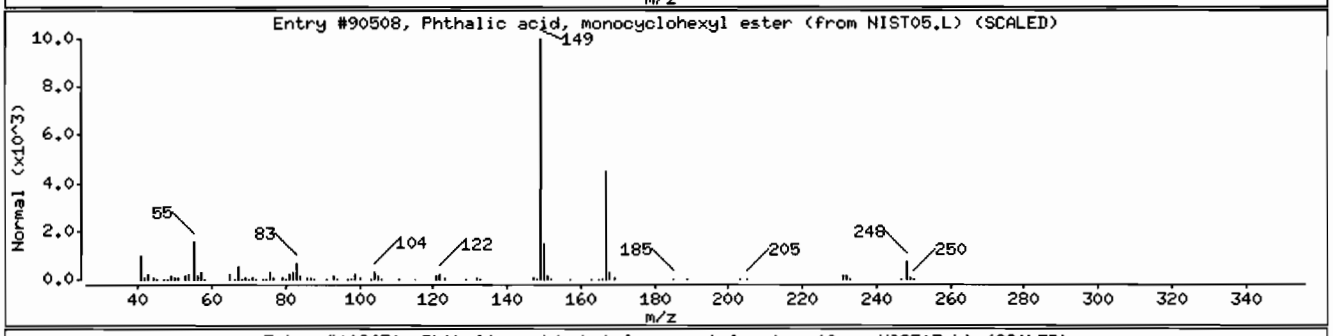
Operator: nag1

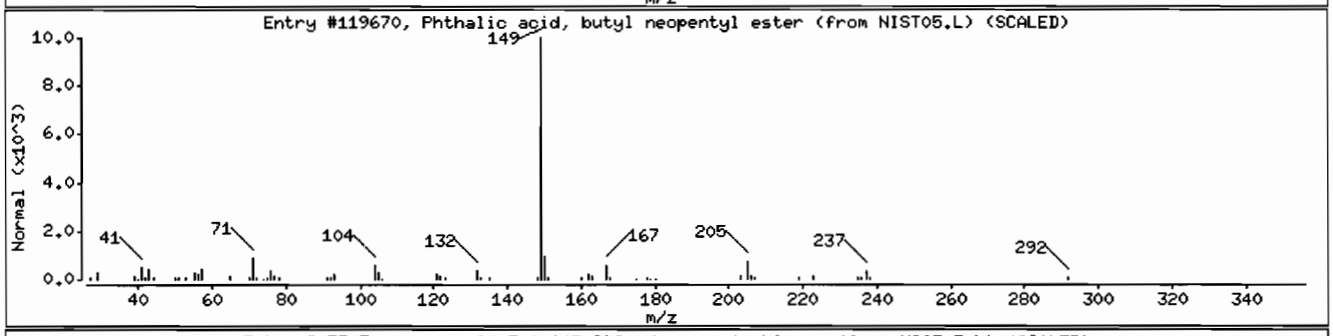
Column phase: J&W DB-5MS

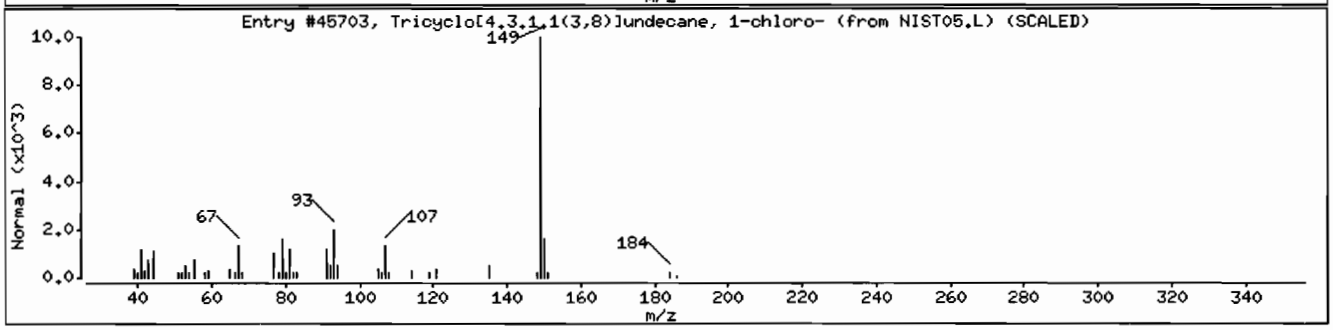
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phthalic acid, monocyclohexyl ester	7517-36-4	NIST05.L	90508	60	C14H16O4	248
Phthalic acid, butyl neopentyl ester	1000309-03-7	NIST05.L	119670	55	C17H24O4	292
Tricyclo[4.3.1.1(3,8)]undecane, 1-chloro	27011-46-7	NIST05.L	45703	50	C11H17Cl	184









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

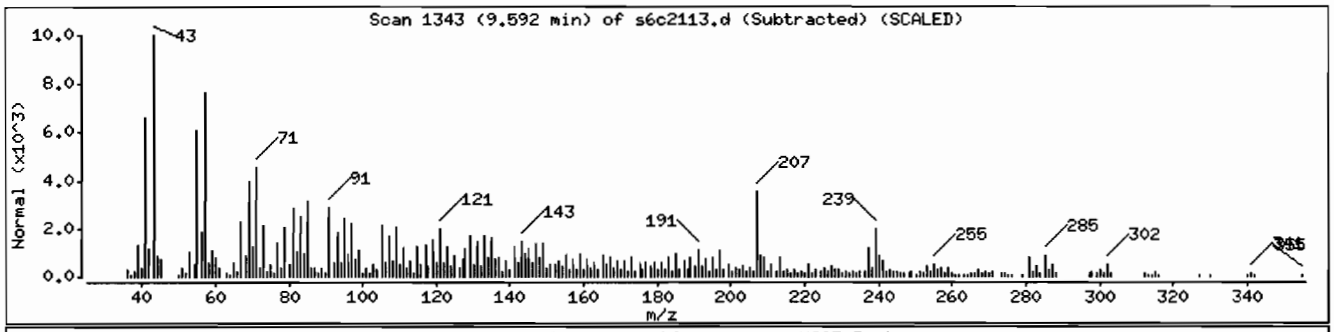
Volume Injected (uL): 0.5

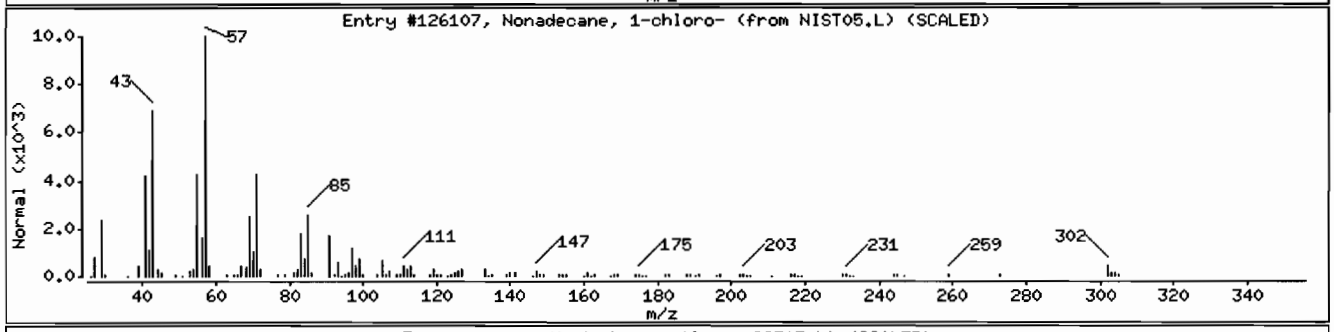
Operator: nag1

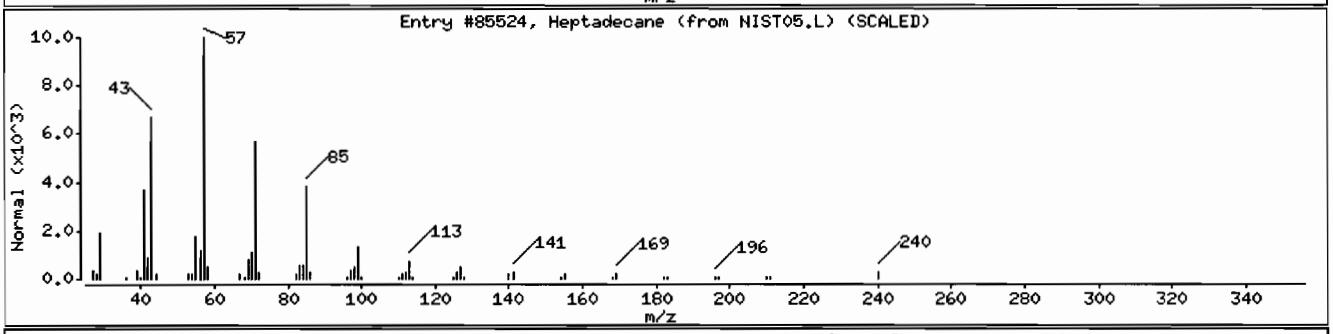
Column phase: J&W DB-5MS

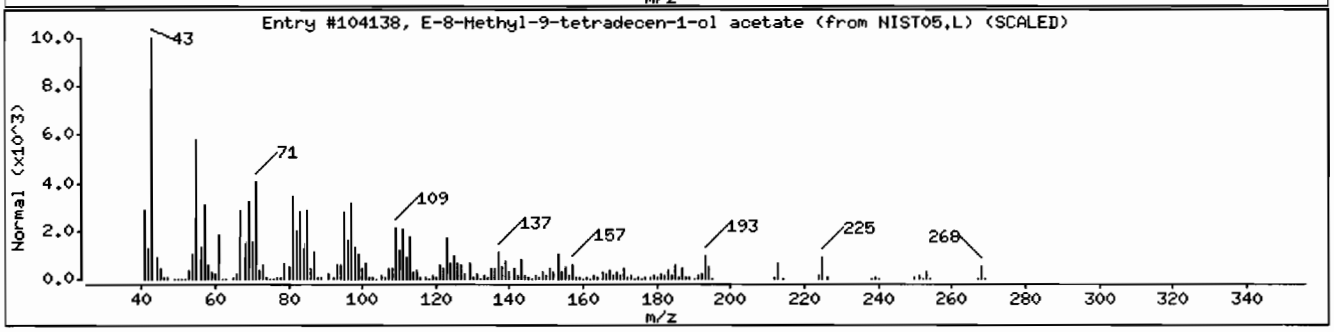
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	86	C19H39Cl	302
Heptadecane	629-78-7	NIST05.L	85524	68	C17H36	240
E-8-Methyl-9-tetradecen-1-ol acetate	1000130-81-4	NIST05.L	104138	64	C17H32O2	268









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

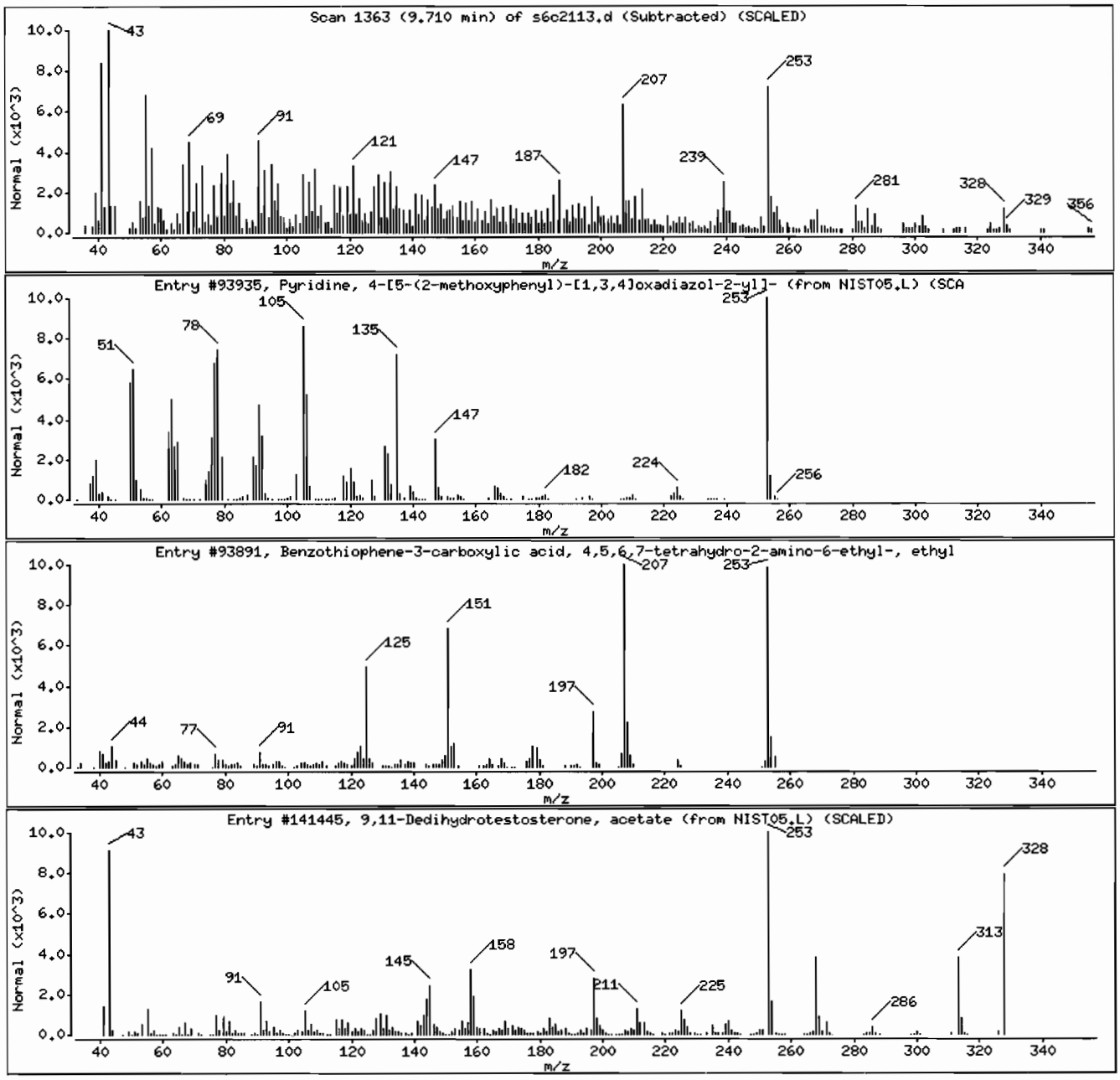
Client ID: RE36-10-8292 Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVHI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine, 4-[5-(2-methoxyphenyl)-[1,3,4]	1000303-05-9	NIST05.L	93935	90	C14H11N3O2	253
Benzothiophene-3-carboxylic acid, 4,5,6,	329222-94-8	NIST05.L	93891	55	C13H19NO2S	253
9,11-Dedihydrotestosterone, acetate	33644-98-3	NIST05.L	141445	53	C21H28O3	328



Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

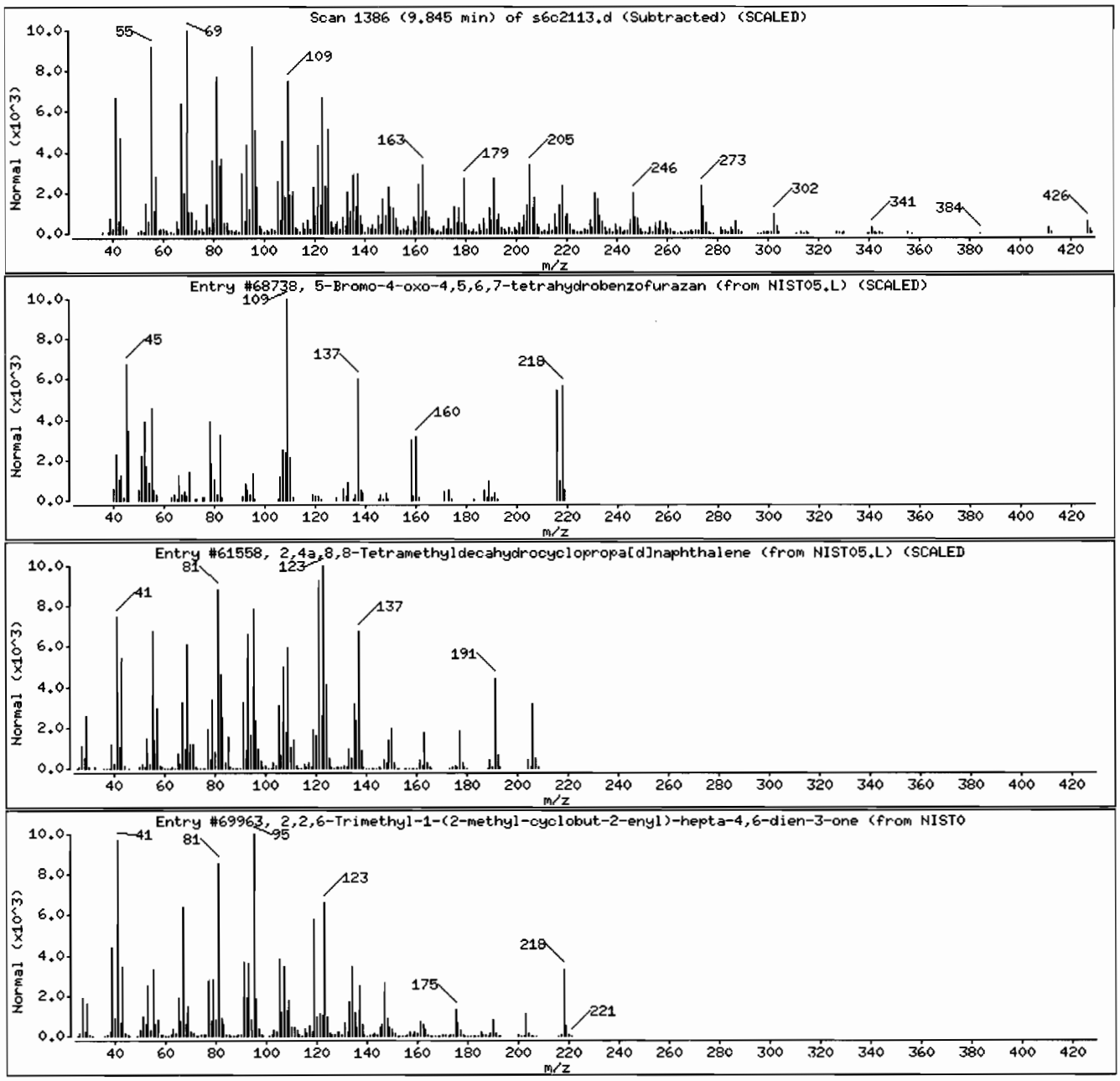
Client ID: RE36-10-8292 Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVH|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	90	C6H5BrN2O2	216
2,4a,8,8-Tetramethyldecahydrocyclopropa[	74022-04-1	NIST05.L	61558	83	C15H26	206
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	60	C15H22O	218



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Date : 21-MAR-2010 20:12

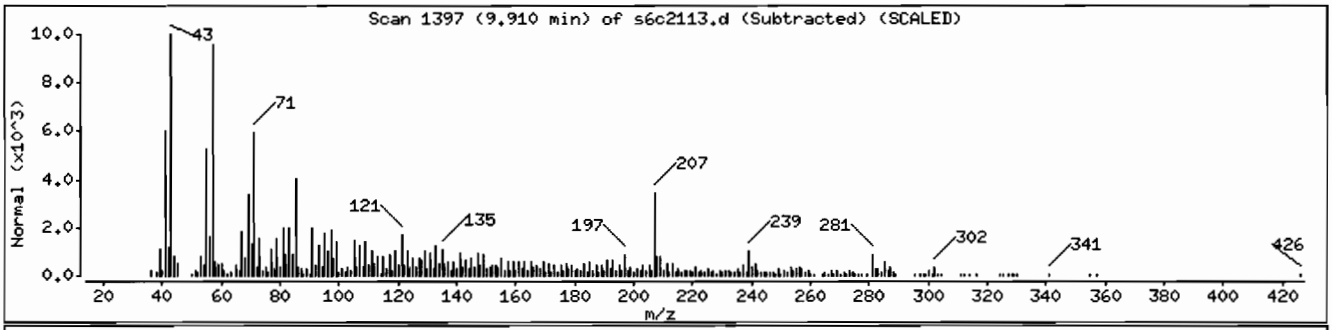
Client ID: RE36-10-8292 Instrument: MSD6.i

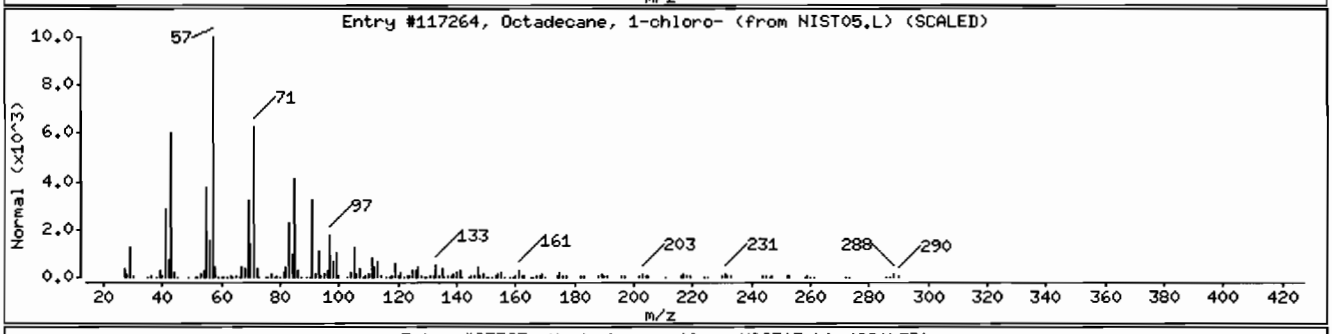
Sample Info: |248517001|963133|1|SVM|1|LANL

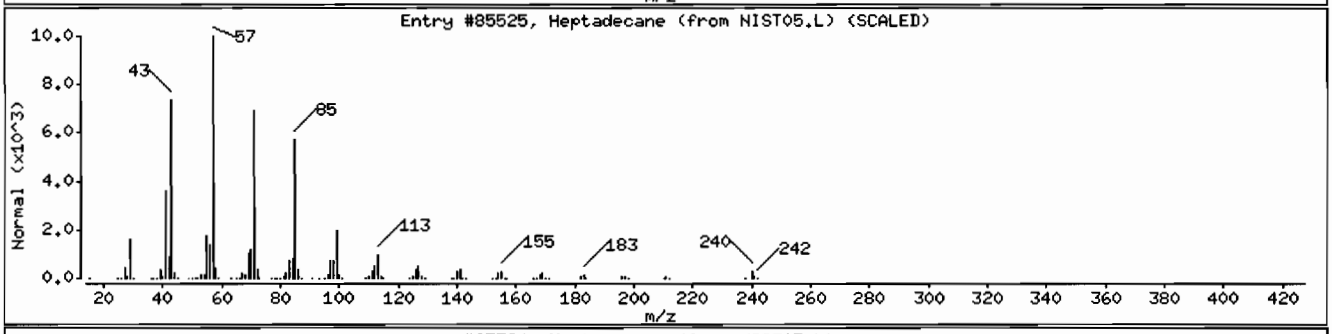
Volume Injected (uL): 0.5 Operator: nag1

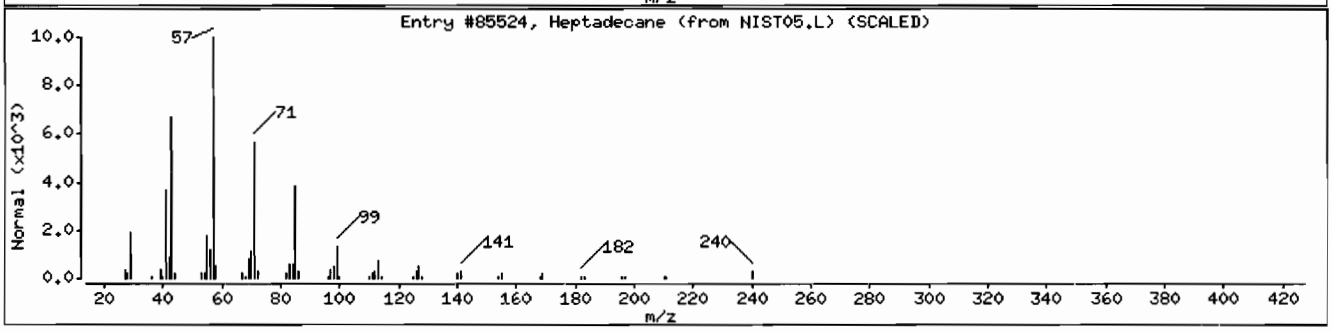
Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117264	95	C18H37Cl	288
Heptadecane	629-78-7	NIST05.L	85525	95	C17H36	240
Heptadecane	629-78-7	NIST05.L	85524	92	C17H36	240









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Date : 21-MAR-2010 20:12

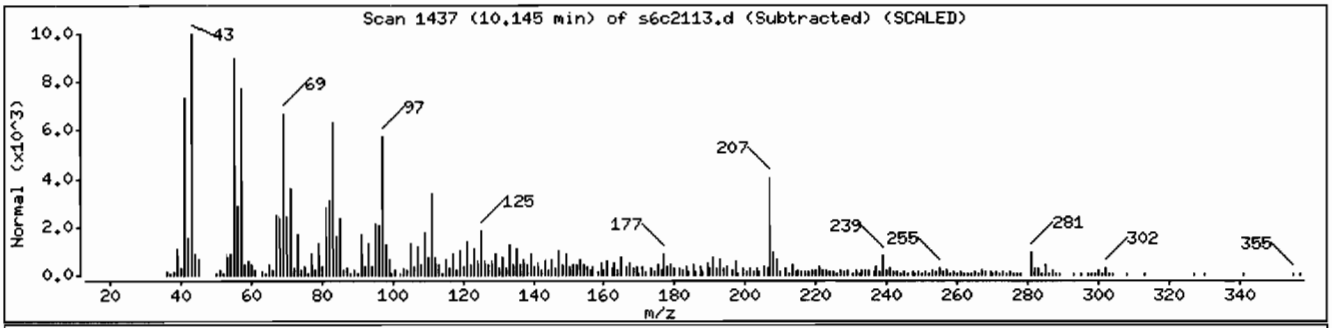
Client ID: RE36-10-8292 Instrument: MSD6.i

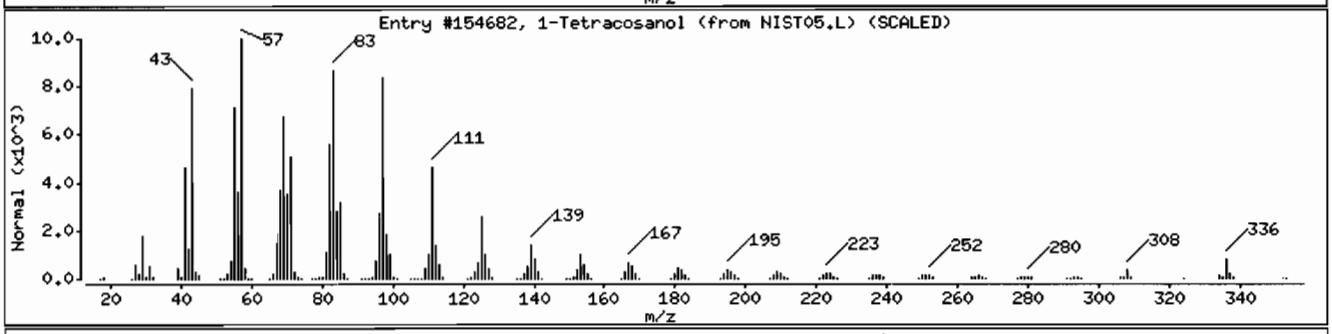
Sample Info: 1248517001|963133|1|SVM|1|LANL

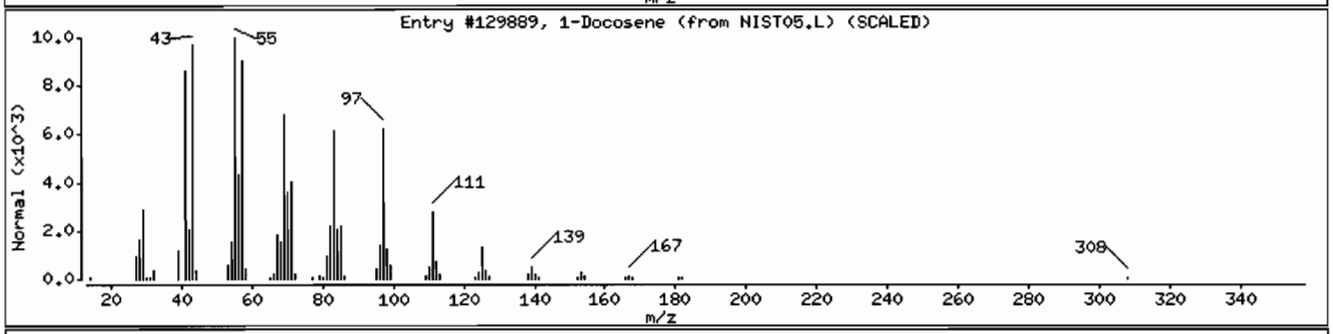
Volume Injected (uL): 0.5 Operator: nag1

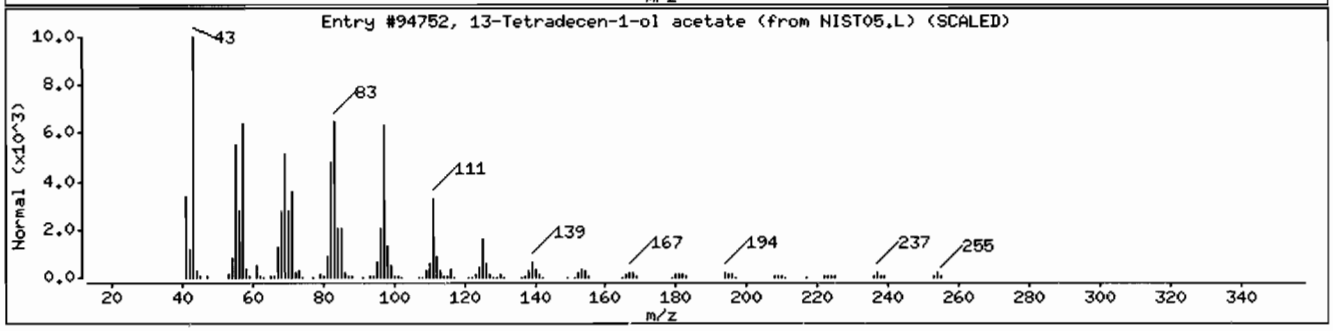
Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Tetracosanol	506-51-4	NIST05.L	154682	78	C24H500	354
1-Docosene	1599-67-3	NIST05.L	129889	60	C22H44	308
13-Tetradecen-1-ol acetate	56221-91-1	NIST05.L	94752	58	C16H3002	254









Data File: /chem/MSD6.i/s032110.b/s6c2113.d

Date : 21-MAR-2010 20:12

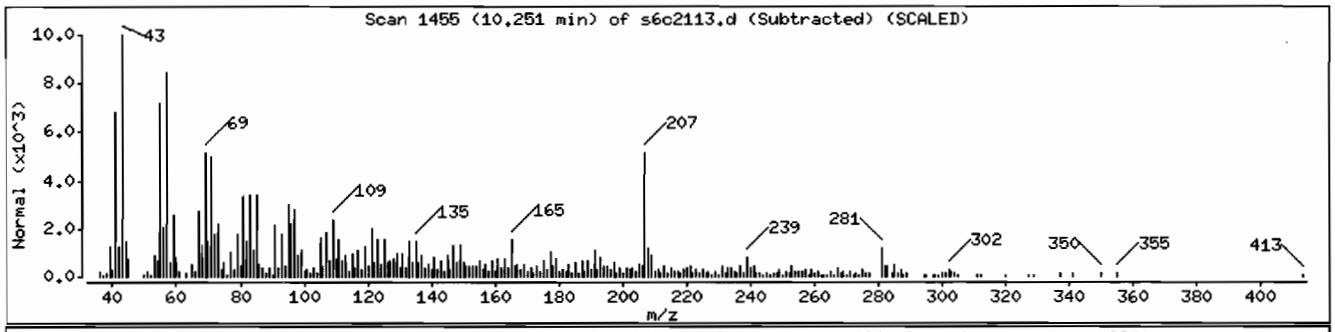
Client ID: RE36-10-8292 Instrument: MSD6.i

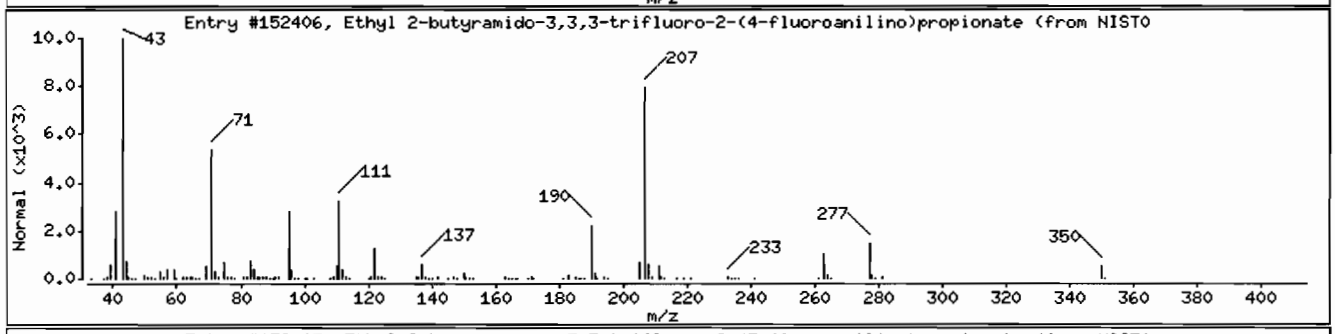
Sample Info: |248517001|963133|1|SVM|1|LANL

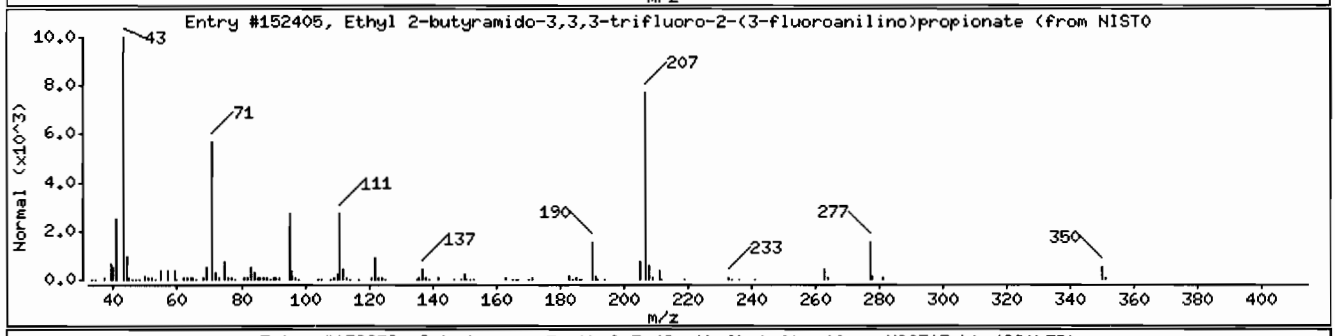
Volume Injected (uL): 0.5 Operator: nag1

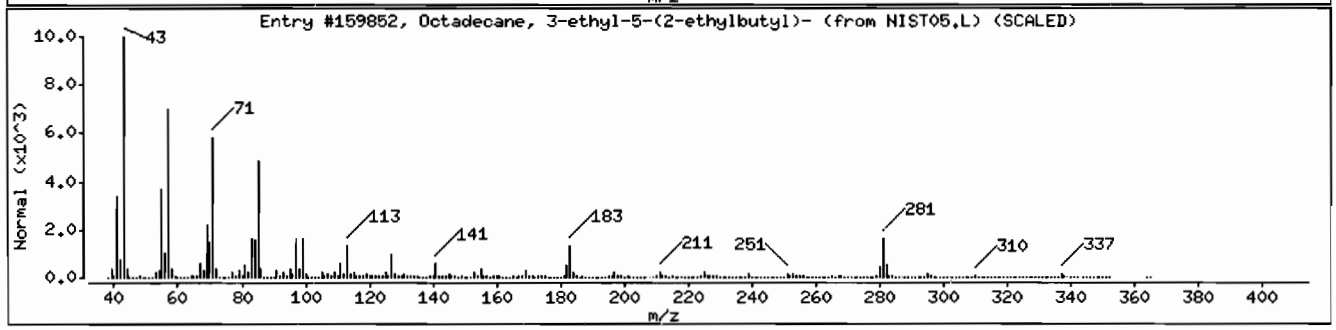
Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethyl 2-butyramido-3,3,3-trifluoro-2-(4-	1000224-16-2	NIST05.L	152406	41	C15H18F4N2O3	350
Ethyl 2-butyramido-3,3,3-trifluoro-2-(3-	1000224-16-1	NIST05.L	152405	38	C15H18F4N2O3	350
Octadecane, 3-ethyl-5-(2-ethylbutyl)-	55282-12-7	NIST05.L	159852	30	C26H54	366









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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

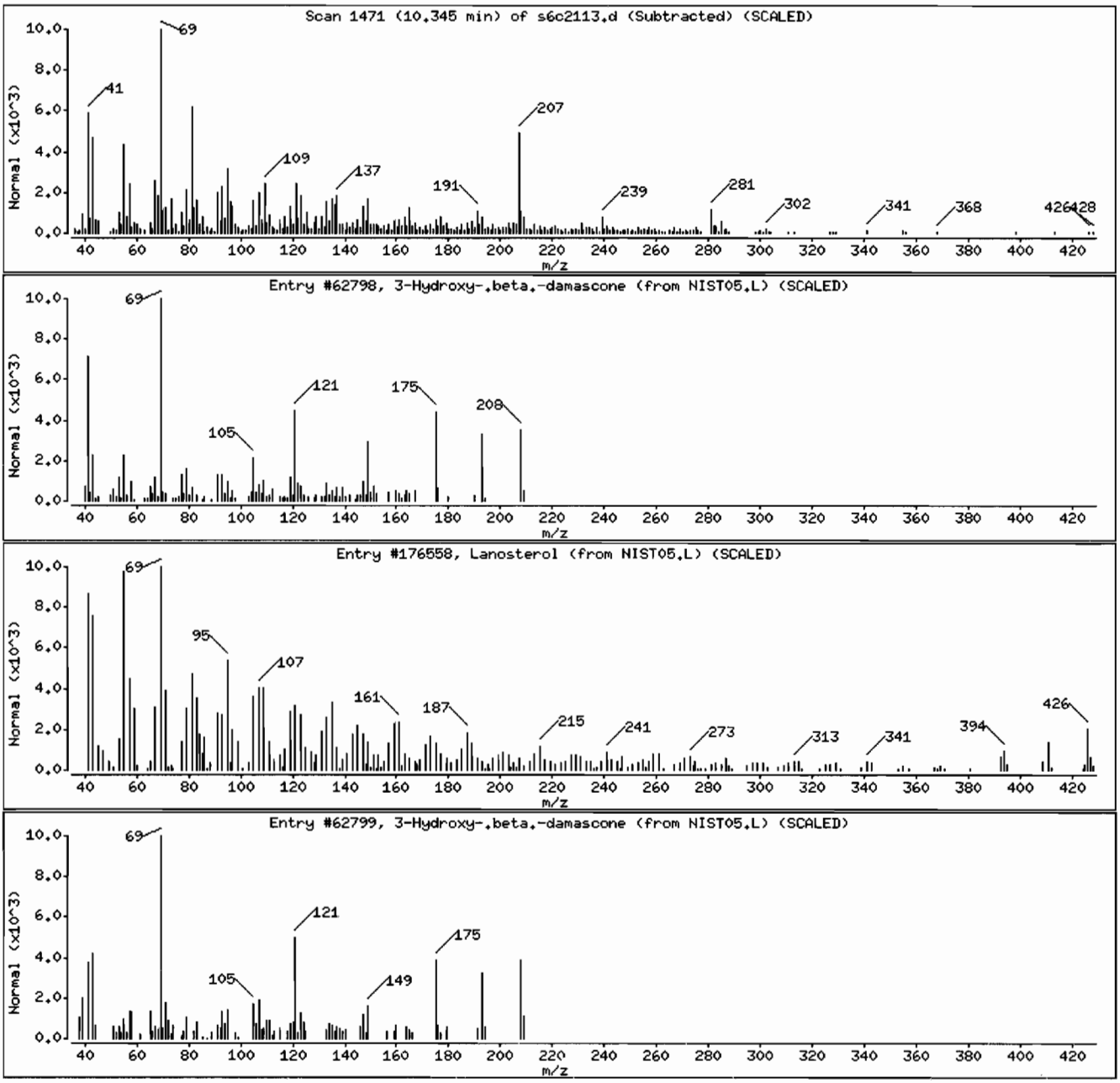
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Hydroxy-.beta.-damascone	1000314-35-7	NIST05.L	62798	35	C13H2002	208
Lanosterol	79-63-0	NIST05.L	176558	35	C30H500	426
3-Hydroxy-.beta.-damascone	102488-09-5	NIST05.L	62799	20	C13H2002	208



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Date : 21-MAR-2010 20:12

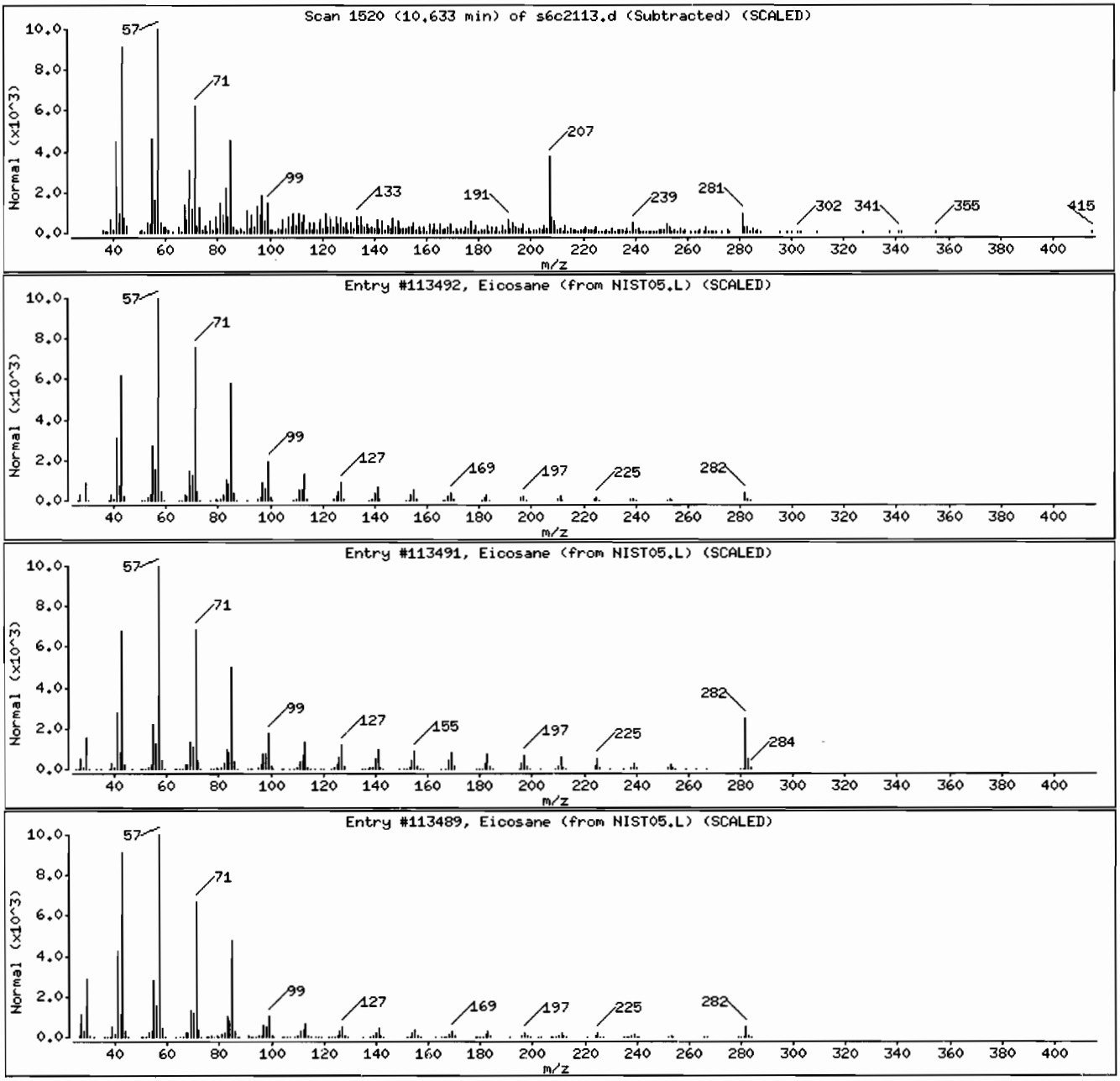
Client ID: RE36-10-8292 Instrument: MSD6.i

Sample Info: 1248517001|963133|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113492	95	C20H42	282
Eicosane	112-95-8	NIST05.L	113491	91	C20H42	282
Eicosane	112-95-8	NIST05.L	113489	90	C20H42	282



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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

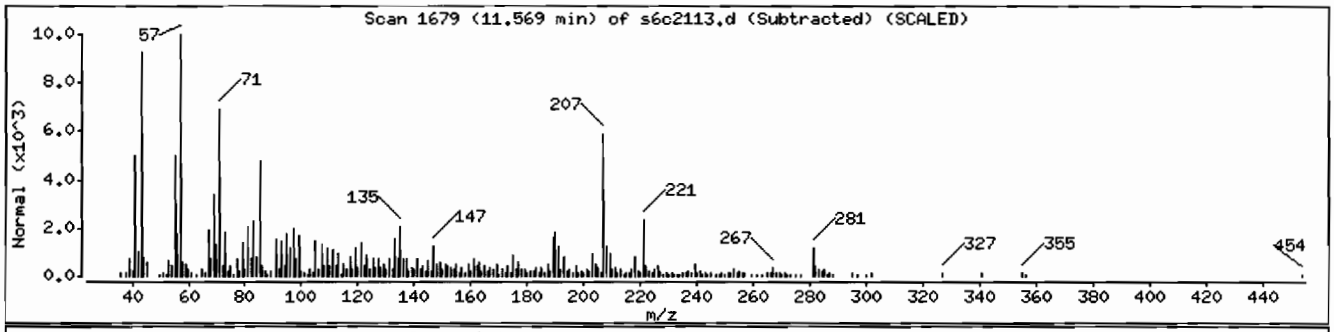
Volume Injected (uL): 0.5

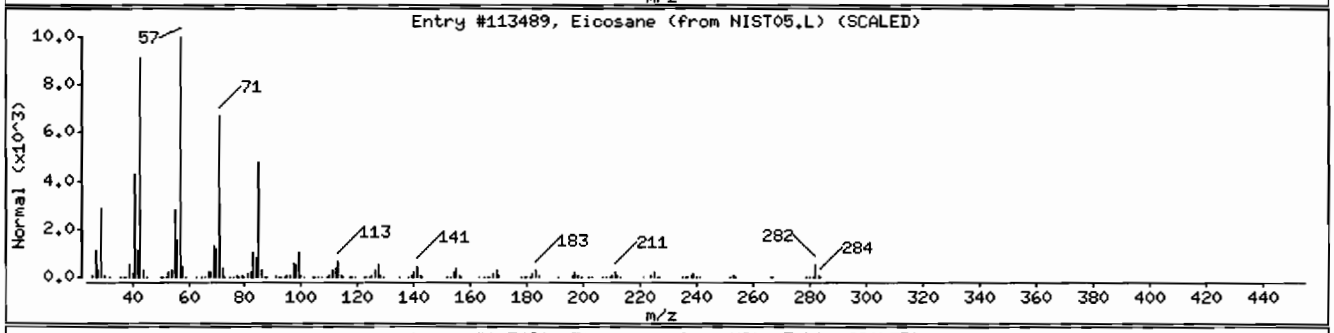
Operator: nag1

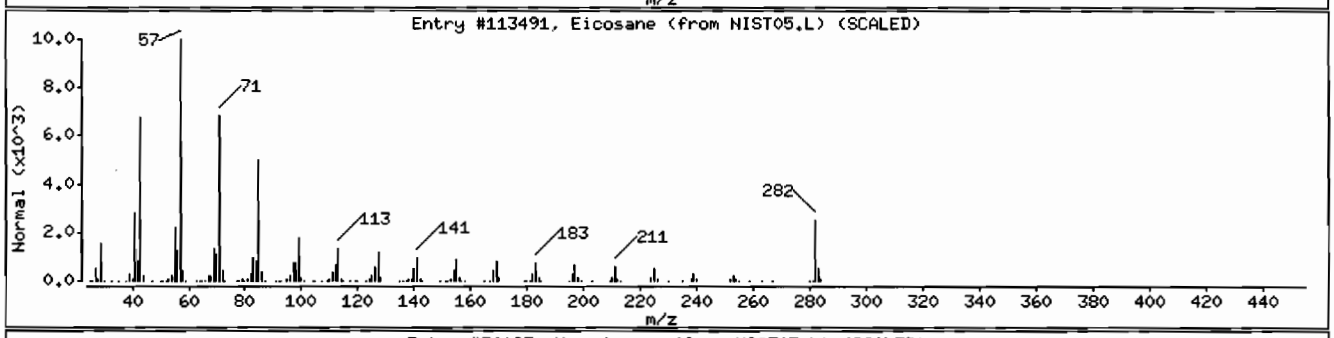
Column phase: J&W DB-5MS

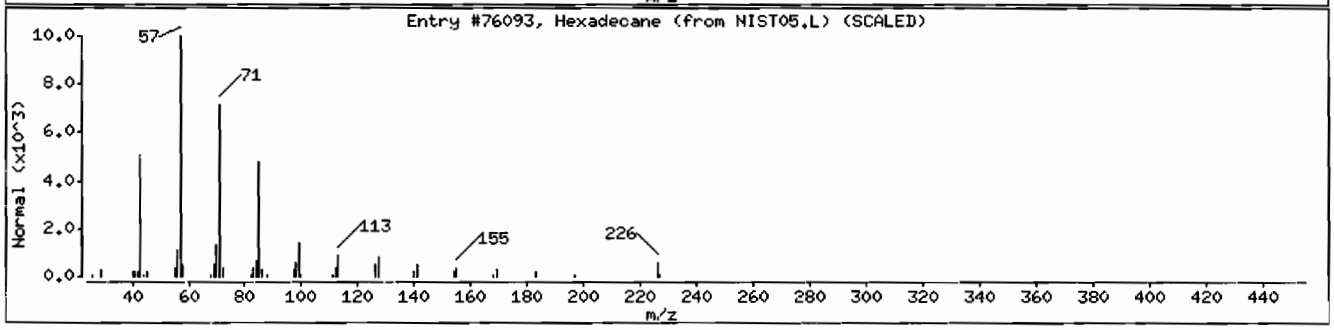
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	95	C20H42	282
Eicosane	112-95-8	NIST05.L	113491	93	C20H42	282
Hexadecane	544-76-3	NIST05.L	76093	93	C16H34	226









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Date : 21-MAR-2010 20:12

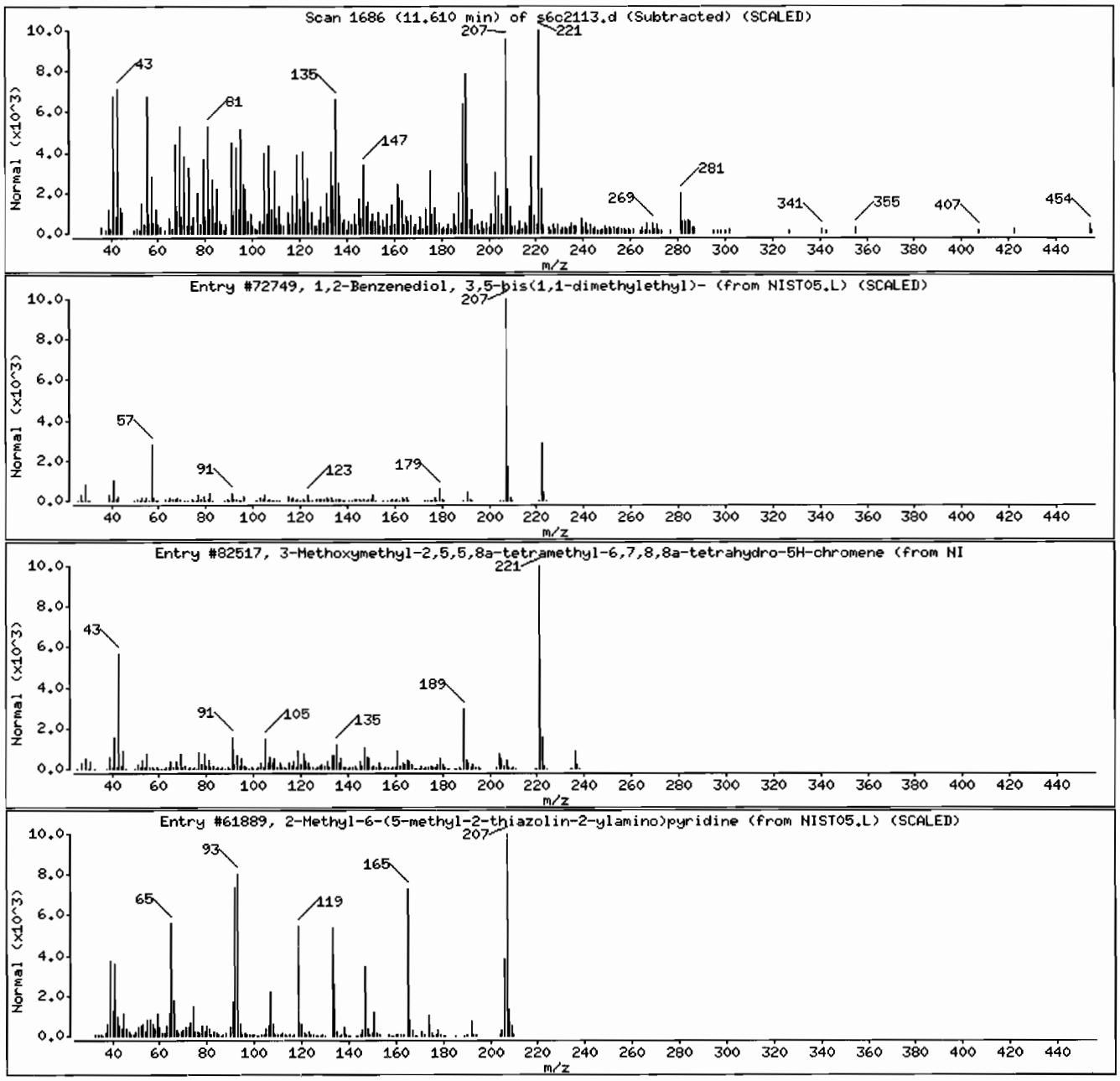
Client ID: RE36-10-8292 Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Benzenediol, 3,5-bis(1,1-dimethyleth	1020-31-1	NIST05.L	72749	35	C14H22O2	222
3-Methoxymethyl-2,5,5,8a-tetramethyl-6,7	64201-73-6	NIST05.L	82517	30	C15H24O2	236
2-Methyl-6-(5-methyl-2-thiazolin-2-ylami	339352-50-0	NIST05.L	61889	30	C10H13N3S	207



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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

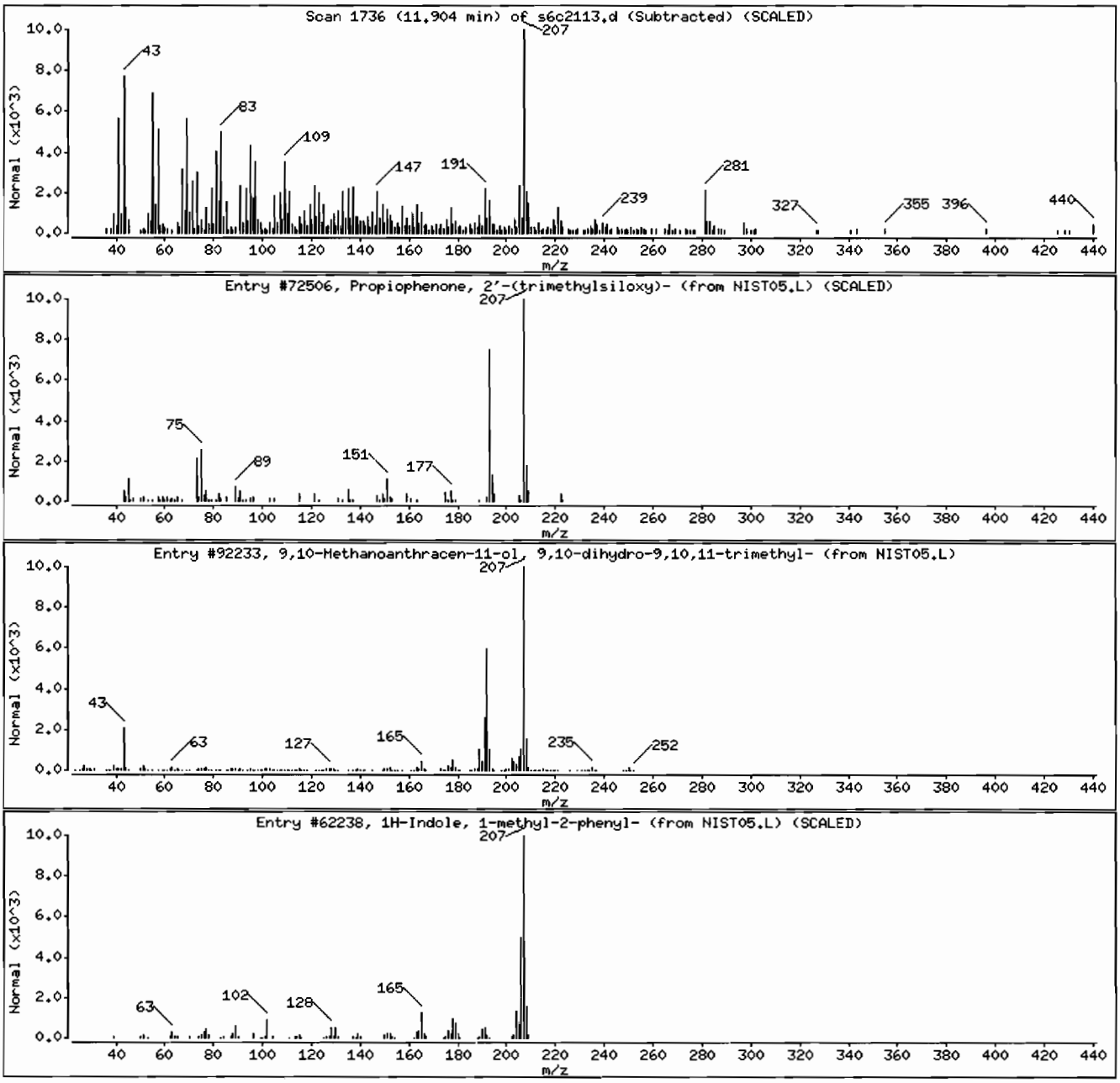
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propiophenone, 2'-(trimethylsiloxy)-	33342-87-9	NIST05.L	72506	38	C12H18O2Si	222
9,10-Methanoanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	38	C18H18O	250
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62238	30	C15H13N	207



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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

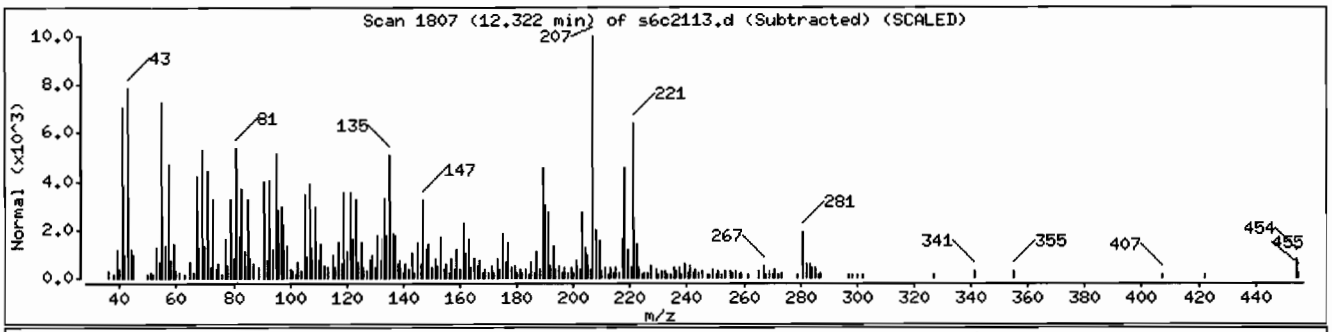
Volume Injected (uL): 0.5

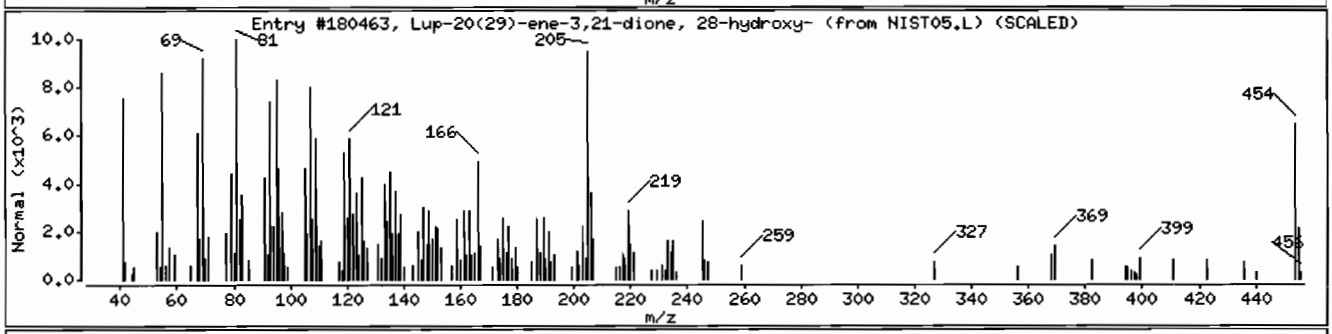
Operator: nag1

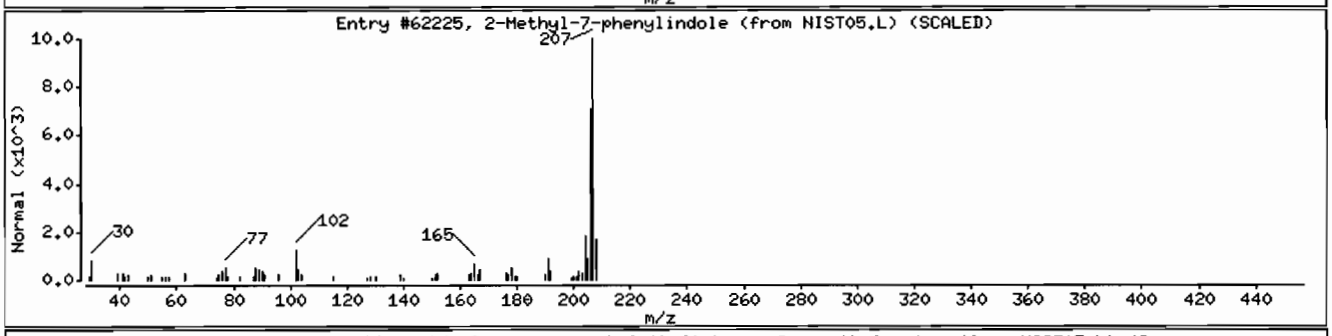
Column phase: J&W DB-5MS

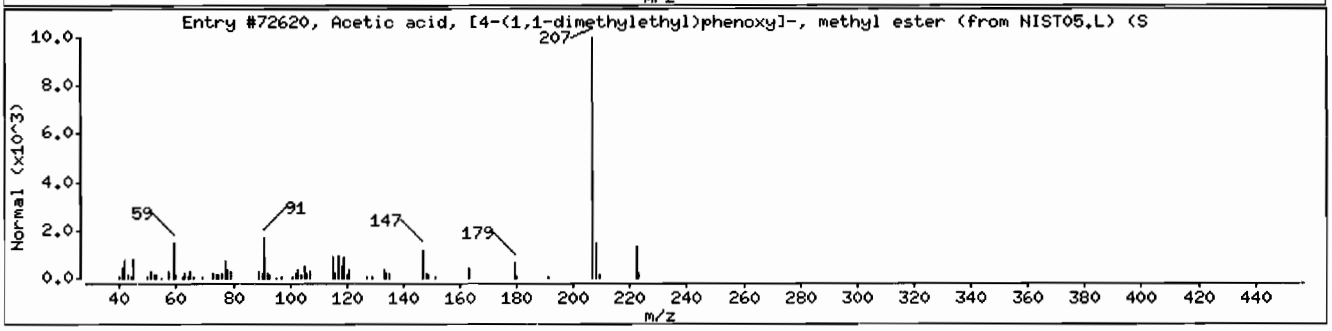
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Lup-20(29)-ene-3,21-dione, 28-hydroxy-	13952-73-3	NIST05.L	180463	44	C30H46O3	454
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	25	C15H13N	207
Acetic acid, [4-(1,1-dimethylethyl)pheno	88530-52-3	NIST05.L	72620	25	C13H18O3	222









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Date : 21-MAR-2010 20:12

Client ID: RE36-10-8292

Instrument: MSD6.i

Sample Info: 1248517001|963133|1|SVM|1|LANL

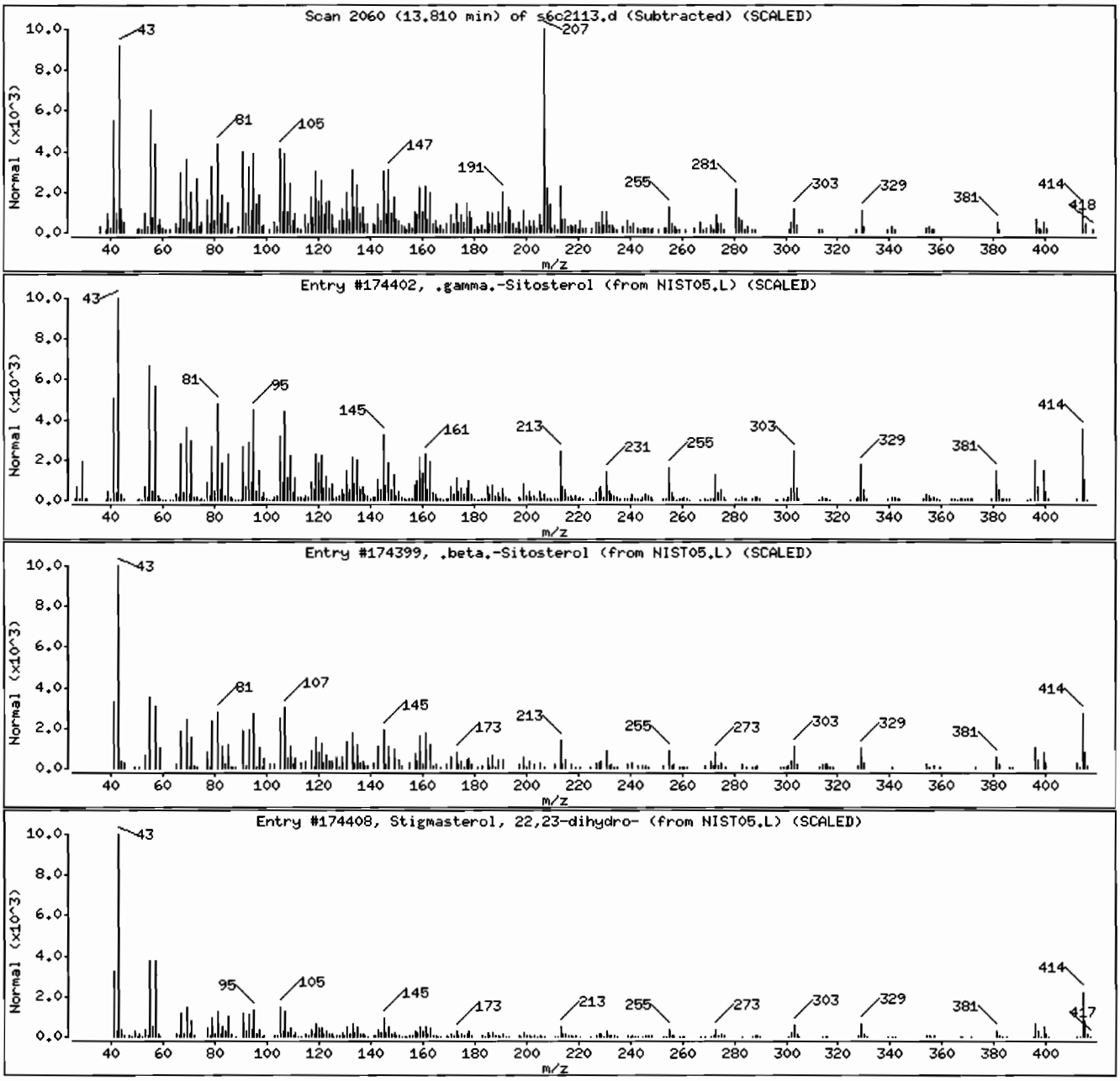
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	95	C29H500	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	95	C29H500	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	91	C29H500	414



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Date : 21-MAR-2010 20:12

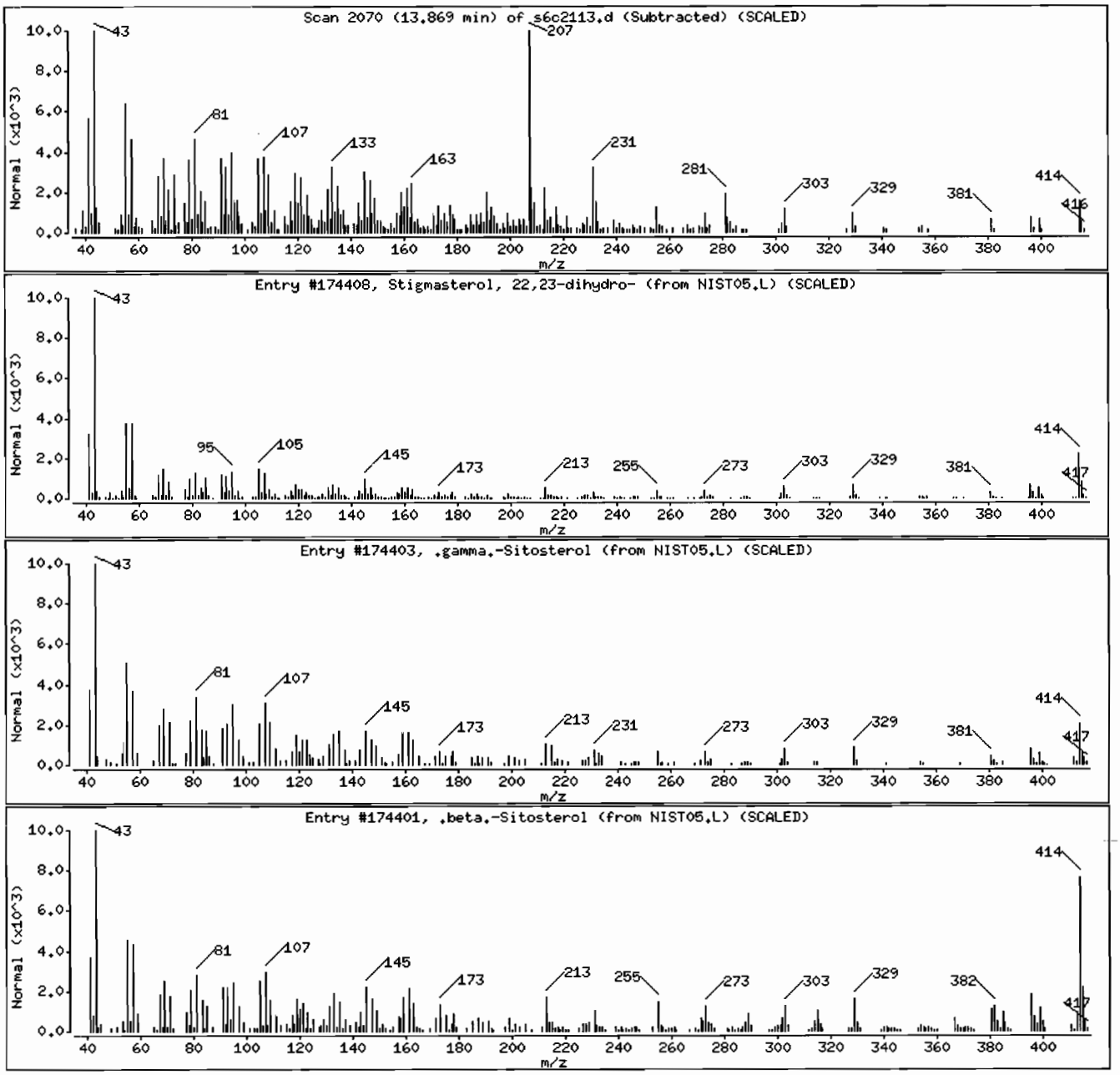
Client ID: RE36-10-8292 Instrument: MSD6.i

Sample Info: |248517001|963133|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	90	C29H500	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	50	C29H500	414
.beta.-Sitosterol	83-46-5	NIST05.L	174401	43	C29H500	414



Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 22-Mar-2010 16:37

Calibration History

Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Start Cal Date: 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
16-MAR-2010 09:18	MEGA	/chem/MSD6.i/s031610.b/s6c1603.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 02:32	NEV	/chem/MSD6.i/s031610.b/s6c1640.d
16-MAR-2010 22:16	HEX	/chem/MSD6.i/s031610.b/s6c1629.d
16-MAR-2010 19:27	PEST	/chem/MSD6.i/s031610.b/s6c1622.d
16-MAR-2010 16:42	AP12	/chem/MSD6.i/s031610.b/s6c1615.d
16-MAR-2010 09:47	MEGA	/chem/MSD6.i/s031610.b/s6c1604.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 02:55	NEV	/chem/MSD6.i/s031610.b/s6c1641.d
16-MAR-2010 22:40	HEX	/chem/MSD6.i/s031610.b/s6c1630.d
16-MAR-2010 19:51	PEST	/chem/MSD6.i/s031610.b/s6c1623.d
16-MAR-2010 17:06	AP12	/chem/MSD6.i/s031610.b/s6c1616.d
16-MAR-2010 10:17	MEGA	/chem/MSD6.i/s031610.b/s6c1605.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 03:19	NEV	/chem/MSD6.i/s031610.b/s6c1642.d
16-MAR-2010 23:05	HEX	/chem/MSD6.i/s031610.b/s6c1631.d
16-MAR-2010 20:16	PEST	/chem/MSD6.i/s031610.b/s6c1624.d
16-MAR-2010 17:30	AP12	/chem/MSD6.i/s031610.b/s6c1617.d
16-MAR-2010 10:48	MEGA	/chem/MSD6.i/s031610.b/s6c1606.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 03:42	NEV	/chem/MSD6.i/s031610.b/s6c1643.d
16-MAR-2010 23:30	HEX	/chem/MSD6.i/s031610.b/s6c1632.d
16-MAR-2010 20:39	PEST	/chem/MSD6.i/s031610.b/s6c1625.d
16-MAR-2010 17:53	AP12	/chem/MSD6.i/s031610.b/s6c1618.d
16-MAR-2010 11:18	MEGA	/chem/MSD6.i/s031610.b/s6c1607.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 04:05	NEV	/chem/MSD6.i/s031610.b/s6c1644.d
16-MAR-2010 23:53	HEX	/chem/MSD6.i/s031610.b/s6c1633.d
16-MAR-2010 21:04	PEST	/chem/MSD6.i/s031610.b/s6c1626.d
16-MAR-2010 18:16	AP12	/chem/MSD6.i/s031610.b/s6c1619.d
16-MAR-2010 11:48	MEGA	/chem/MSD6.i/s031610.b/s6c1608.d
Cal Level: 7 , Cal Amount: 100.00000		

17-MAR-2010 04:28	NEV	/chem/MSD6.i/s031610.b/s6c1645.d
17-MAR-2010 00:17	HEX	/chem/MSD6.i/s031610.b/s6c1634.d
16-MAR-2010 21:29	PEST	/chem/MSD6.i/s031610.b/s6c1627.d
16-MAR-2010 18:40	AP12	/chem/MSD6.i/s031610.b/s6c1620.d
16-MAR-2010 12:18	MEGA	/chem/MSD6.i/s031610.b/s6c1609.d

Cal Level: 8 , Cal Amount: 120.00000

17-MAR-2010 04:51	NEV	/chem/MSD6.i/s031610.b/s6c1646.d
16-MAR-2010 21:52	PEST	/chem/MSD6.i/s031610.b/s6c1628.d
16-MAR-2010 19:04	AP12	/chem/MSD6.i/s031610.b/s6c1621.d
16-MAR-2010 12:48	MEGA	/chem/MSD6.i/s031610.b/s6c1610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

21-MAR-2010 17:25	AP12	/chem/MSD6.i/s032110.b/s6c2106.d

Ccal Level: 4 , Ccal Amount: 40.0

21-MAR-2010 16:55	MEGA	/chem/MSD6.i/s032110.b/s6c2105.d

Ccal Level: 4 , Ccal Amount: 40.0

21-MAR-2010 09:45	MEGA	/chem/MSD6.i/s032110.b/s6c2103.d

Ccal Level: 4 , Ccal Amount: 40.0

21-MAR-2010 09:12	MEGA	/chem/MSD6.i/s032110.b/s6c2102.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Cal Date : 22-Mar-2010 16:37 jen00986

Calibration File Names:
Level 1: /chem/MSD6.i/s031610.b/s6c1603.d
Level 2: /chem/MSD6.i/s031610.b/s6c1640.d
Level 3: /chem/MSD6.i/s031610.b/s6c1641.d
Level 4: /chem/MSD6.i/s031610.b/s6c1642.d
Level 5: /chem/MSD6.i/s031610.b/s6c1643.d
Level 6: /chem/MSD6.i/s031610.b/s6c1644.d
Level 7: /chem/MSD6.i/s031610.b/s6c1645.d
Level 8: /chem/MSD6.i/s031610.b/s6c1646.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.81792	0.82056	0.78930	0.79192	0.76046					
	0.72590	0.72296					AVRG		0.77557		5.19380
2 Pyridine	+++++	1.11606	1.14524	1.09549	1.10183	1.07067					
	1.05148	1.15602					AVRG		1.10526		3.40288
4 Aniline	+++++	0.72133	0.70476	0.66890	0.68894	0.64499					
	0.62930	0.62826					AVRG		0.66950		5.53075
209 Benzaldehyde	+++++	1.13309	1.08471	1.00392	0.97767	0.86499					
	0.83244	0.82430					AVRG		0.96016		12.85923
6 Phenol	+++++	1.61272	1.56254	1.44105	1.45641	1.36160					
	1.30346	1.28275					AVRG		1.43150		8.74973

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	1.19254	1.18236	1.09028	1.09625	1.00058					
	0.95191	0.93692					AVRG		1.06440		9.77817
8 2-Chlorophenol	+++++	1.26962	1.28222	1.17814	1.18825	1.10696					
	1.06189	1.06261					AVRG		1.16424		7.83127
203 n-Decane	+++++	1.96779	1.93918	1.70280	1.68456	1.47743					
	1.37227	+++++					AVRG		1.69067		14.13608
9 1,3-Dichlorobenzene	+++++	1.44879	1.44947	1.30584	1.30842	1.19897					
	1.15341	1.11325					AVRG		1.28259		10.51030
11 1,4-Dichlorobenzene	+++++	1.42133	1.40639	1.25708	1.27799	1.16100					
	1.09866	1.09543					AVRG		1.24541		10.83313
12 Benzyl alcohol	+++++	0.85394	0.86245	0.80492	0.83695	0.79588					
	0.79193	0.78165					AVRG		0.81825		3.95576
13 1,2-Dichlorobenzene	+++++	1.34498	1.29593	1.11046	1.13364	1.03705					
	0.99051	0.98974					AVRG		1.12890		12.62648
14 bis(2-Chloroisopropyl)ether	+++++	2.53022	2.53492	2.29878	2.31844	2.11439					
	1.96542	1.89769					AVRG		2.23712		11.38315
15 o-Cresol	+++++	1.01324	0.99090	0.86659	0.89293	0.83096					
	0.81771	0.80283					AVRG		0.88788		9.44602

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.46180	1.39429	1.25730	1.25356	1.14795					
	1.11097	1.11114					AVRG		1.24814		11.07970
17 N-Nitrosodipropylamine	+++++	1.04632	1.03866	0.98744	1.01348	0.95067					
	0.89995	0.90020					AVRG		0.97668		6.28044
18 m,p-Cresols	+++++	1.32601	1.35004	1.26915	1.31796	1.25447					
	1.21737	1.21749					AVRG		1.27893		4.16878
19 Hexachloroethane	+++++	0.59901	0.59645	0.55146	0.55577	0.50879					
	0.48359	0.46860					AVRG		0.53767		9.68345
21 Nitrobenzene	+++++	0.41616	0.40868	0.35909	0.36547	0.32858					
	0.30203	0.28967					AVRG		0.35281		13.92765
22 Isophorone	+++++	0.76756	0.76141	0.67508	0.70486	0.64538					
	0.60504	0.57972					AVRG		0.67701		10.74431
23 2-Nitrophenol	+++++	0.18755	0.16925	0.15697	0.15800	0.13948					
	0.13113	0.12806					AVRG		0.15292		14.07952
24 2,4-Dimethylphenol	+++++	128503	217256	416723	533570	827995					
	966250	+++++					WLINR	-0.14975	0.25299		0.99406
25 bis(2-Chloroethoxy)methane	+++++	0.43560	0.42444	0.37400	0.37627	0.33980					
	0.32172	0.30463					AVRG		0.36806		13.49875

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.28833	0.28887	0.25784	0.26048	0.23660					
	0.22233	0.21321					AVRG		0.25252		11.88589
27 Benzoic acid	+++++	+++++	0.15188	0.16162	0.20350	0.20115					
	0.19885	0.20819					AVRG		0.18753		12.92549
28 1,2,4-Trichlorobenzene	+++++	0.33900	0.33884	0.29761	0.29991	0.26567					
	0.24757	0.23474					AVRG		0.28905		14.39082
30 Naphthalene	1.17741	1.03786	1.00687	0.84879	0.85336	+++++					
	+++++	+++++					AVRG		0.98486		14.01214
204 alpha-Terpineol	+++++	0.33608	0.33453	0.29084	0.29286	0.26114					
	0.24448	0.23009					AVRG		0.28429		14.63166
31 4-Chloroaniline	+++++	0.47746	0.49291	0.44934	0.45825	0.40866					
	0.38534	0.36929					AVRG		0.43446		10.86864
189 Caprolactam	+++++	0.10378	0.10570	0.09999	0.09912	0.09284					
	0.09092	0.09292					AVRG		0.09790		5.90407
32 Hexachlorobutadiene	+++++	0.19255	0.18969	0.16950	0.16919	0.15167					
	0.14051	0.13534					AVRG		0.16407		13.75956
33 4-Chloro-3-methylphenol	+++++	0.32043	0.30822	0.27683	0.28548	0.25715					
	0.24213	0.23028					AVRG		0.27436		12.15912

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INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.72925	0.65481	0.63621	0.55294	0.56663	0.49402					
	+++++	+++++					AVRG		0.60564		13.89123
35 1-Methylnaphthalene	0.70436	0.66500	0.61927	0.53454	0.53753	0.47391					
	+++++	+++++					AVRG		0.58910		14.96497
36 Hexachlorocyclopentadiene	+++++	0.25218	0.24426	0.26357	0.23616	0.19125					
	0.18872	+++++					AVRG		0.22936		13.87544
208 1,1'-Biphenyl	+++++	1.34441	1.27102	1.12196	1.11758	1.01987					
	0.96643	0.94136					AVRG		1.11180		13.65187
205 2,3-Dichloroaniline	+++++	0.61240	0.60292	0.54053	0.53714	0.47736					
	0.45417	0.44760					AVRG		0.52459		12.87597
37 2,4,6-Trichlorophenol	+++++	0.38108	0.37793	0.32193	0.36706	0.30741					
	0.28219	0.30558					AVRG		0.33474		11.93741
38 2,4,5-Trichlorophenol	+++++	0.37129	0.37911	0.38732	0.34179	0.35266					
	0.34748	0.30293					AVRG		0.35465		8.00704
40 2-Chloronaphthalene	1.19201	1.10470	1.08122	0.97966	0.96619	0.86532					
	0.80529	0.79483					AVRG		0.97365		14.96311
42 o-Nitroaniline	+++++	0.36102	0.36661	0.34980	0.35607	0.33160					
	0.31294	0.31605					AVRG		0.34201		6.37491

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.23455	0.26751	0.26609	0.27182	0.25408					
	0.24489	0.23973					AVRG		0.25409		5.81743
43 Dimethylphthalate	+++++	1.30419	1.28387	1.15700	1.15779	1.04419					
	0.99525	0.96796					AVRG		1.13004		11.83407
44 2,6-Dinitrotoluene	+++++	0.30420	0.29865	0.27654	0.28158	0.25526					
	0.23916	0.23864					AVRG		0.27058		9.91397
45 Acenaphthylene	1.85647	1.73104	1.67326	1.48789	1.47507	1.32790					
	1.24637	+++++					AVRG		1.54257		14.31335
47 Acenaphthene	1.28627	1.05044	1.03429	0.91274	0.90543	+++++					
	+++++	+++++					AVRG		1.03783		14.85478
48 2,4-Dinitrophenol	+++++	+++++	23383	83099	110420	178844					
	226466	280792					LINR	0.14548	0.11086		0.99537
49 Dibenzofuran	+++++	1.49805	1.45690	1.29929	1.28456	1.15301					
	1.08151	1.05151					AVRG		1.26069		13.90416
50 2,4-Dinitrotoluene	+++++	0.36954	0.37982	0.36276	0.37594	0.34784					
	0.32724	0.33221					AVRG		0.35648		5.89787
51 Diethylphthalate	+++++	1.30298	1.28452	1.13974	1.14323	1.01648					
	0.94857	0.91864					AVRG		1.10774		13.84255

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.20176	0.19292	0.19251	0.19939	0.18710					
	0.18356	0.18929					AVRG		0.19236		3.37304
53 Fluorene	1.38576	1.24024	1.19555	1.05553	1.05905	0.97044					
	0.91808	+++++					AVRG		1.11781		14.68974
54 4-Chlorophenylphenylether	+++++	0.61669	0.60649	0.55132	0.54613	0.49714					
	0.46826	0.46745					AVRG		0.53621		11.44943
55 2-Methyl-4,6-dinitrophenol	+++++	19709	42715	133111	183242	300925					
	377022	458868					LINR	0.11116	0.10470		0.99841
56 p-Nitroaniline	+++++	0.18685	0.19668	0.22186	0.22558	0.21140					
	0.20310	0.21295					AVRG		0.20835		6.60344
133 Diphenylamine	+++++	0.59755	0.58488	0.51490	0.52719	0.49057					
	0.45816	0.45986					AVRG		0.51902		10.72829
58 1,2-Diphenylhydrazine	+++++	0.81379	0.80943	0.71643	0.71366	0.64914					
	0.59712	0.58414					AVRG		0.69767		13.33528
59 Tributylphosphate	+++++	1.48756	1.31745	1.19079	1.17530	1.07632					
	0.98767	+++++					AVRG		1.20585		14.71177
61 4-Bromophenylphenylether	+++++	0.18913	0.19414	0.17251	0.17518	0.16699					
	0.15758	0.16024					AVRG		0.17368		7.95612

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17986	0.18314	0.16397	0.16914	0.16087					
	0.15325	0.15146					AVRG		0.16595		7.37947
207 Atrazine	+++++	0.05303	0.05040	0.04601	0.04433	0.03650					
	+++++	+++++					AVRG		0.04606		13.80997
65 Pentachlorophenol	+++++	0.08594	0.09329	0.09347	0.09827	0.09698					
	0.09437	0.09548					AVRG		0.09397		4.23639
206 n-Octadecane	+++++	0.53452	0.53921	0.46736	0.45674	0.40532					
	+++++	+++++					AVRG		0.48063		11.74926
68 Phenanthrene	1.18955	1.04058	1.01586	0.88259	0.91454	0.80483					
	+++++	+++++					AVRG		0.97466		14.00439
69 Anthracene	1.17774	1.06636	1.01144	0.91703	0.90561	0.81316					
	+++++	+++++					AVRG		0.98189		13.26811
72 Di-n-butylphthalate	+++++	1.28361	1.29174	1.09885	1.06066	0.94298					
	+++++	+++++					AVRG		1.13557		13.23540
76 Fluoranthene	1.20011	1.09187	1.06525	0.96204	0.95592	0.84379					
	0.79997	+++++					AVRG		0.98842		14.28401
77 Benzidine	+++++	0.40621	0.45200	0.39954	0.40216	0.42655					
	0.43042	0.42719					AVRG		0.42058		4.50256

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.35186	1.32429	1.37915	1.14942	1.19852	1.19422					
	1.08124	1.07630					AVRG		1.21938		9.78236
85 Butylbenzylphthalate	+++++	0.60942	0.68418	0.57419	0.59563	0.59071					
	0.53615	0.53958					AVRG		0.58998		8.46660
89 Benzo(a)anthracene	1.23844	1.07586	1.08943	0.99635	1.02654	0.99275					
	0.98276	0.95356					AVRG		1.04446		8.71633
90 3,3'-Dichlorobenzidine	+++++	0.28634	0.34000	0.31737	0.30439	0.29332					
	0.28534	0.28530					AVRG		0.30172		6.84952
92 Chrysene	1.21905	1.11052	1.09284	0.99293	1.00791	0.89389					
	0.83298	0.83097					AVRG		0.99764		14.00287
93 bis(2-Ethylhexyl)phthalate	+++++	0.87792	0.94166	0.75843	0.78894	0.76390					
	0.69996	0.68939					AVRG		0.78860		11.64783
94 Di-n-octylphthalate	+++++	1.50498	1.84996	1.38120	1.53446	1.53965					
	1.35710	1.54699					AVRG		1.53062		10.51568
95 Benzo(b)fluoranthene	1.06453	1.04231	1.18249	1.05565	1.10684	1.12171					
	1.04658	1.07946					AVRG		1.08744		4.38133
96 Benzo(k)fluoranthene	1.13857	1.15145	1.13298	1.00215	1.05846	0.96843					
	0.91790	0.97630					AVRG		1.04328		8.61578

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.91272	0.95091	0.96305	0.93841	0.94477	0.90966					
	0.87668	0.87161					AVRG		0.92098		3.70068
99 Indeno(1,2,3-cd)pyrene	0.82214	0.91774	0.83742	0.89629	0.86445	0.85264					
	0.81655	0.75359					AVRG		0.84510		6.01764
100 Dibenzo(a,h)anthracene	0.65413	0.74504	0.67287	0.73440	0.69759	0.67777					
	0.65411	0.60951					AVRG		0.68068		6.53700
101 Benzo(ghi)perylene	0.72104	0.79945	0.72249	0.76566	0.71838	0.73009					
	0.68866	0.62705					AVRG		0.72160		7.04885
102 1,4-Dioxane	+++++	0.40364	0.39108	0.35833	0.36073	0.32452					
	0.31161	0.30837					AVRG		0.35119		10.77795
103 Methyl methacrylate	+++++	0.21508	0.20768	0.19444	0.19248	0.17684					
	0.16911	0.17292					AVRG		0.18979		9.29691
104 Ethyl methacrylate	+++++	0.94302	0.90271	0.84859	0.85171	0.77200					
	0.73535	0.73626					AVRG		0.82709		9.86302
105 2-Picoline	+++++	1.41751	1.35879	1.23892	1.24366	1.11707					
	1.05418	1.05943					AVRG		1.21280		11.79135
106 N-Nitrosomethylethylamine	+++++	0.58418	0.57876	0.54352	0.54304	0.51432					
	0.50151	0.50138					AVRG		0.53810		6.38520

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.64507	0.64908	0.61336	0.60691	0.56546					
	0.55158	0.54936					AVRG		0.59726		7.07556
108 N-Nitrosodiethylamine	+++++	0.60002	0.59792	0.54460	0.55515	0.50996					
	0.50185	0.50111					AVRG		0.54437		7.84567
109 Ethyl Methanesulfonate	+++++	0.77937	0.78398	0.73252	0.74517	0.68922					
	0.67400	0.67651					AVRG		0.72583		6.44394
110 Pentachloroethane	+++++	0.36537	0.35868	0.33978	0.34412	0.31859					
	0.30477	0.30069					AVRG		0.33314		7.67816
111 N-Nitrosopyrrolidine	+++++	0.65147	0.65118	0.60564	0.59568	0.54014					
	0.52363	0.52349					AVRG		0.58446		9.60255
113 N-Nitrosomorpholine	+++++	0.77690	0.75720	0.69860	0.69697	0.63076					
	0.60862	0.59644					AVRG		0.68078		10.46970
114 o-Toluidine	+++++	2.05374	1.96418	1.78212	1.74117	1.58116					
	1.51078	1.51005					AVRG		1.73474		12.47332
115 N-Nitrosopiperidine	+++++	0.16517	0.16671	0.15400	0.15626	0.14779					
	0.14357	0.14183					AVRG		0.15362		6.43146
116 a,a-Dimethylphenethylamine	+++++	0.84998	0.91437	0.90226	0.91158	0.87133					
	0.84727	0.81794					AVRG		0.87353		4.25275

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
117 Triethylphosphorothioate	+++++	0.16227	0.15179	0.14508	0.14517	0.13799						
	0.13034	0.12625					AVRG		0.14270		8.68942	
118 2,6-Dichlorophenol	+++++	0.27261	0.26747	0.24661	0.24973	0.23288						
	0.22683	0.22120					AVRG		0.24533		8.04029	
119 Hexachloropropene	+++++	0.12422	0.14505	0.13455	0.13486	0.13756						
	0.13062	0.12490					AVRG		0.13311		5.48816	
120 p-Phenylenediamine	+++++	0.34413	0.36083	0.31398	0.29301	0.26154						
	0.24844	+++++					AVRG		0.30365		14.69115	
121 N-Nitrosodi-n-butylamine	+++++	0.30402	0.30501	0.24131	0.24260	0.22117						
	+++++	+++++					AVRG		0.26282		14.83811	
122 Safrole	+++++	0.24219	0.23822	0.21649	0.21692	0.20189						
	0.19239	0.18963					AVRG		0.21396		9.73528	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.51062	0.49855	0.44614	0.45393	0.42366						
	0.40150	0.39571					AVRG		0.44716		10.00072	
124 Isosafrole	+++++	0.39056	0.38828	0.35693	0.35264	0.33685						
	0.32525	0.32217					AVRG		0.35324		7.88298	
125 1,4-Naphthoquinone	+++++	0.44627	0.42913	0.36710	0.34310	0.27951						
	0.26871	0.26396					AVRG		0.34254		22.12484	<-

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.19457	0.20451	0.19900	0.20530	0.18435					
	0.17688	0.17754					AVRG		0.19174		6.33347
127 Pentachlorobenzene	+++++	0.43110	0.41421	0.37919	0.37551	0.35401					
	0.33716	0.33489					AVRG		0.37515		9.84443
128 1-Naphthylamine	+++++	1.01413	1.02551	0.91517	0.89074	0.84391					
	0.80481	0.80092					AVRG		0.89931		10.26327
129 2-Naphthylamine	+++++	1.06923	1.09028	0.96961	0.93134	0.88633					
	0.81714	0.82229					AVRG		0.94089		11.64761
130 2,3,4,6-Tetrachlorophenol	+++++	0.28320	0.29838	0.27851	0.29220	0.26438					
	0.26048	0.26802					AVRG		0.27788		5.16598
131 5-Nitro-o-toluidine	+++++	0.30371	0.33910	0.30524	0.30826	0.30565					
	0.28937	0.29520					AVRG		0.30665		5.15108
132 Thionazin	+++++	0.18517	0.17934	0.16941	0.16728	0.15846					
	0.15141	0.14819					AVRG		0.16561		8.34122
134 Sulfotepp	+++++	0.08460	0.08173	0.08195	0.08009	0.07824					
	0.07503	0.07583					AVRG		0.07964		4.35673
135 Phorate	+++++	0.45146	0.42713	0.42213	0.39953	0.37573					
	0.35382	0.34151					AVRG		0.39590		10.25989

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.14215	0.17801	0.16278	0.16019	0.15578					
	0.15027	0.14373					AVRG		0.15613		7.94442
137 Phenacetin	+++++	0.31318	0.31793	0.28873	0.29334	0.28901					
	0.27803	0.27408					AVRG		0.29347		5.64036
138 Diallate	+++++	0.28920	0.27813	0.25090	0.24969	0.23408					
	0.22095	0.21741					AVRG		0.24862		10.98494
139 Dimethoate	+++++	0.27336	0.26946	0.26875	0.26784	0.25717					
	0.24705	0.24235					AVRG		0.26085		4.66441
140 4-Aminobiphenyl	+++++	0.55261	0.60071	0.58243	0.60084	0.53773					
	0.49732	0.48294					AVRG		0.55066		8.65686
141 Pentachloronitrobenzene	+++++	0.07818	0.07606	0.06875	0.06554	0.05850					
	0.05467	+++++					AVRG		0.06695		13.96038
142 Pronamide	+++++	0.30552	0.28970	0.25313	0.24216	0.21416					
	+++++	+++++					AVRG		0.26094		14.10331
143 Dinoseb	+++++	26789	59526	194494	260402	434843					
	550419	666120					LINR	0.12393	0.15282		0.99867
144 Disulfoton	+++++	0.33440	0.31848	0.31065	0.30032	0.28000					
	0.26612	0.25293					AVRG		0.29470		9.99476

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INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.23174	0.22766	0.22643	0.22704	0.21420						
	0.20697	0.20133					AVRG		0.21934		5.38336	
146 4-Nitroquinoline-1-oxide	+++++	0.03620	0.04258	0.03229	0.02624	0.02359						
	0.02090	0.01975					AVRG		0.02879		29.56738	<-
147 Methapyrilene	+++++	0.50709	0.51231	0.47429	0.44273	0.38752						
	0.37265	0.36578					AVRG		0.43748		14.35658	
148 Isodrin	+++++	0.12789	0.12550	0.11252	0.11113	0.10270						
	0.09732	0.09486					AVRG		0.11028		11.76979	
149 Aramite	+++++	0.04987	0.05241	0.05098	0.04801	0.04511						
	0.04334	0.04247					AVRG		0.04746		8.18427	
150 Kepone	+++++	0.08033	0.08350	0.07854	0.07324	0.07530						
	0.07353	0.07232					AVRG		0.07668		5.48032	
151 p-(Dimethylamino)azobenzene	+++++	0.35661	0.32327	0.31849	0.32153	0.28722						
	0.28883	0.27624					AVRG		0.31031		8.98103	
152 Chlorobenzilate	+++++	0.34601	0.29739	0.29945	0.30335	0.27160						
	0.27932	0.26590					AVRG		0.29472		9.12242	
153 3,3'-Dimethylbenzidine	+++++	0.63324	0.65171	0.60049	0.59103	0.56476						
	0.56416	0.54908					AVRG		0.59350		6.40934	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.44294	0.43580	0.46237	0.43998	0.43138					
	0.41231	0.39369					AVRG		0.43121		5.16049
155 2-Acetylaminofluorene	+++++	0.28561	0.37666	0.36505	0.36381	0.34665					
	0.35179	0.35001					AVRG		0.34851		8.50665
157 7,12Dimethylbenz(a)anthracene	+++++	0.51449	0.49379	0.48383	0.50239	0.49617					
	0.46390	0.44355					AVRG		0.48545		5.00153
158 3-Methylcholanthrene	+++++	0.35367	0.42677	0.41143	0.40554	0.40467					
	0.39610	0.40256					AVRG		0.40010		5.65129
26 Phthalic anhydride	+++++	27295	87036	200557	277210	460400					
	556029	682236					LINR	0.03349	0.14624		0.99669
173 Carbazole	1.01509	0.74843	0.72374	0.75388	0.76522	0.69273					
	0.66795	+++++					AVRG		0.76672		14.99112
174 Hexachlorophene	+++++	0.04741	0.06158	+++++	0.06384	0.06162					
	0.05947	+++++					AVRG		0.05878		11.13226
179 Dibenzo(a,e)pyrene	+++++	0.36049	0.28249	0.34513	0.30393	0.34223					
	0.31678	0.29389					AVRG		0.32071		9.10777
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.20897	0.35254	0.17686	0.22912	0.25164					
	0.22851	0.25291					AVRG		0.24293		22.61358 <-
191 Parathion	+++++	0.06141	0.06185	0.06208	0.06168	0.05986					
	0.05714	0.05627					AVRG		0.06004		3.99838
192 Methoxychlor	+++++	0.71007	0.76187	0.67557	0.67506	0.65556					
	0.60574	0.57499					AVRG		0.66555		9.36899
210 m-Toluidine	+++++	1.67718	1.91596	1.79952	2.07052	1.85391					
	1.82362	+++++					AVRG		1.85679		7.05627
211 p-Toluidine	+++++	1.47044	1.37288	1.42100	1.28519	1.31427					
	1.16108	+++++					AVRG		1.33748		8.21058
212 Cis Diallate	+++++	0.29467	0.31145	0.29067	0.29841	0.28191					
	0.27521	0.27193					AVRG		0.28918		4.80566
213 Trans Diallate	+++++	0.34024	0.32722	0.29518	0.29375	0.27539					
	0.25994	0.25578					AVRG		0.29250		10.98494
214 1,4-Dinitrobenzene	+++++	0.27003	0.28077	0.27490	0.28781	0.26587					
	0.25743	0.25119					AVRG		0.26971		4.75195
215 2-Ethoxyethanol	+++++	0.75153	0.75427	0.72199	0.73882	0.68817					
	0.66248	0.66748					AVRG		0.71211		5.48996

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.14670	0.14448	0.16081	0.16367	0.16247					
	0.16353	0.15734					AVRG		0.15700		5.16494
229 2,2'-Dichlorobenzil	+++++	0.75519	0.72438	0.63746	0.67020	+++++					
	0.60843	0.58423					AVRG		0.66332		10.03522
230 4-Chlorothioanisole	+++++	0.25858	0.25840	0.25992	0.26979	+++++					
	0.24846	0.24389					AVRG		0.25651		3.57209
231 4-Chlorothiophenol	+++++	20380	113799	319351	419370	+++++					
	924542	1190062					LINR	0.19963	0.21635		0.99920
232 bis(p-Chlorophenyl)sulfone	+++++	0.42993	0.41812	0.36485	0.38196	+++++					
	0.35821	0.34208					AVRG		0.38252		9.09627
233 bis(p-Chlorophenyl)disulfide	+++++	0.18867	0.16361	0.14247	0.15771	+++++					
	0.13916	0.13446					AVRG		0.15435		13.09397
234 Diphenyl disulfide	+++++	0.25253	0.23711	0.22392	0.22770	+++++					
	0.20985	0.20621					AVRG		0.22622		7.62190
235 Diphenyl sulfide	+++++	0.81794	0.80171	0.75220	0.72922	+++++					
	0.67001	0.65856					AVRG		0.73827		8.91554
236 Phenyl sulfone	+++++	0.47552	0.46096	0.43737	0.43617	+++++					
	0.40374	0.40017					AVRG		0.43565		6.89465

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	38588	80856	126016	157606	+++++					
	292598	364853					LINR	-0.21210	0.09455		0.99652
238 Phthalic acid	+++++	19671	59106	176058	250394	+++++					
	603096	+++++					LINR	0.26696	0.14514		0.99255
239 Thiophenol	+++++	62327	207465	508832	672604	+++++					
	1367181	1721186					LINR	0.09119	1.06115		0.99838
240 bis(Chloromethyl)ether	+++++	0.97516	0.91313	0.87686	0.87662	+++++					
	0.80538	0.76021					AVRG		0.86789		8.80685
241 Octachlorostyrene	+++++	0.05974	0.05913	0.05893	0.06005	+++++					
	0.05689	0.05659					AVRG		0.05855		2.50376
M 225 Trichlorophenols	+++++	0.37618	0.37852	0.35462	0.35443	0.33004					
	0.31483	0.30425					AVRG		0.34470		8.43399
M 226 Tetrachlorophenols	+++++	0.28320	0.29838	0.27851	0.29220	0.26438					
	0.26048	0.26802					AVRG		0.27788		5.16598
M 227 Benzo(b,k)fluoranthene	1.10155	1.09688	1.15773	1.02890	1.08265	1.04507					
	0.98224	1.02788					AVRG		1.06536		5.16433
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Cal Date : 22-Mar-2010 16:37 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	1.17799	1.21081	1.12585	1.16530	1.06488						
	1.02412	1.01478					AVRG		1.11196		7.01882	
$ 5 Phenol-d5	+++++	1.53055	1.52276	1.42264	1.44854	1.34995						
	1.31463	1.30976					AVRG		1.41412		6.55306	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.43556	0.43337	0.38834	0.39802	0.36088						
	0.33590	0.32456					AVRG		0.38237		11.53560	
$ 39 2-Fluorobiphenyl	+++++	1.22526	1.18747	1.05919	1.04982	0.94356						
	0.89495	0.86381					AVRG		1.03201		13.55845	
$ 60 2,4,6-Tribromophenol	+++++	0.11014	0.11537	0.11089	0.11508	0.11113						
	0.10877	0.11433					AVRG		0.11225		2.35114	
$ 81 p-Terphenyl-d14	+++++	0.73264	0.77308	0.65971	0.68870	0.71170						
	0.64309	0.67033					AVRG		0.69704		6.50888	

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Cal Date : 22-Mar-2010 16:37 jen00986

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.11196	1.12168	1.12168	0.000	0.87417	60.00000	Averaged
$ 5 Phenol-d5	1.41412	1.37076	1.37076	0.000	-3.06618	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.38237	0.38375	0.38375	0.000	0.36085	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03201	1.06678	1.06678	0.000	3.36917	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11225	0.11519	0.11519	0.000	2.62633	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.69704	0.79497	0.79497	0.000	14.04962	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.72913	0.72913	0.000	-5.98844	60.00000	Averaged
2 Pyridine	1.10526	0.87234	0.87234	0.000	-21.07309	60.00000	Averaged
4 Aniline	0.66950	0.60777	0.60777	0.000	-9.21935	60.00000	Averaged
6 Phenol	1.43150	1.41995	1.41995	0.001	-0.80724	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.94128	0.94128	0.000	-11.56744	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.11829	1.11829	0.000	-3.94731	60.00000	Averaged
203 n-Decane	1.69067	1.54455	1.54455	0.000	-8.64282	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.28904	1.28904	0.000	0.50225	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.21952	1.21952	0.001	-2.07919	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.06600	1.06600	0.000	-5.57188	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	2.09235	2.09235	0.000	-6.47116	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.80249	0.80249	0.000	-1.92556	60.00000	Averaged
15 o-Cresol	0.88788	0.81788	0.81788	0.000	-7.88416	60.00000	Averaged
18 m,p-Cresols	1.27893	1.27505	1.27505	0.000	-0.30315	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.94425	0.94425	0.050	-3.31985	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.51894	0.51894	0.000	-3.48261	60.00000	Averaged
21 Nitrobenzene	0.35281	0.34682	0.34682	0.000	-1.69798	60.00000	Averaged
22 Isophorone	0.67701	0.62895	0.62895	0.000	-7.09880	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.16307	0.16307	0.001	6.63474	20.00000	Averaged ccc
24 2,4-Dimethylphenol	41.38180	40.00000	0.29961	0.000	3.45451	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.34233	0.34233	0.000	-6.99093	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.26160	0.26160	0.001	3.59413	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.19379	0.19379	0.000	3.33592	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.28858	0.28858	0.000	-0.16362	60.00000	Averaged
30 Naphthalene	0.98486	0.79921	0.79921	0.000	-18.85032	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.25507	0.25507	0.000	-10.27705	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.43164	0.43164	0.000	-0.64988	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.16530	0.16530	0.001	0.75184	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.27921	0.27921	0.001	1.76856	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.55335	0.55335	0.000	-8.63470	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.58910	0.52291	0.52291	0.000	-11.23674	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.22936	0.18652	0.18652	0.050	-18.67482	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52459	0.51110	0.51110	0.000	-2.57171	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.33474	0.32662	0.32662	0.001	-2.42453	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.35465	0.40021	0.40021	0.000	12.84507	60.00000	Averaged	
40 2-Chloronaphthalene	0.97365	0.93597	0.93597	0.000	-3.87057	60.00000	Averaged	
42 o-Nitroaniline	0.34201	0.32847	0.32847	0.000	-3.95892	60.00000	Averaged	
41 m-Nitroaniline	0.25409	0.25677	0.25677	0.000	1.05507	60.00000	Averaged	
43 Dimethylphthalate	1.13004	1.08997	1.08997	0.000	-3.54579	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27058	0.26832	0.26832	0.000	-0.83186	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35648	0.35493	0.35493	0.000	-0.43442	60.00000	Averaged	
45 Acenaphthylene	1.54257	1.46080	1.46080	0.000	-5.30128	60.00000	Averaged	
47 Acenaphthene	1.03783	0.85181	0.85181	0.001	-17.92376	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	46.32757	40.00000	0.11227	0.050	15.81891	60.00000	Linear	spcc
49 Dibenzofuran	1.26069	1.27158	1.27158	0.000	0.86401	60.00000	Averaged	
51 Diethylphthalate	1.10774	1.08784	1.08784	0.000	-1.79621	60.00000	Averaged	
52 4-Nitrophenol	0.19236	0.19555	0.19555	0.050	1.66021	60.00000	Averaged	spcc
53 Fluorene	1.11781	1.00173	1.00173	0.000	-10.38406	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53621	0.52718	0.52718	0.000	-1.68531	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	53.31509	40.00000	0.12791	0.000	33.28773	60.00000	Linear	
56 p-Nitroaniline	0.20835	0.21709	0.21709	0.000	4.19498	60.00000	Averaged	
133 Diphenylamine	0.51902	0.51728	0.51728	0.001	-0.33469	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.69767	0.67966	0.67966	0.000	-2.58092	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17368	0.16740	0.16740	0.000	-3.61790	60.00000	Averaged	
63 Hexachlorobenzene	0.16595	0.16267	0.16267	0.000	-1.98022	60.00000	Averaged	
65 Pentachlorophenol	0.09397	0.10258	0.10258	0.001	9.16648	20.00000	Averaged	ccc
206 n-Octadecane	0.48063	0.43611	0.43611	0.000	-9.26268	60.00000	Averaged	
68 Phenanthrene	0.97466	0.84202	0.84202	0.000	-13.60887	60.00000	Averaged	
69 Anthracene	0.98189	0.86400	0.86400	0.000	-12.00660	60.00000	Averaged	
72 Di-n-butylphthalate	1.13557	1.00857	1.00857	0.000	-11.18389	60.00000	Averaged	
76 Fluoranthene	0.98842	0.88230	0.88230	0.001	-10.73646	20.00000	Averaged	ccc
79 Pyrene	1.21938	1.19482	1.19482	0.000	-2.01369	60.00000	Averaged	
85 Butylbenzylphthalate	0.58998	0.57132	0.57132	0.000	-3.16294	60.00000	Averaged	
89 Benzo(a)anthracene	1.04446	0.93343	0.93343	0.000	-10.63003	60.00000	Averaged	
92 Chrysene	0.99764	0.88878	0.88878	0.000	-10.91116	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.78860	0.68724	0.68724	0.000	-12.85331	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6c1612.d
Analysis Type:
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

Injection Date: 16-MAR-2010 13:40
Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Init. Cal. Times: 09:18 03:19

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.53062	1.45980	1.45980	0.001	-4.62716	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.08744	1.04680	1.04680	0.000	-3.73780	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04328	1.00268	1.00268	0.000	-3.89200	60.00000	Averaged	
	97 Benzo(a)pyrene	0.92098	0.86170	0.86170	0.001	-6.43663	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.84510	0.68869	0.68869	0.000	-18.50875	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.68068	0.54838	0.54838	0.000	-19.43674	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.72160	0.57432	0.57432	0.000	-20.41069	60.00000	Averaged	
	126 m-Dinitrobenzene	0.19174	0.20089	0.20089	0.000	4.77491	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged	
	143 Dinoseb	45.06416	40.00000	0.15323	0.000	12.66041	60.00000	Linear	
	173 Carbazole	0.76672	0.77286	0.77286	0.000	0.80138	60.00000	Averaged	
	184 p-Benzoquinone	0.24293	0.15889	0.15889	0.000	-34.59747	60.00000	Averaged	
	192 Methoxychlor	0.66555	0.59810	0.59810	0.000	-10.13445	60.00000	Averaged	
	211 p-Toluidine	1.33748	1.16997	1.16997	0.000	-12.52380	60.00000	Averaged	
	210 m-Toluidine	1.85679	1.79116	1.79116	0.000	-3.53432	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71211	0.71416	0.71416	0.000	0.28894	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.32071	0.16099	0.16099	0.000	-49.80217	60.00000	Averaged	
	26 Phthalic anhydride	53.63299	40.00000	0.19118	0.000	34.08247	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.26971	0.26900	0.26900	0.000	-0.26254	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.15700	0.15460	0.15460	0.000	-1.53152	60.00000	Averaged	
M	225 Trichlorophenols	0.34470	0.36342	0.36342	0.000	5.43080	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.06536	1.02474	1.02474	0.000	-3.81330	60.00000	Averaged	

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Data file : /chem/MSD6.i/s031610.b/s6c1612.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 16-MAR-2010 13:40
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100309-09.1|040 PPM|1|SVM|1|MEGAICV
Misc Info : |MSD8270|WBN100310-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m
Meth Date : 17-Mar-2010 09:42 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.963	3.963	(1.000)	456524	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)	1718025	40.0000	
* 46 Acenaphthene-d10	164	6.093	6.093	(1.000)	1004258	40.0000	
* 67 Phenanthrene-d10	188	7.269	7.269	(1.000)	1718283	40.0000	
* 91 Chrysene-d12	240	9.698	9.698	(1.000)	1300638	40.0000	
* 98 Perylene-d12	264	11.398	11.398	(1.000)	952660	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.140	(0.792)	512074	40.0000	40.3
$ 5 Phenol-d5	99	3.669	3.669	(0.926)	625784	40.0000	38.8
$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.895)	659299	40.0000	40.1
$ 39 2-Fluorobiphenyl	172	5.575	5.575	(0.915)	1071322	40.0000	41.3
$ 60 2,4,6-Tribromophenol	329	6.692	6.692	(1.098)	115684	40.0000	41.0
$ 81 p-Terphenyl-d14	244	8.657	8.657	(0.893)	1033963	40.0000	45.6
1 N-Methyl-N-nitrosomethylamine	74	2.452	2.452	(0.619)	332865	40.0000	37.6
2 Pyridine	79	2.481	2.481	(0.626)	398246	40.0000	31.6
4 Aniline	66	3.746	3.746	(0.945)	277463	40.0000	36.3
6 Phenol	94	3.681	3.681	(0.929)	648240	40.0000	39.7
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.950)	429717	40.0000	35.4
8 2-Chlorophenol	128	3.828	3.828	(0.966)	510524	40.0000	38.4
203 n-Decane	43	3.810	3.810	(0.961)	705124	40.0000	36.5
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.991)	588476	40.0000	40.2
11 1,4-Dichlorobenzene	146	3.975	3.975	(1.003)	556738	40.0000	39.2
13 1,2-Dichlorobenzene	146	4.081	4.081	(1.030)	486655	40.0000	37.8
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.036)	955210	40.0000	37.4
12 Benzyl alcohol	108	4.028	4.028	(1.016)	366356	40.0000	39.2
15 o-Cresol	107	4.075	4.075	(1.028)	373380	40.0000	36.8
18 m,p-Cresols	107	4.181	4.181	(1.055)	582091	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.061)	431074	40.0000	38.7
19 Hexachloroethane	117	4.310	4.310	(1.088)	236910	40.0000	38.6
21 Nitrobenzene	77	4.340	4.340	(0.898)	595845	40.0000	39.3
22 Isophorone	82	4.498	4.498	(0.931)	1080551	40.0000	37.2
23 2-Nitrophenol	139	4.557	4.557	(0.943)	280151	40.0000	42.6
24 2,4-Dimethylphenol	122	4.546	4.546	(0.940)	514742	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.955)	588138	40.0000	37.2
26 2,4-Dichlorophenol	162	4.716	4.716	(0.976)	449433	40.0000	41.4
27 Benzoic acid	105	4.604	4.604	(0.953)	332933	40.0000	41.3
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	495781	40.0000	39.9
30 Naphthalene	128	4.851	4.851	(1.004)	1373063	40.0000	32.4
204 alpha-Terpineol	59	4.822	4.822	(0.998)	438221	40.0000	35.9
31 4-Chloroaniline	127	4.863	4.863	(1.006)	741569	40.0000	39.7
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	283988	40.0000	40.3
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.069)	479692	40.0000	40.7
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	950663	40.0000	36.5
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	898368	40.0000	35.5
36 Hexachlorocyclopentadiene	237	5.434	5.434	(0.892)	187318	40.0000	32.5
205 2,3-Dichloroaniline	161	5.528	5.528	(0.907)	513274	40.0000	39.0
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.905)	328015	40.0000	39.0
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.910)	401913	40.0000	45.1
40 2-Chloronaphthalene	162	5.687	5.687	(0.933)	939951	40.0000	38.4
42 o-Nitroaniline	65	5.740	5.740	(0.942)	329871	40.0000	38.4
41 m-Nitroaniline	138	6.040	6.040	(0.991)	257868	40.0000	40.4
43 Dimethylphthalate	163	5.851	5.851	(0.960)	1094609	40.0000	38.6
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.970)	269467	40.0000	39.7
50 2,4-Dinitrotoluene	165	6.204	6.204	(1.018)	356439	40.0000	39.8
45 Acenaphthylene	152	5.993	5.993	(0.984)	1467016	40.0000	37.9
47 Acenaphthene	154	6.116	6.116	(1.004)	855440	40.0000	32.8
48 2,4-Dinitrophenol	184	6.110	6.110	(1.003)	112751	40.0000	46.3
49 Dibenzofuran	168	6.245	6.245	(1.025)	1276999	40.0000	40.3
51 Diethylphthalate	149	6.363	6.363	(1.044)	1092470	40.0000	39.3
52 4-Nitrophenol	139	6.122	6.122	(1.005)	196387	40.0000	40.7
53 Fluorene	166	6.504	6.504	(1.068)	1005998	40.0000	35.8
54 4-Chlorophenylphenylether	204	6.481	6.481	(1.064)	529421	40.0000	39.3
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.522	(0.897)	219793	40.0000	53.3
56 p-Nitroaniline	138	6.504	6.504	(1.068)	218010	40.0000	41.7
133 Diphenylamine	169	6.569	6.569	(0.904)	888833	40.0000	39.9
58 1,2-Diphenylhydrazine	77	6.604	6.604	(0.909)	1167855	40.0000	39.0
61 4-Bromophenylphenylether	248	6.869	6.869	(0.945)	287633	40.0000	38.6
63 Hexachlorobenzene	284	6.940	6.940	(0.955)	279510	40.0000	39.2
65 Pentachlorophenol	266	7.087	7.087	(0.975)	176266	40.0000	43.7
206 n-Octadecane	57	7.081	7.081	(0.974)	749361	40.0000	36.3
68 Phenanthrene	178	7.292	7.292	(1.003)	1446824	40.0000	34.6
69 Anthracene	178	7.334	7.334	(1.009)	1484597	40.0000	35.2
72 Di-n-butylphthalate	149	7.692	7.692	(1.058)	1733003	40.0000	35.5
76 Fluoranthene	202	8.339	8.339	(1.147)	1516040	40.0000	35.7

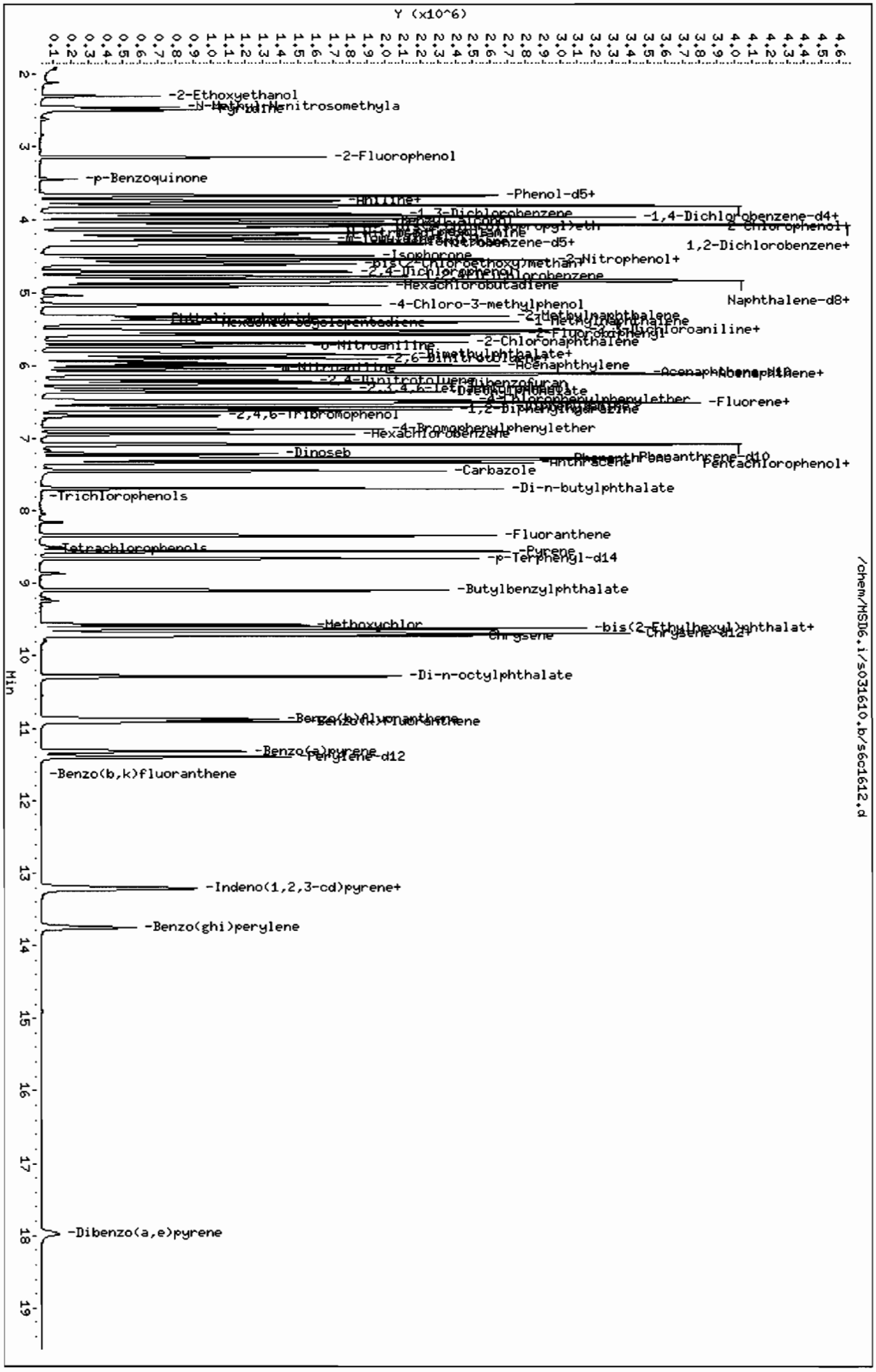
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.557	8.557	(0.882)	1554030	40.0000	39.2
85 Butylbenzylphthalate	149	9.092	9.092	(0.938)	743080	40.0000	38.7
89 Benzo(a)anthracene	228	9.681	9.681	(0.998)	1214059	40.0000	35.7
92 Chrysene	228	9.722	9.722	(1.002)	1155983	40.0000	35.6
93 bis(2-Ethylhexyl)phthalate	149	9.616	9.616	(0.992)	893848	40.0000	34.8
94 Di-n-octylphthalate	149	10.280	10.280	(0.902)	1390689	40.0000	38.1
95 Benzo(b)fluoranthene	252	10.875	10.875	(0.954)	997243	40.0000	38.5
96 Benzo(k)fluoranthene	252	10.910	10.910	(0.957)	955210	40.0000	38.4
97 Benzo(a)pyrene	252	11.322	11.322	(0.993)	820904	40.0000	37.4
99 Indeno(1,2,3-cd)pyrene	276	13.204	13.204	(1.158)	656083	40.0000	32.6
100 Dibenzo(a,h)anthracene	278	13.221	13.221	(1.160)	522415	40.0000	32.2
101 Benzo(ghi)perylene	276	13.757	13.757	(1.207)	547130	40.0000	31.8
126 m-Dinitrobenzene	168	5.893	5.893	(0.967)	201747	40.0000	41.9
130 2,3,4,6-Tetrachlorophenol	232	6.316	6.316	(1.037)	271462	40.0000	38.9
143 Dinoseb	211	7.210	7.210	(0.992)	263293	40.0000	45.1
173 Carbazole	167	7.451	7.451	(1.025)	1327998	40.0000	40.3
184 p-Benzoquinone	54	3.446	3.446	(0.869)	72535	40.0000	26.2
192 Methoxychlor	227	9.569	9.569	(0.987)	777910	40.0000	35.9
211 p-Toluidine	106	4.246	4.246	(1.071)	534121	40.0000	35.0(H)
210 m-Toluidine	106	4.263	4.263	(1.076)	817708	40.0000	38.6
215 2-Ethoxyethanol	59	2.293	2.293	(0.578)	326033	40.0000	40.1
179 Dibenzo(a,e)pyrene	302	17.974	17.974	(1.577)	153366	40.0000	20.1
26 Phthalic anhydride	104	5.369	5.369	(1.111)	328450	40.0000	53.6
214 1,4-Dinitrobenzene	75	5.834	5.834	(0.958)	270150	40.0000	39.9
216 Methylenebis(2-chloroaniline)	231	9.628	9.628	(0.993)	201073	40.0000	39.4
M 225 Trichlorophenols	196				729928	80.0000	84.3
M 226 Tetrachlorophenols	232				271462	40.0000	38.9
M 227 Benzo(b,k)fluoranthene	252				1952453	80.0000	76.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s031610.b/s6c1612.d
Date : 16-MAR-2010 13:40
Client ID: MEGAICV
Sample Info: IWBN100309-09,1:040 PPM:1:SVM:1:MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagi
Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41
Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.81875	0.81875	0.000	-14.72761	60.00000	Averaged
16 Acetophenone	1.24814	1.25263	1.25263	0.000	0.35947	60.00000	Averaged
189 Caprolactam	0.09790	0.10379	0.10379	0.000	6.01713	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.18809	1.18809	0.000	6.86162	60.00000	Averaged
207 Atrazine	0.04606	0.04863	0.04863	0.000	5.59576	60.00000	Averaged
77 Benzidine	0.42058	0.38100	0.38100	0.000	-9.41199	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29115	0.29115	0.000	-3.50494	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.42489	0.42489	0.000	20.98835	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.23586	0.23586	0.000	24.27101	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.99246	0.99246	0.000	19.99468	60.00000	Averaged
105 2-Picoline	1.21280	1.17717	1.17717	0.000	-2.93779	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.51671	0.51671	0.000	-3.97561	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.64303	0.64303	0.000	7.66352	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.51427	0.51427	0.000	-5.53074	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.86252	0.86252	0.000	18.83349	60.00000	Averaged
110 Pentachloroethane	0.33314	0.46050	0.46050	0.000	38.22991	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.54601	0.54601	0.000	-6.57949	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.67817	0.67817	0.000	-0.38364	60.00000	Averaged
114 o-Toluidine	1.73474	1.71282	1.71282	0.000	-1.26373	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.15537	0.15537	0.000	1.14048	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.84296	0.84296	0.000	-3.49989	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.25532	0.25532	0.000	4.07128	60.00000	Averaged
119 Hexachloropropene	0.13311	0.21102	0.21102	0.000	58.53040	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25418	0.25418	0.000	-16.29271	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.23622	0.23622	0.000	-10.12220	60.00000	Averaged
122 Safrole	0.21396	0.24803	0.24803	0.000	15.92258	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.49965	0.49965	0.000	11.73987	60.00000	Averaged
124 Isosafrole	0.35324	0.46919	0.46919	0.000	32.82296	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.36074	0.36074	0.000	5.31328	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.39513	0.39513	0.000	5.32511	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.86590	0.86590	0.000	-3.71571	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.95153	0.95153	0.000	1.13110	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.29799	0.29799	0.000	-2.82387	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.20859	0.20859	0.000	33.60060	60.00000	Averaged
137 Phenacetin	0.29347	0.31337	0.31337	0.000	6.77907	60.00000	Averaged
138 Diallate	0.24862	0.23882	0.23882	0.000	-3.94194	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41
Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.35766	0.35766	0.000	23.68031	60.00000	Averaged
213 Trans Diallate	0.29250	0.28097	0.28097	0.000	-3.94194	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.60803	0.60803	0.000	10.41902	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.07174	0.07174	0.000	7.16089	60.00000	Averaged
142 Pronamide	0.26094	0.27195	0.27195	0.000	4.22099	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02702	0.02702	0.000	-6.14630	60.00000	Averaged
147 Methapyrilene	0.43748	0.36011	0.36011	0.000	-17.68475	60.00000	Averaged
148 Isodrin	0.11028	0.10672	0.10672	0.000	-3.22110	60.00000	Averaged
149 Aramite	0.04746	0.04804	0.04804	0.000	1.23400	60.00000	Averaged
150 Kepone	0.07668	0.07470	0.07470	0.000	-2.58614	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.32655	0.32655	0.000	5.23269	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.31516	0.31516	0.000	6.93640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.56147	0.56147	0.000	-5.39699	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.33367	0.33367	0.000	-4.25802	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.50464	0.50464	0.000	3.95471	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.40383	0.40383	0.000	0.93137	60.00000	Averaged

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Data file : /chem/MSD6.i/s031610.b/s6c1635.d
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV
Inj Date : 17-MAR-2010 00:41
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100312-08.1|40 PPM|1|SVM|1|APICV
Misc Info : |MSD8270|WBN100310-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m
Meth Date : 17-Mar-2010 09:44 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.969	(1.000)	439915	40.0000	
* 29 Naphthalene-d8	136	4.840	4.840	(1.000)	1539251	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.098	(1.000)	929656	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.281	(1.000)	1586415	40.0000	
* 91 Chrysene-d12	240	9.704	9.704	(1.000)	1243348	40.0000	
* 98 Perylene-d12	264	11.422	11.422	(1.000)	840077	40.0000	
209 Benzaldehyde	77	3.698	3.698	(0.932)	360181	40.0000	34.1
16 Acetophenone	105	4.222	4.222	(1.064)	551051	40.0000	40.1
189 Caprolactam	113	5.116	5.116	(1.057)	159753	40.0000	42.4
208 1,1'-Biphenyl	154	5.663	5.663	(0.929)	1104517	40.0000	42.7
207 Atrazine	173	6.981	6.981	(0.959)	77154	40.0000	42.2
77 Benzidine	184	8.439	8.439	(0.870)	473712	40.0000	36.2
90 3,3'-Dichlorobenzidine	252	9.639	9.639	(0.993)	361998	40.0000	38.6
102 1,4-Dioxane	88	2.310	2.310	(0.582)	186917	40.0000	48.4
103 Methyl methacrylate	100	2.304	2.304	(0.581)	103758	40.0000	49.7
104 Ethyl methacrylate	69	2.669	2.669	(0.672)	436599	40.0000	48.0
105 2-Picoline	93	2.863	2.863	(0.721)	517853	40.0000	38.8
106 N-Nitrosomethylethylamine	88	2.904	2.904	(0.732)	227308	40.0000	38.4
107 Methyl methanesulfonate	80	3.063	3.063	(0.772)	282879	40.0000	43.1
108 N-Nitrosodiethylamine	102	3.299	3.299	(0.831)	226233	40.0000	37.8
109 Ethyl Methanesulfonate	79	3.457	3.457	(0.871)	379437	40.0000	47.5
110 Pentachloroethane	167	3.798	3.798	(0.957)	202582	40.0000	55.3
111 N-Nitrosopyrrolidine	100	4.210	4.210	(1.061)	240197	40.0000	37.4(Q)
113 N-Nitrosomorpholine	56	4.234	4.234	(1.067)	298338	40.0000	39.8
114 o-Toluidine	106	4.251	4.251	(1.071)	753495	40.0000	39.5
115 N-Nitrosopiperidine	114	4.451	4.451	(0.920)	239154	40.0000	40.4

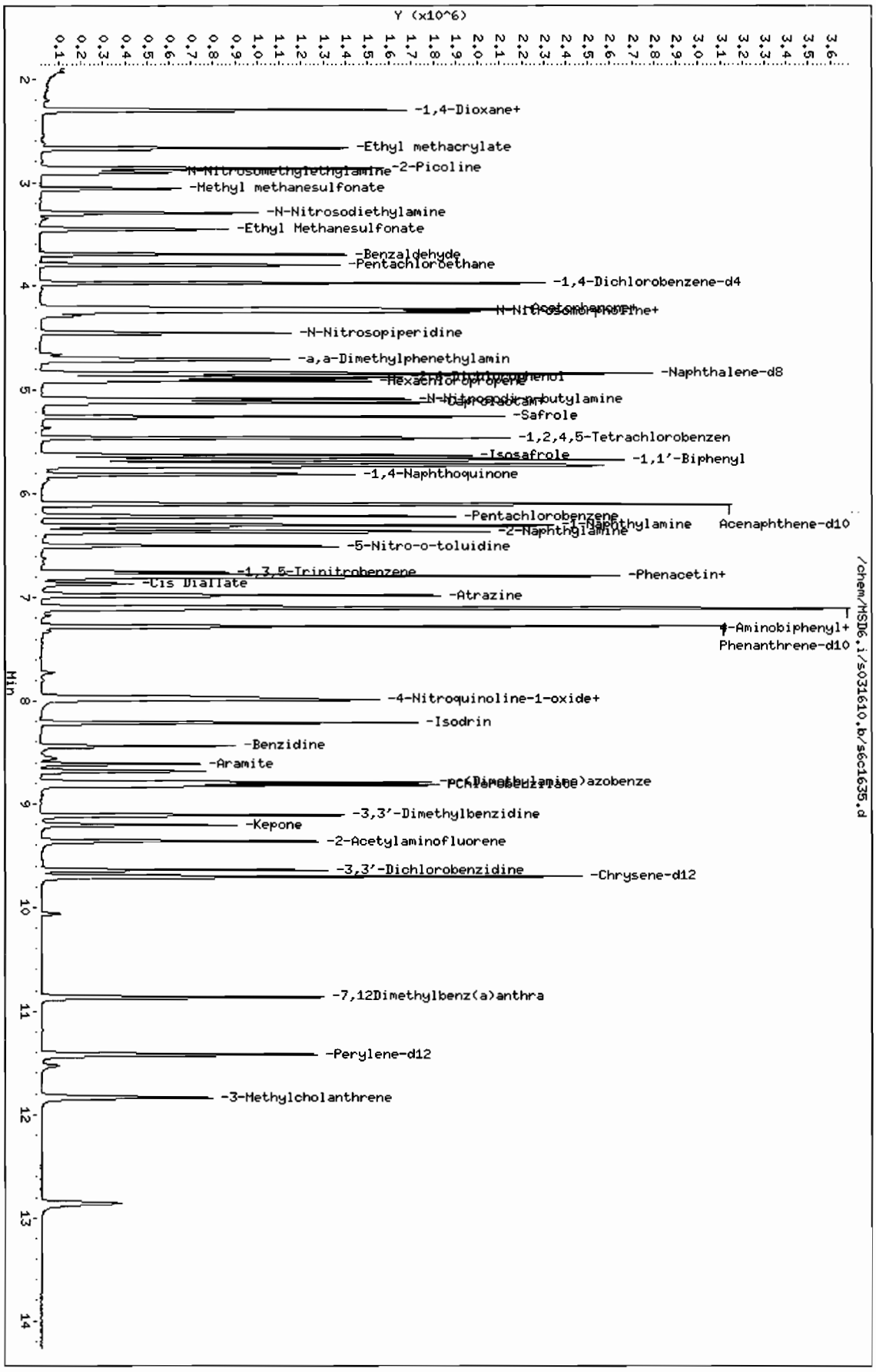
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.710	4.710	(0.973)	1297528	40.0000	38.6
118 2,6-Dichlorophenol	162	4.881	4.881	(1.008)	393003	40.0000	41.6
119 Hexachloropropene	213	4.910	4.910	(1.015)	324808	40.0000	63.4
120 p-Phenylenediamine	108	5.122	5.122	(1.058)	391247	40.0000	33.5
121 N-Nitrosodi-n-butylamine	84	5.087	5.087	(1.051)	363602	40.0000	36.0(Q)
122 Safrole	162	5.251	5.251	(1.085)	381780	40.0000	46.4
123 1,2,4,5-Tetrachlorobenzene	216	5.457	5.457	(0.895)	464506	40.0000	44.7
124 Isosafrole	162	5.622	5.622	(0.922)	436182	40.0000	53.1
125 1,4-Naphthoquinone	158	5.816	5.816	(0.954)	335363	40.0000	42.1
127 Pentachlorobenzene	250	6.216	6.216	(1.019)	367336	40.0000	42.1
128 1-Naphthylamine	143	6.310	6.310	(1.035)	804986	40.0000	38.5
129 2-Naphthylamine	143	6.363	6.363	(1.043)	884595	40.0000	40.4
131 5-Nitro-o-toluidine	152	6.504	6.504	(1.067)	277025	40.0000	38.9
136 1,3,5-Trinitrobenzene	75	6.757	6.757	(0.928)	330916	40.0000	53.4
137 Phenacetin	108	6.798	6.798	(0.934)	497127	40.0000	42.7(Q)
138 Diallate	86	6.787	6.787	(0.932)	378872	40.0000	38.4
212 Cis Diallate	86	6.863	6.863	(0.943)	85109	6.00000	7.4
213 Trans Diallate	86	6.787	6.787	(0.932)	378872	34.0000	32.6
140 4-Aminobiphenyl	169	7.092	7.092	(0.974)	964585	40.0000	44.2
141 Pentachloronitrobenzene	237	7.110	7.110	(0.977)	113813	40.0000	42.9(Q)
142 Pronamide	173	7.110	7.110	(0.977)	431425	40.0000	41.7
146 4-Nitroquinoline-1-oxide	101	7.951	7.951	(1.092)	42870	40.0000	37.5
147 Methapyrilene	58	7.986	7.986	(1.097)	571288	40.0000	32.9
148 Isodrin	193	8.210	8.210	(1.128)	169307	40.0000	38.7
149 Aramite	185	8.616	8.616	(1.183)	76213	40.0000	40.5
150 Kepone	272	9.204	9.204	(1.264)	118500	40.0000	39.0
151 p-(Dimethylamino)azobenzene	120	8.792	8.792	(0.906)	406018	40.0000	42.1
152 Chlorobenzilate	251	8.828	8.828	(0.910)	391852	40.0000	42.8
153 3,3'-Dimethylbenzidine	212	9.116	9.116	(0.939)	698099	40.0000	37.8
155 2-Acetylaminofluorene	181	9.363	9.363	(0.965)	414870	40.0000	38.3
157 7,12Dimethylbenz(a)anthracene	256	10.869	10.869	(0.952)	423939	40.0000	41.6
158 3-Methylcholanthrene	268	11.839	11.839	(1.037)	339249	40.0000	40.4(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s031610.b/s6c1635.d
Date : 17-MAR-2010 00:41
Client ID: APICV
Sample Info: IWBN100312-08,1|40 PPM|1|SVM|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20



Page 1

Data File: /chem/MSD6.i/s032110.b/s6c2105.d
Report Date: 22-Mar-2010 16:50

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 16:55
Lab File ID: s6c2105.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.11196	0.96065	0.96065	0.000	-13.60715	60.00000	Averaged
$ 5 Phenol-d5	1.41412	1.16974	1.16974	0.000	-17.28117	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.38237	0.32731	0.32731	0.000	-14.40069	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03201	1.00349	1.00349	0.000	-2.76315	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11225	0.11301	0.11301	0.000	0.68496	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.69704	0.66428	0.66428	0.000	-4.69965	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.63282	0.63282	0.000	-18.40584	60.00000	Averaged
2 Pyridine	1.10526	0.88236	0.88236	0.000	-20.16652	60.00000	Averaged
4 Aniline	0.66950	0.53240	0.53240	0.000	-20.47730	60.00000	Averaged
6 Phenol	1.43150	1.16058	1.16058	0.001	-18.92560	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.82856	0.82856	0.000	-22.15722	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.02048	1.02048	0.000	-12.34839	60.00000	Averaged
203 n-Decane	1.69067	1.17894	1.17894	0.000	-30.26796	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.19910	1.19910	0.000	-6.50966	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.19175	1.19175	0.001	-4.30833	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.09847	1.09847	0.000	-2.69597	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	1.58250	1.58250	0.000	-29.26188	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.52838	0.52838	0.000	-35.42479	60.00000	Averaged
15 o-Cresol	0.88788	0.78193	0.78193	0.000	-11.93277	60.00000	Averaged
18 m,p-Cresols	1.27893	1.00178	1.00178	0.000	-21.67010	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.78596	0.78596	0.050	-19.52676	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.46827	0.46827	0.000	-12.90759	60.00000	Averaged
21 Nitrobenzene	0.35281	0.31106	0.31106	0.000	-11.83375	60.00000	Averaged
22 Isophorone	0.67701	0.58258	0.58258	0.000	-13.94865	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.14359	0.14359	0.001	-6.09830	20.00000	Averaged ccc
24 2,4-Dimethylphenol	22.00765	40.00000	0.17708	0.000	-44.98088	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.31623	0.31623	0.000	-14.08209	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.23742	0.23742	0.001	-5.97996	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.16659	0.16659	0.000	-11.16588	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.29550	0.29550	0.000	2.23141	60.00000	Averaged
30 Naphthalene	0.98486	0.79476	0.79476	0.000	-19.30257	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.23014	0.23014	0.000	-19.04631	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.40753	0.40753	0.000	-6.20020	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.17721	0.17721	0.001	8.01114	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.25140	0.25140	0.001	-8.36934	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.51205	0.51205	0.000	-15.45399	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 16:55
Lab File ID: s6c2105.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.58910	0.51601	0.51601	0.000	-12.40785	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.22936	0.21991	0.21991	0.050	-4.11646	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.52459	0.51051	0.51051	0.000	-2.68386	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.33474	0.34583	0.34583	0.001	3.31164	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.35465	0.35514	0.35514	0.000	0.13718	60.00000	Averaged	
40	2-Chloronaphthalene	0.97365	0.89595	0.89595	0.000	-7.98001	60.00000	Averaged	
42	o-Nitroaniline	0.34201	0.26639	0.26639	0.000	-22.10984	60.00000	Averaged	
41	m-Nitroaniline	0.25409	0.21215	0.21215	0.000	-16.50876	60.00000	Averaged	
43	Dimethylphthalate	1.13004	1.08467	1.08467	0.000	-4.01476	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.27058	0.25949	0.25949	0.000	-4.09836	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.35648	0.33044	0.33044	0.000	-7.30330	60.00000	Averaged	
45	Acenaphthylene	1.54257	1.36377	1.36377	0.000	-11.59144	60.00000	Averaged	
47	Acenaphthene	1.03783	0.88922	0.88922	0.001	-14.31979	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	48.68772	40.00000	0.11881	0.050	21.71930	60.00000	Linear	spcc
49	Dibenzofuran	1.26069	1.18033	1.18033	0.000	-6.37444	60.00000	Averaged	
51	Diethylphthalate	1.10774	1.04469	1.04469	0.000	-5.69133	60.00000	Averaged	
52	4-Nitrophenol	0.19236	0.16742	0.16742	0.050	-12.96467	60.00000	Averaged	spcc
53	Fluorene	1.11781	1.01115	1.01115	0.000	-9.54196	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53621	0.53643	0.53643	0.000	0.04054	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	46.73119	40.00000	0.11068	0.000	16.82799	60.00000	Linear	
56	p-Nitroaniline	0.20835	0.17551	0.17551	0.000	-15.76024	60.00000	Averaged	
133	Diphenylamine	0.51902	0.48547	0.48547	0.001	-6.46302	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.69767	0.57245	0.57245	0.000	-17.94821	60.00000	Averaged	
61	4-Bromophenylphenylether	0.17368	0.18458	0.18458	0.000	6.27834	60.00000	Averaged	
63	Hexachlorobenzene	0.16595	0.18708	0.18708	0.000	12.72714	60.00000	Averaged	
65	Pentachlorophenol	0.09397	0.10239	0.10239	0.001	8.95779	20.00000	Averaged	ccc
206	n-Octadecane	0.48063	0.36644	0.36644	0.000	-23.75735	60.00000	Averaged	
68	Phenanthrene	0.97466	0.86751	0.86751	0.000	-10.99367	60.00000	Averaged	
69	Anthracene	0.98189	0.86532	0.86532	0.000	-11.87243	60.00000	Averaged	
72	Di-n-butylphthalate	1.13557	1.00013	1.00013	0.000	-11.92686	60.00000	Averaged	
76	Fluoranthene	0.98842	0.93683	0.93683	0.001	-5.21901	20.00000	Averaged	ccc
79	Pyrene	1.21938	1.10459	1.10459	0.000	-9.41325	60.00000	Averaged	
85	Butylbenzylphthalate	0.58998	0.51119	0.51119	0.000	-13.35426	60.00000	Averaged	
89	Benzo(a)anthracene	1.04446	0.94875	0.94875	0.000	-9.16379	60.00000	Averaged	
92	Chrysene	0.99764	0.91662	0.91662	0.000	-8.12083	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.78860	0.67230	0.67230	0.000	-14.74710	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 16:55
Lab File ID: s6c2105.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.53062	1.27015	1.27015	0.001	-17.01758	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.08744	1.04326	1.04326	0.000	-4.06318	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04328	0.99113	0.99113	0.000	-4.99890	60.00000	Averaged	
	97 Benzo(a)pyrene	0.92098	0.88547	0.88547	0.001	-3.85532	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.84510	0.78027	0.78027	0.000	-7.67189	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.68068	0.64000	0.64000	0.000	-5.97574	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.72160	0.64543	0.64543	0.000	-10.55585	60.00000	Averaged	
	126 m-Dinitrobenzene	0.19174	0.18013	0.18013	0.000	-6.05534	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27788	0.25389	0.25389	0.000	-8.63324	60.00000	Averaged	
	143 Dinoseb	47.77820	40.00000	0.16360	0.000	19.44549	60.00000	Linear	
	173 Carbazole	0.76672	0.70459	0.70459	0.000	-8.10367	60.00000	Averaged	
	184 p-Benzoquinone	0.24293	0.18226	0.18226	0.000	-24.97665	60.00000	Averaged	
	192 Methoxychlor	0.66555	0.66828	0.66828	0.000	0.41083	60.00000	Averaged	
	211 p-Toluidine	1.33748	1.22738	1.22738	0.000	-8.23170	60.00000	Averaged	
	210 m-Toluidine	1.85679	1.31370	1.31370	0.000	-29.24888	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71211	0.50810	0.50810	0.000	-28.64825	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.32071	0.28713	0.28713	0.000	-10.46797	60.00000	Averaged	
	26 Phthalic anhydride	22.21587	40.00000	0.07632	0.000	-44.46033	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.26971	0.21240	0.21240	0.000	-21.25093	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.15700	0.10365	0.10365	0.000	-33.98100	60.00000	Averaged	
M	225 Trichlorophenols	0.34470	0.35048	0.35048	0.000	1.67856	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27788	0.25389	0.25389	0.000	-8.63324	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.06536	1.01719	1.01719	0.000	-4.52134	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2105.d
Lab Smp Id: WBN100309-05.3 Client Smp ID: MEGACVS
Inj Date : 21-MAR-2010 16:55
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100309-05.3|40 PPM|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 22-Mar-2010 16:50 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.822	3.822	(1.000)	534666	40.0000	
* 29 Naphthalene-d8	136	4.687	4.687	(1.000)	1941232	40.0000	
* 46 Acenaphthene-d10	164	5.934	5.934	(1.000)	1147252	40.0000	
* 67 Phenanthrene-d10	188	7.093	7.093	(1.000)	1917801	40.0000	
* 91 Chrysene-d12	240	9.486	9.486	(1.000)	1700059	40.0000	
* 98 Perylene-d12	264	11.075	11.075	(1.000)	1455801	40.0000	
$ 3 2-Fluorophenol	112	3.005	3.005	(0.786)	513629	40.0000	34.6
$ 5 Phenol-d5	99	3.534	3.534	(0.925)	625421	40.0000	33.1
$ 20 Nitrobenzene-d5	82	4.181	4.181	(0.892)	635384	40.0000	34.2
$ 39 2-Fluorobiphenyl	172	5.422	5.422	(0.914)	1151260	40.0000	38.9
$ 60 2,4,6-Tribromophenol	329	6.522	6.522	(1.099)	129656	40.0000	40.3
$ 81 p-Terphenyl-d14	244	8.463	8.463	(0.892)	1129310	40.0000	38.1
1 N-Methyl-N-nitrosomethylamine	74	2.310	2.310	(0.604)	338349	40.0000	32.6
2 Pyridine	79	2.340	2.340	(0.612)	471770	40.0000	31.9
4 Aniline	66	3.604	3.604	(0.943)	284657	40.0000	31.8
6 Phenol	94	3.546	3.546	(0.928)	620524	40.0000	32.4
7 bis(2-Chloroethyl) ether	63	3.622	3.622	(0.948)	443004	40.0000	31.1
8 2-Chlorophenol	128	3.681	3.681	(0.963)	545614	40.0000	35.1
203 n-Decane	43	3.669	3.669	(0.960)	630339	40.0000	27.9
9 1,3-Dichlorobenzene	146	3.787	3.787	(0.991)	641119	40.0000	37.4
11 1,4-Dichlorobenzene	146	3.834	3.834	(1.003)	637190	40.0000	38.3
13 1,2-Dichlorobenzene	146	3.934	3.934	(1.029)	587313	40.0000	38.9
14 bis(2-Chloroisopropyl)ether	45	3.963	3.963	(1.037)	846108	40.0000	28.3
12 Benzyl alcohol	108	3.887	3.887	(1.017)	282509	40.0000	25.8
15 o-Cresol	107	3.940	3.940	(1.031)	418071	40.0000	35.2
18 m,p-Cresols	107	4.040	4.040	(1.057)	535619	40.0000	31.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.063	4.063	(1.063)	420228	40.0000	32.2
19 Hexachloroethane	117	4.163	4.163	(1.089)	250367	40.0000	34.8
21 Nitrobenzene	77	4.199	4.199	(0.896)	603839	40.0000	35.3
22 Isophorone	82	4.352	4.352	(0.928)	1130914	40.0000	34.4
23 2-Nitrophenol	139	4.410	4.410	(0.941)	278750	40.0000	37.6
24 2,4-Dimethylphenol	122	4.404	4.404	(0.940)	343748	40.0000	22.0(H)
25 bis(2-Chloroethoxy)methane	93	4.469	4.469	(0.954)	613883	40.0000	34.4
26 2,4-Dichlorophenol	162	4.569	4.569	(0.975)	460891	40.0000	37.6
27 Benzoic acid	105	4.463	4.463	(0.952)	323395	40.0000	35.5
28 1,2,4-Trichlorobenzene	180	4.634	4.634	(0.989)	573632	40.0000	40.9
30 Naphthalene	128	4.699	4.699	(1.002)	1542806	40.0000	32.3
204 alpha-Terpineol	59	4.681	4.681	(0.999)	446760	40.0000	32.4
31 4-Chloroaniline	127	4.716	4.716	(1.006)	791103	40.0000	37.5
32 Hexachlorobutadiene	225	4.763	4.763	(1.016)	344004	40.0000	43.2
33 4-Chloro-3-methylphenol	107	5.028	5.028	(1.073)	488020	40.0000	36.6
34 2-Methylnaphthalene	142	5.181	5.181	(1.105)	994000	40.0000	33.8
35 1-Methylnaphthalene	142	5.251	5.251	(1.120)	1001692	40.0000	35.0
36 Hexachlorocyclopentadiene	237	5.281	5.281	(0.890)	252297	40.0000	38.4
205 2,3-Dichloroaniline	161	5.375	5.375	(0.906)	585683	40.0000	38.9
37 2,4,6-Trichlorophenol	196	5.369	5.369	(0.905)	396749	40.0000	41.3
38 2,4,5-Trichlorophenol	196	5.393	5.393	(0.909)	407435	40.0000	40.0
40 2-Chloronaphthalene	162	5.528	5.528	(0.932)	1027885	40.0000	36.8
42 o-Nitroaniline	65	5.587	5.587	(0.942)	305621	40.0000	31.2
41 m-Nitroaniline	138	5.887	5.887	(0.992)	243385	40.0000	33.4
43 Dimethylphthalate	163	5.704	5.704	(0.961)	1244388	40.0000	38.4
44 2,6-Dinitrotoluene	165	5.757	5.757	(0.970)	297696	40.0000	38.4
50 2,4-Dinitrotoluene	165	6.051	6.051	(1.020)	379100	40.0000	37.1
45 Acenaphthylene	152	5.834	5.834	(0.983)	1564583	40.0000	35.4
47 Acenaphthene	154	5.957	5.957	(1.004)	1020155	40.0000	34.3
48 2,4-Dinitrophenol	184	5.957	5.957	(1.004)	136310	40.0000	48.7
49 Dibenzofuran	168	6.081	6.081	(1.025)	1354136	40.0000	37.4
51 Diethylphthalate	149	6.204	6.204	(1.046)	1198523	40.0000	37.7
52 4-Nitrophenol	139	5.975	5.975	(1.007)	192075	40.0000	34.8
53 Fluorene	166	6.340	6.340	(1.068)	1160039	40.0000	36.2
54 4-Chlorophenylphenylether	204	6.316	6.316	(1.064)	615421	40.0000	40.0
55 2-Methyl-4,6-dinitrophenol	198	6.357	6.357	(0.896)	212264	40.0000	46.7
56 p-Nitroaniline	138	6.340	6.340	(1.068)	201354	40.0000	33.7
133 Diphenylamine	169	6.404	6.404	(0.903)	931040	40.0000	37.4
58 1,2-Diphenylhydrazine	77	6.440	6.440	(0.908)	1097847	40.0000	32.8
61 4-Bromophenylphenylether	248	6.704	6.704	(0.945)	353994	40.0000	42.5
63 Hexachlorobenzene	284	6.769	6.769	(0.954)	358774	40.0000	45.1
65 Pentachlorophenol	266	6.916	6.916	(0.975)	196357	40.0000	43.6
206 n-Octadecane	57	6.916	6.916	(0.975)	702768	40.0000	30.5
68 Phenanthrene	178	7.110	7.110	(1.002)	1663705	40.0000	35.6
69 Anthracene	178	7.151	7.151	(1.008)	1659507	40.0000	35.2
72 Di-n-butylphthalate	149	7.516	7.516	(1.060)	1918050	40.0000	35.2
76 Fluoranthene	202	8.139	8.139	(1.148)	1796663	40.0000	37.9

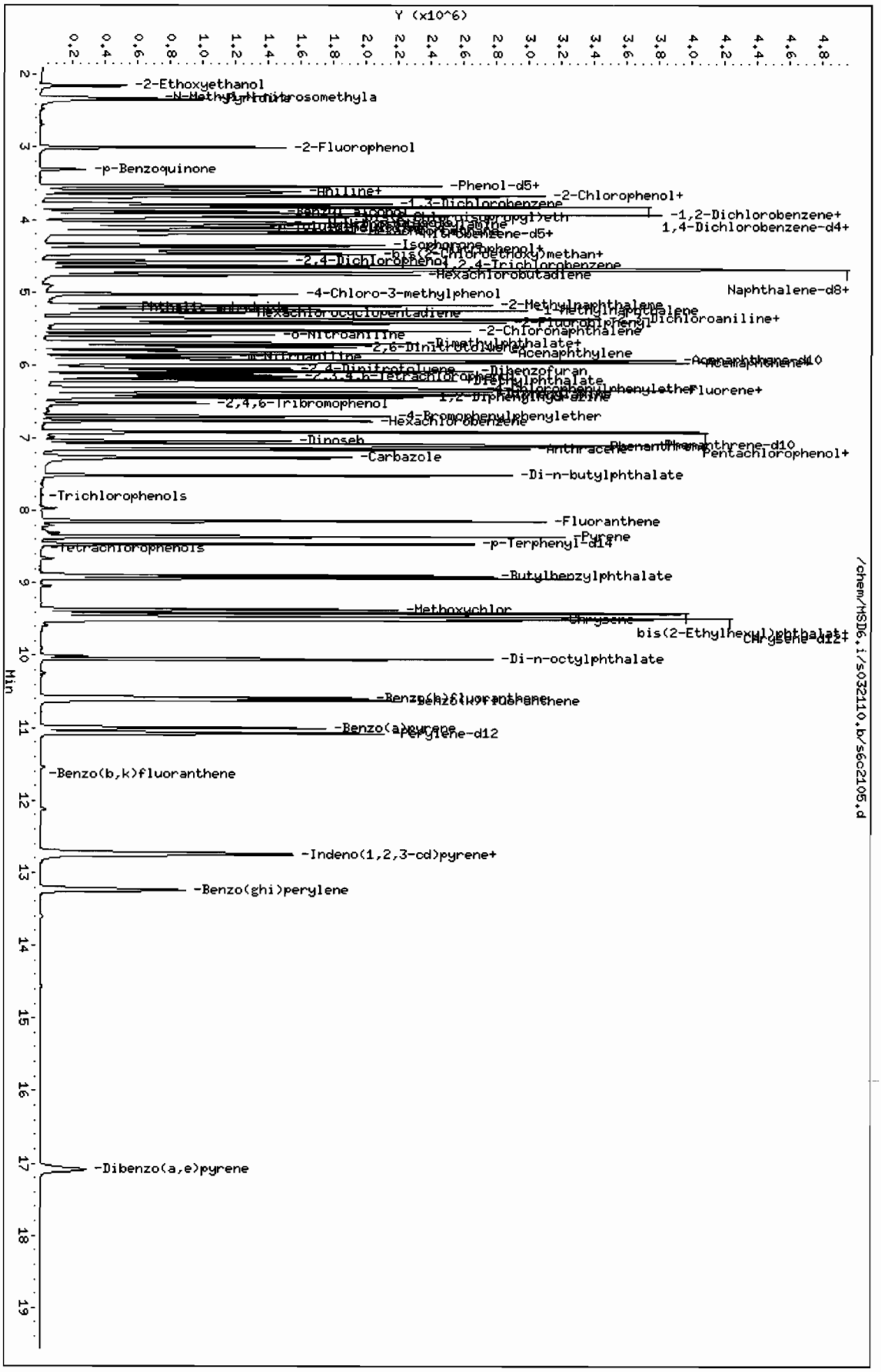
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.357	8.357	(0.881)	1877873	40.0000	36.2
85 Butylbenzylphthalate	149	8.892	8.892	(0.937)	869058	40.0000	34.6
89 Benzo(a)anthracene	228	9.475	9.475	(0.999)	1612927	40.0000	36.3
92 Chrysene	228	9.510	9.510	(1.002)	1558306	40.0000	36.8
93 bis(2-Ethylhexyl)phthalate	149	9.416	9.416	(0.993)	1142956	40.0000	34.1
94 Di-n-octylphthalate	149	10.045	10.045	(0.907)	1849079	40.0000	33.2
95 Benzo(b)fluoranthene	252	10.586	10.586	(0.956)	1518779	40.0000	38.4
96 Benzo(k)fluoranthene	252	10.622	10.622	(0.959)	1442886	40.0000	38.0
97 Benzo(a)pyrene	252	11.004	11.004	(0.994)	1289068	40.0000	38.4
99 Indeno(1,2,3-cd)pyrene	276	12.733	12.733	(1.150)	1135915	40.0000	36.9
100 Dibenzo(a,h)anthracene	278	12.751	12.751	(1.151)	931714	40.0000	37.6
101 Benzo(ghi)perylene	276	13.245	13.245	(1.196)	939619	40.0000	35.8
126 m-Dinitrobenzene	168	5.740	5.740	(0.967)	206650	40.0000	37.6
130 2,3,4,6-Tetrachlorophenol	232	6.157	6.157	(1.038)	291275	40.0000	36.5
143 Dinoseb	211	7.040	7.040	(0.993)	313751	40.0000	47.8
173 Carbazole	167	7.269	7.269	(1.025)	1351257	40.0000	36.8
184 p-Benzoquinone	54	3.310	3.310	(0.866)	97447	40.0000	30.0
192 Methoxychlor	227	9.363	9.363	(0.987)	1136120	40.0000	40.2
211 p-Toluidine	106	4.099	4.099	(1.072)	656238	40.0000	36.7
210 m-Toluidine	106	4.122	4.122	(1.078)	702389	40.0000	28.3
215 2-Ethoxyethanol	59	2.152	2.152	(0.563)	271664	40.0000	28.5
179 Dibenzo(a,e)pyrene	302	17.092	17.092	(1.543)	418010	40.0000	35.8
26 Phthalic anhydride	104	5.216	5.216	(1.113)	148158	40.0000	22.2
214 1,4-Dinitrobenzene	75	5.681	5.681	(0.957)	243672	40.0000	31.5
216 Methylenebis(2-chloroaniline)	231	9.422	9.422	(0.993)	176211	40.0000	26.4
M 225 Trichlorophenols	196				804184	80.0000	81.3
M 226 Tetrachlorophenols	232				291275	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2961665	80.0000	76.4

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032110.b/s6c2105.d
Date : 21-MAR-2010 16:55
Client ID: MEGACVS
Sample Info: IWBM100309-05,3|40 PPM|1|SVM|1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 17:25
Lab File ID: s6c2106.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.82971	0.82971	0.000	-13.58644	60.00000	Averaged
16 Acetophenone	1.24814	1.10817	1.10817	0.000	-11.21462	60.00000	Averaged
189 Caprolactam	0.09790	0.08510	0.08510	0.000	-13.06826	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.03258	1.03258	0.000	-7.12590	60.00000	Averaged
207 Atrazine	0.04606	0.04307	0.04307	0.000	-6.48930	60.00000	Averaged
77 Benzidine	0.42058	0.32338	0.32338	0.000	-23.11220	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.30501	0.30501	0.000	1.08782	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.31412	0.31412	0.000	-10.55380	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.17904	0.17904	0.000	-5.66374	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.70443	0.70443	0.000	-14.83028	60.00000	Averaged
105 2-Picoline	1.21280	1.07113	1.07113	0.000	-11.68111	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.43620	0.43620	0.000	-18.93719	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.50777	0.50777	0.000	-14.98385	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.46036	0.46036	0.000	-15.43237	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.58375	0.58375	0.000	-19.57389	60.00000	Averaged
110 Pentachloroethane	0.33314	0.32493	0.32493	0.000	-2.46565	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.48322	0.48322	0.000	-17.32271	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.56865	0.56865	0.000	-16.47190	60.00000	Averaged
114 o-Toluidine	1.73474	1.53414	1.53414	0.000	-11.56395	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.13579	0.13579	0.000	-11.60327	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.69602	0.69602	0.000	-20.32165	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.22751	0.22751	0.000	-7.26428	60.00000	Averaged
119 Hexachloropropene	0.13311	0.13428	0.13428	0.000	0.88136	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.26583	0.26583	0.000	-12.45526	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.21147	0.21147	0.000	-19.53920	60.00000	Averaged
122 Safrole	0.21396	0.20376	0.20376	0.000	-4.76733	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.45265	0.45265	0.000	1.22739	60.00000	Averaged
124 Isosafrole	0.35324	0.30917	0.30917	0.000	-12.47602	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.31757	0.31757	0.000	-7.28919	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.38944	0.38944	0.000	3.80820	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.77893	0.77893	0.000	-13.38571	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.83899	0.83899	0.000	-10.82941	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.25938	0.25938	0.000	-15.41355	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.13028	0.13028	0.000	-16.56095	60.00000	Averaged
137 Phenacetin	0.29347	0.24455	0.24455	0.000	-16.66896	60.00000	Averaged
138 Diallate	0.24862	0.21271	0.21271	0.000	-14.44434	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-MAR-2010 17:25
Lab File ID: s6c2106.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.22085	0.22085	0.000	-23.62867	60.00000	Averaged
213 Trans Diallate	0.29250	0.25025	0.25025	0.000	-14.44434	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.46267	0.46267	0.000	-15.97776	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.06834	0.06834	0.000	2.08638	60.00000	Averaged
142 Pronamide	0.26094	0.25459	0.25459	0.000	-2.43292	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02770	0.02770	0.000	-3.78261	60.00000	Averaged
147 Methapyrilene	0.43748	0.35715	0.35715	0.000	-18.36230	60.00000	Averaged
148 Isodrin	0.11028	0.10820	0.10820	0.000	-1.88610	60.00000	Averaged
149 Aramite	0.04746	0.04501	0.04501	0.000	-5.16338	60.00000	Averaged
150 Kepone	0.07668	0.07686	0.07686	0.000	0.23499	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.25155	0.25155	0.000	-18.93676	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.28379	0.28379	0.000	-3.70640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.55013	0.55013	0.000	-7.30690	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.35273	0.35273	0.000	1.21131	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.44976	0.44976	0.000	-7.35187	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.39792	0.39792	0.000	-0.54712	60.00000	Averaged

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Data file : /chem/MSD6.i/s032110.b/s6c2106.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 21-MAR-2010 17:25
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100312-03.3|40 PPM|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 22-Mar-2010 16:46 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpc1p1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.828	3.828	(1.000)	416421	40.0000	
* 29 Naphthalene-d8	136	4.692	4.692	(1.000)	1419043	40.0000	
* 46 Acenaphthene-d10	164	5.939	5.939	(1.000)	898081	40.0000	
* 67 Phenanthrene-d10	188	7.098	7.098	(1.000)	1555023	40.0000	
* 91 Chrysene-d12	240	9.492	9.492	(1.000)	1427556	40.0000	
* 98 Perylene-d12	264	11.086	11.086	(1.000)	1248253	40.0000	
209 Benzaldehyde	77	3.557	3.557	(0.929)	345508	40.0000	34.6
16 Acetophenone	105	4.081	4.081	(1.066)	461465	40.0000	35.5(H)
189 Caprolactam	113	4.963	4.963	(1.058)	120764	40.0000	34.8
208 1,1'-Biphenyl	154	5.510	5.510	(0.928)	927339	40.0000	37.1
207 Atrazine	173	6.810	6.810	(0.959)	66972	40.0000	37.4
77 Benzidine	184	8.245	8.245	(0.869)	461638	40.0000	30.8
90 3,3'-Dichlorobenzidine	252	9.433	9.433	(0.994)	435412	40.0000	40.4(H)
102 1,4-Dioxane	88	2.163	2.163	(0.565)	130807	40.0000	35.8
103 Methyl methacrylate	100	2.157	2.157	(0.564)	74558	40.0000	37.7
104 Ethyl methacrylate	69	2.534	2.534	(0.662)	293339	40.0000	34.1
105 2-Picoline	93	2.728	2.728	(0.713)	446040	40.0000	35.3
106 N-Nitrosomethylethylamine	88	2.769	2.769	(0.723)	181643	40.0000	32.4
107 Methyl methanesulfonate	80	2.928	2.928	(0.765)	211445	40.0000	34.0
108 N-Nitrosodiethylamine	102	3.163	3.163	(0.826)	191705	40.0000	33.8
109 Ethyl Methanesulfonate	79	3.316	3.316	(0.866)	243087	40.0000	32.2(H)
110 Pentachloroethane	167	3.651	3.651	(0.954)	135307	40.0000	39.0
111 N-Nitrosopyrrolidine	100	4.069	4.069	(1.063)	201222	40.0000	33.1(Q)
113 N-Nitrosomorpholine	56	4.087	4.087	(1.068)	236796	40.0000	33.4(H)
114 o-Toluidine	106	4.104	4.104	(1.072)	638847	40.0000	35.4(H)
115 N-Nitrosopiperidine	114	4.304	4.304	(0.917)	192697	40.0000	35.4

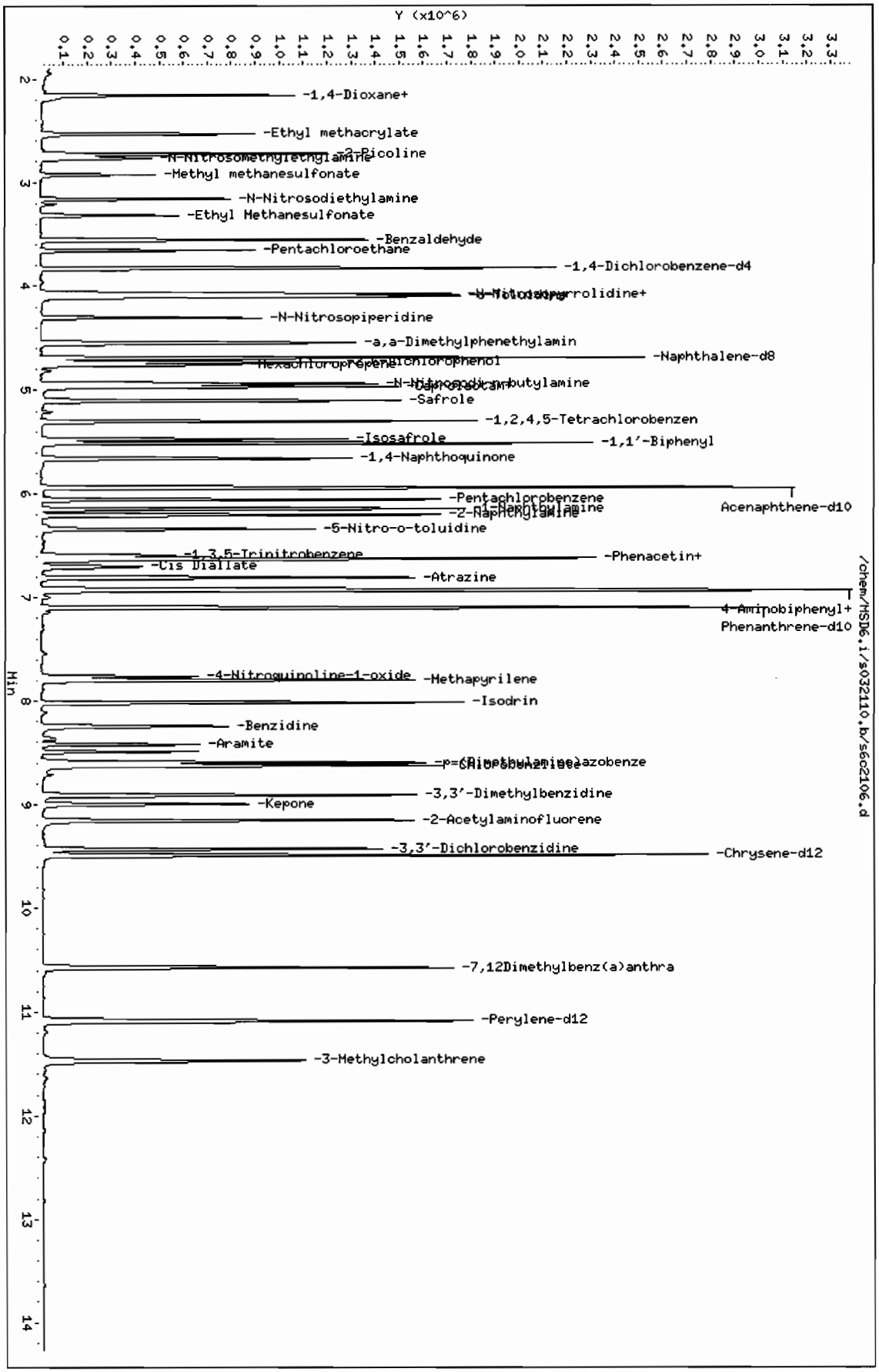
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.551	4.551	(0.970)	987678	40.0000	31.9
118 2,6-Dichlorophenol	162	4.734	4.734	(1.009)	322848	40.0000	37.1
119 Hexachloropropene	213	4.757	4.757	(1.014)	190551	40.0000	40.4
120 p-Phenylenediamine	108	4.969	4.969	(1.059)	377228	40.0000	35.0
121 N-Nitrosodi-n-butylamine	84	4.939	4.939	(1.053)	300085	40.0000	32.2(QH)
122 Safrole	162	5.104	5.104	(1.088)	289146	40.0000	38.1
123 1,2,4,5-Tetrachlorobenzene	216	5.304	5.304	(0.893)	406513	40.0000	40.5
124 Isosafrole	162	5.469	5.469	(0.921)	277661	40.0000	35.0(H)
125 1,4-Naphthoquinone	158	5.657	5.657	(0.952)	285204	40.0000	37.1
127 Pentachlorobenzene	250	6.051	6.051	(1.019)	349749	40.0000	41.5(H)
128 1-Naphthylamine	143	6.145	6.145	(1.035)	699545	40.0000	34.6(H)
129 2-Naphthylamine	143	6.198	6.198	(1.044)	753485	40.0000	35.7(H)
131 5-Nitro-o-toluidine	152	6.339	6.339	(1.067)	232945	40.0000	33.8(H)
136 1,3,5-Trinitrobenzene	75	6.592	6.592	(0.929)	202581	40.0000	33.4
137 Phenacetin	108	6.633	6.633	(0.935)	380284	40.0000	33.3(QH)
138 Diallate	86	6.616	6.616	(0.932)	330771	40.0000	34.2(H)
212 Cis Diallate	86	6.692	6.692	(0.943)	51514	6.00000	4.6
213 Trans Diallate	86	6.616	6.616	(0.932)	330771	34.0000	29.1(H)
140 4-Aminobiphenyl	169	6.922	6.922	(0.975)	719467	40.0000	33.6
141 Pentachloronitrobenzene	237	6.933	6.933	(0.977)	106278	40.0000	40.8(Q)
142 Pronamide	173	6.933	6.933	(0.977)	395889	40.0000	39.0(H)
146 4-Nitroquinoline-1-oxide	101	7.763	7.763	(1.094)	43080	40.0000	38.5(H)
147 Methapyrilene	58	7.798	7.798	(1.099)	555374	40.0000	32.6(H)
148 Isodrin	193	8.016	8.016	(1.129)	168246	40.0000	39.2(H)
149 Aramite	185	8.422	8.422	(1.186)	69984	40.0000	37.9(H)
150 Kepone	272	8.998	8.998	(1.268)	119519	40.0000	40.1
151 p-(Dimethylamino)azobenzene	120	8.598	8.598	(0.906)	359103	40.0000	32.4(H)
152 Chlorobenzilate	251	8.627	8.627	(0.909)	405130	40.0000	38.5
153 3,3'-Dimethylbenzidine	212	8.910	8.910	(0.939)	785344	40.0000	37.1(H)
155 2-Acetylaminofluorene	181	9.157	9.157	(0.965)	503546	40.0000	40.5
157 7,12Dimethylbenz(a)anthracene	256	10.574	10.574	(0.954)	561409	40.0000	37.0(H)
158 3-Methylcholanthrene	268	11.468	11.468	(1.034)	496699	40.0000	39.8(QH)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032110.b/s6c2106.d
Date : 21-MAR-2010 17:25
Client ID: APCVS
Sample Info: IWBN100312-03.3140 PPM!!SVM!!APCVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20



Page 1

QC Data

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

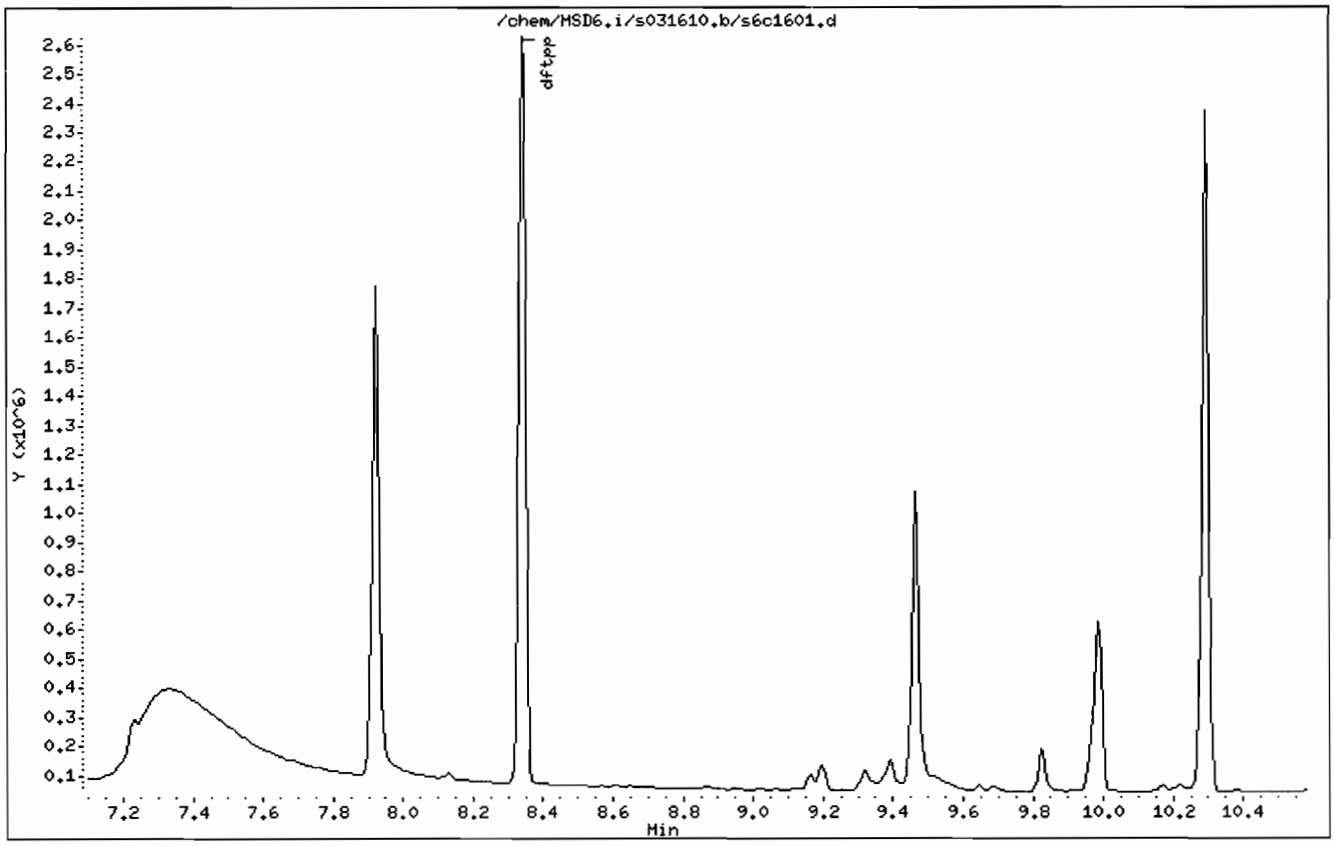
Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

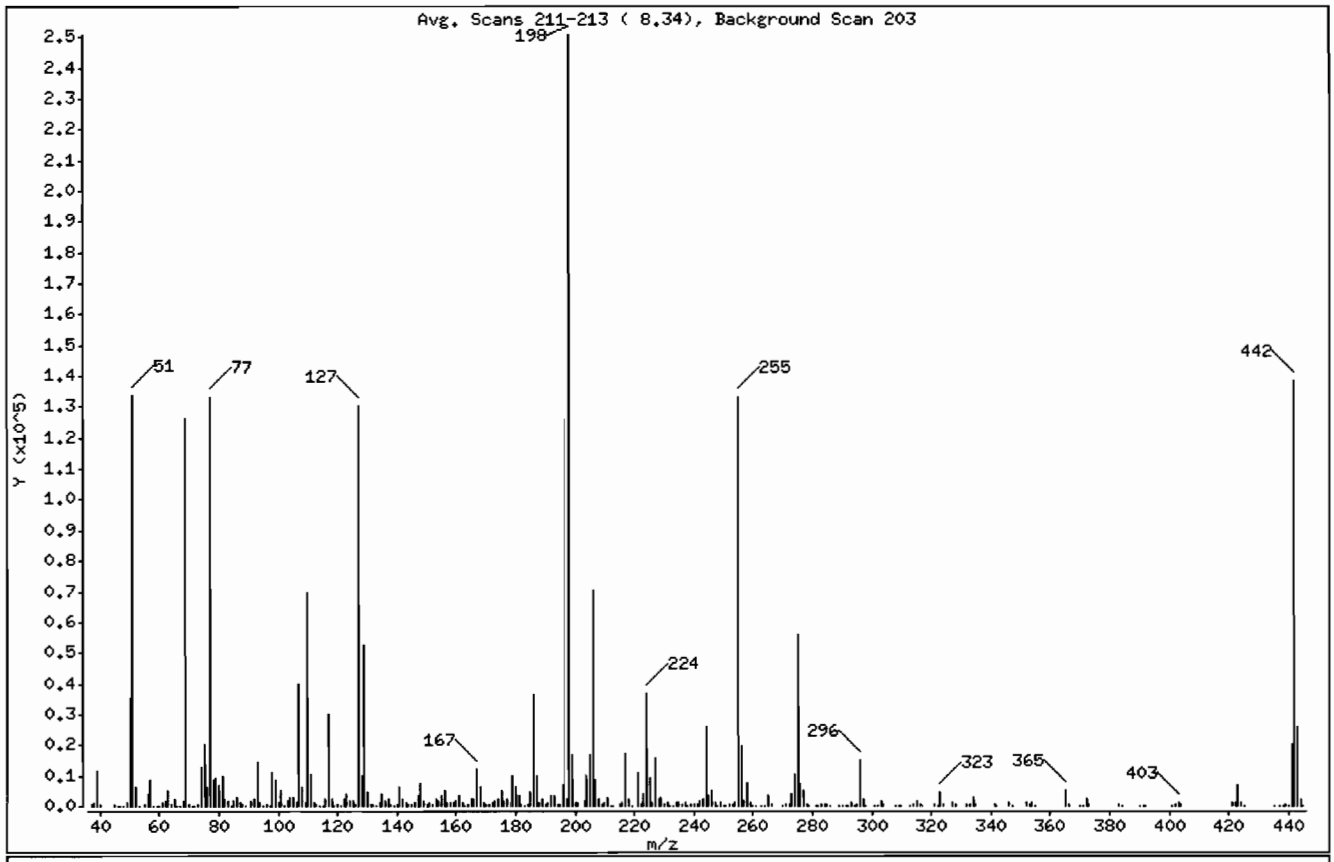
Sample Info: |WBN100306-01,2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.30
68	Less than 2.00% of mass 69	0.78 (1.54)
69	Mass 69 relative abundance	50.41
70	Less than 2.00% of mass 69	0.28 (0.56)
127	40.00 - 60.00% of mass 198	52.01
197	Less than 1.00% of mass 198	0.84
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	22.34
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	8.03
442	Greater than 40.00% of mass 198	55.21
443	17.00 - 23.00% of mass 442	10.46 (18.94)

Date : 16-MAR-2010 08:42

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	539	120.00	690	197.00	2101	282.00	175
38.00	1021	121.00	284	198.00	250688	283.00	581
39.00	11554	122.00	2497	199.00	16920	284.00	435
40.00	474	123.00	4070	200.00	1419	285.00	830
45.00	300	124.00	1835	201.00	1008	286.00	97
46.00	46	125.00	1582	203.00	2006	289.00	199
47.00	60	126.00	769	204.00	9820	290.00	99
48.00	25	127.00	130384	205.00	16848	291.00	153
49.00	905	128.00	9814	206.00	70072	292.00	220
50.00	35064	129.00	52280	207.00	8715	293.00	1013
51.00	133568	130.00	4484	208.00	2324	294.00	236
52.00	6515	131.00	816	209.00	743	295.00	313
53.00	284	132.00	347	210.00	990	296.00	14707
55.00	376	133.00	28	211.00	2712	297.00	2266
56.00	3828	134.00	1402	212.00	148	298.00	198
57.00	8839	135.00	3990	213.00	284	301.00	142
58.00	228	136.00	1606	215.00	822	302.00	270
59.00	27	137.00	2099	216.00	1420	303.00	1812
60.00	108	138.00	482	217.00	17528	304.00	512
61.00	1396	139.00	258	218.00	2263	308.00	203
62.00	1919	140.00	663	219.00	261	309.00	114
63.00	5112	141.00	6250	221.00	11113	310.00	110
64.00	635	142.00	2224	222.00	580	313.00	93
65.00	2325	143.00	1420	223.00	3783	314.00	744
66.00	149	144.00	488	224.00	36608	315.00	1650
67.00	103	145.00	350	225.00	8974	316.00	843
68.00	1952	146.00	1154	226.00	893	317.00	116
69.00	126368	147.00	3460	227.00	15730	321.00	466
70.00	702	148.00	7480	228.00	2314	322.00	243
71.00	66	149.00	1592	229.00	3106	323.00	4480
72.00	95	150.00	434	230.00	397	324.00	777
73.00	837	151.00	889	231.00	1211	327.00	865
74.00	12548	152.00	496	232.00	91	328.00	383
75.00	20072	153.00	2051	233.00	286	332.00	333
76.00	6493	154.00	1643	234.00	1082	333.00	429

Date : 16-MAR-2010 08:42

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01,2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	133056	155.00	3537	235.00	1238	334.00	2708
78.00	8864	156.00	5472	236.00	768	335.00	749
79.00	8991	157.00	1057	237.00	1331	341.00	581
80.00	6867	158.00	1121	238.00	239	342.00	43
81.00	9608	159.00	928	239.00	633	346.00	972
82.00	2327	160.00	1972	240.00	459	347.00	145
83.00	1949	161.00	3180	241.00	862	352.00	1224
84.00	261	162.00	886	242.00	1802	353.00	739
85.00	1469	163.00	271	243.00	2025	354.00	1267
86.00	2809	164.00	438	244.00	26176	355.00	268
87.00	1114	165.00	2425	245.00	3604	365.00	5468
88.00	433	166.00	2061	246.00	5257	366.00	789
89.00	231	167.00	12297	247.00	1192	370.00	107
91.00	1935	168.00	6571	248.00	227	371.00	268
92.00	2326	169.00	1233	249.00	956	372.00	2160
93.00	14334	170.00	433	250.00	234	373.00	460
94.00	1077	171.00	659	251.00	256	383.00	543
95.00	133	172.00	1265	252.00	384	384.00	118
96.00	674	173.00	1486	253.00	717	390.00	253
97.00	121	174.00	2557	254.00	1407	391.00	132
98.00	11118	175.00	5058	255.00	133184	392.00	111
99.00	8880	176.00	1554	256.00	19792	401.00	115
100.00	944	177.00	2489	257.00	1568	402.00	760
101.00	5006	178.00	902	258.00	7663	403.00	1027
102.00	281	179.00	9717	259.00	1235	404.00	326
103.00	1616	180.00	6606	260.00	239	421.00	927
104.00	3089	181.00	3260	261.00	257	422.00	875
105.00	2736	182.00	564	263.00	87	423.00	6945
106.00	1065	183.00	288	264.00	119	424.00	1275
107.00	39496	184.00	841	265.00	3196	425.00	105
108.00	6480	185.00	4847	266.00	506	435.00	219
109.00	1157	186.00	36512	270.00	248	437.00	226
110.00	69912	187.00	10075	271.00	298	438.00	232
111.00	10462	188.00	1064	272.00	473	439.00	357
112.00	1431	189.00	2374	273.00	3934	440.00	227

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	400	190.00	463	274.00	10466	441.00	20128
114.00	154	191.00	1185	275.00	55992	442.00	138368
115.00	109	192.00	3223	276.00	7246	443.00	26216
116.00	2178	193.00	3395	277.00	4967	444.00	2405
117.00	30184	194.00	756	278.00	826	445.00	105
118.00	2298	195.00	517	279.00	213		
119.00	256	196.00	7034	281.00	100		

Data File: /chem/MSD6.i/s031610.b/s6c1613.d

Page 1

Date : 16-MAR-2010 16:06

Client ID: DFTPP

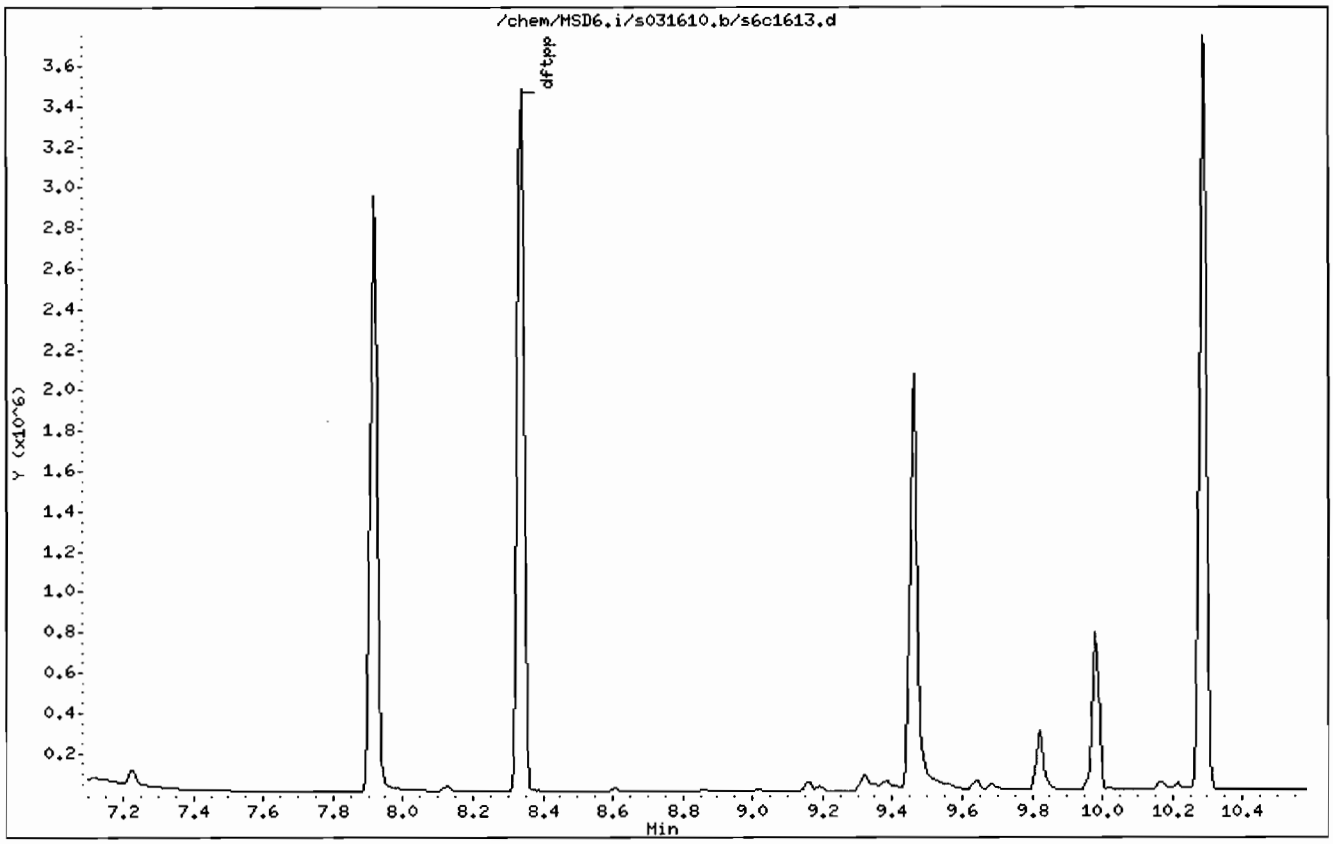
Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVHF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Data File: /chem/MSD6.i/s031610.b/s6c1613.d

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

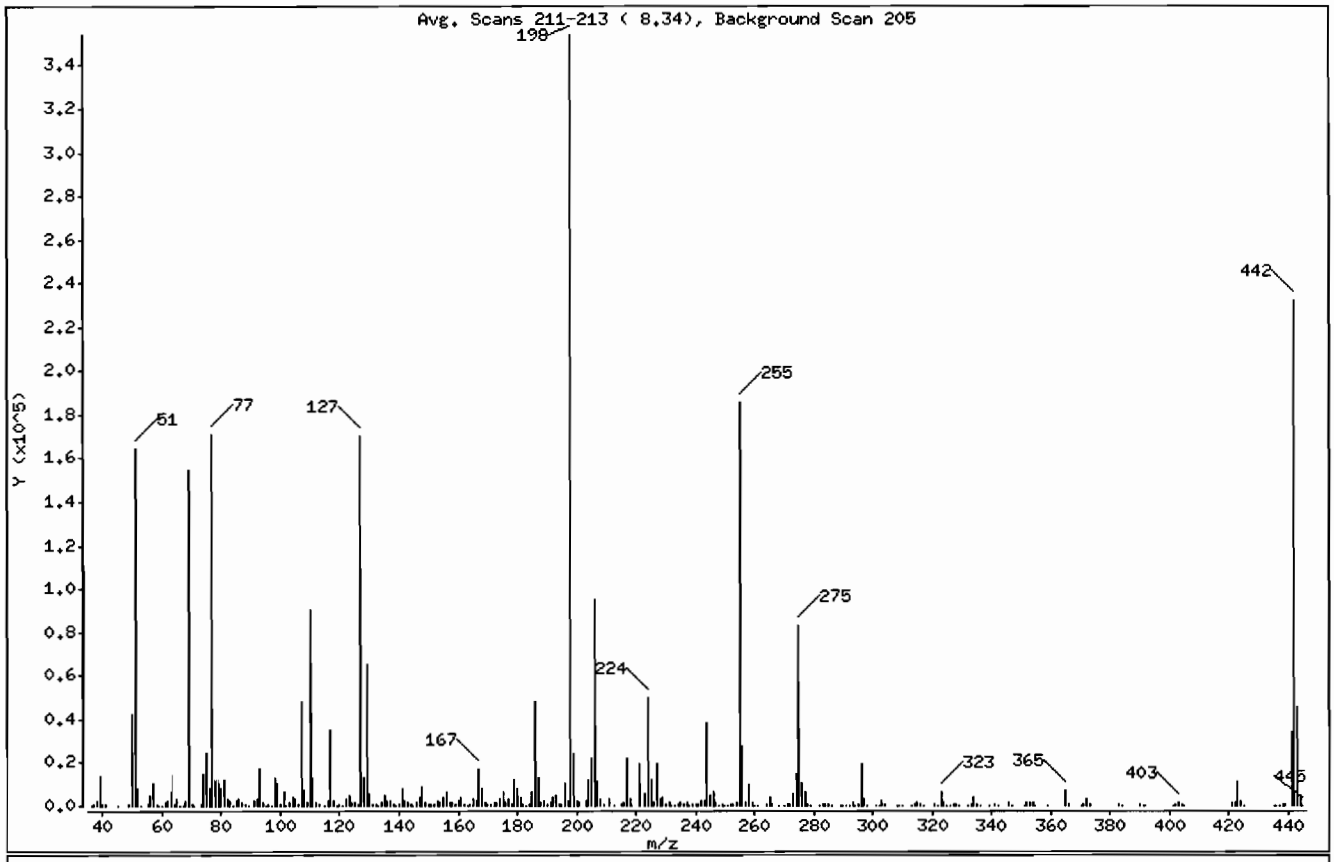
Sample Info: IWBN100306-01,2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.37
68	Less than 2.00% of mass 69	0.69 (1.58)
69	Mass 69 relative abundance	43.77
70	Less than 2.00% of mass 69	0.27 (0.61)
127	40.00 - 60.00% of mass 198	48.16
197	Less than 1.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.06
441	Present, but less than mass 443	9.55
442	Greater than 40.00% of mass 198	65.47
443	17.00 - 23.00% of mass 442	12.86 (19.65)

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	365	123.00	4688	200.00	2049	291.00	95
37.00	686	124.00	1969	201.00	1887	292.00	268
38.00	2219	125.00	2034	203.00	2289	293.00	1469
39.00	14217	126.00	969	204.00	12413	294.00	360
40.00	662	127.00	170560	205.00	22120	295.00	415
41.00	451	128.00	12972	206.00	94880	296.00	19192
45.00	343	129.00	65336	207.00	11802	297.00	2923
49.00	1033	130.00	5614	208.00	3327	298.00	205
50.00	42256	131.00	1072	209.00	988	301.00	261
51.00	164224	132.00	586	211.00	3614	302.00	347
52.00	8273	133.00	265	213.00	247	303.00	2358
53.00	361	134.00	1727	215.00	826	304.00	634
55.00	615	135.00	4970	216.00	1782	308.00	279
56.00	4569	136.00	2207	217.00	22368	309.00	172
57.00	10965	137.00	2269	218.00	2954	310.00	279
58.00	541	138.00	648	219.00	312	313.00	172
59.00	160	139.00	341	221.00	19520	314.00	916
60.00	185	140.00	679	223.00	5297	315.00	2018
61.00	1949	141.00	7898	224.00	49688	316.00	1164
62.00	2059	142.00	2664	225.00	12403	317.00	239
63.00	6240	143.00	1748	226.00	1307	321.00	668
64.00	905	144.00	480	227.00	19504	322.00	322
65.00	3077	145.00	407	228.00	2871	323.00	6305
66.00	225	146.00	1518	229.00	4196	324.00	1298
67.00	216	147.00	4305	230.00	634	325.00	44
68.00	2445	148.00	9003	231.00	1804	326.00	156
69.00	155008	149.00	1778	232.00	342	327.00	1043
70.00	947	150.00	449	233.00	316	328.00	530
71.00	201	151.00	1098	234.00	1167	329.00	108
73.00	1127	152.00	658	235.00	1577	332.00	394
74.00	14976	153.00	2511	236.00	873	333.00	734
75.00	24336	154.00	1999	237.00	1570	334.00	3934
76.00	8200	155.00	4297	238.00	231	335.00	1090
77.00	171200	156.00	6528	239.00	790	336.00	90
78.00	11711	157.00	1348	240.00	604	339.00	45

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	10991	158.00	1467	241.00	1051	341.00	791
80.00	8089	159.00	1196	242.00	2678	342.00	112
81.00	12006	160.00	2557	243.00	2830	346.00	1303
82.00	3062	161.00	3725	244.00	38552	347.00	236
83.00	2754	162.00	1103	245.00	5015	351.00	51
84.00	311	163.00	384	246.00	6837	352.00	1714
85.00	2148	164.00	520	247.00	1386	353.00	1258
86.00	2960	165.00	2927	248.00	316	354.00	1807
87.00	1512	166.00	2460	249.00	1167	355.00	303
88.00	490	167.00	16936	250.00	324	359.00	50
89.00	261	168.00	7860	251.00	332	365.00	7286
91.00	2590	169.00	1424	252.00	511	366.00	1134
92.00	2914	170.00	561	253.00	815	370.00	153
93.00	17192	171.00	668	254.00	1800	371.00	455
94.00	1273	172.00	1340	255.00	185344	372.00	2898
95.00	330	173.00	1876	256.00	27576	373.00	675
96.00	904	174.00	3377	257.00	1895	383.00	836
97.00	358	175.00	6789	258.00	10115	384.00	240
98.00	12960	176.00	2015	259.00	1699	390.00	414
99.00	10708	177.00	3013	260.00	258	391.00	350
100.00	942	178.00	1036	261.00	383	392.00	234
101.00	6393	179.00	11838	264.00	435	401.00	184
102.00	360	180.00	8500	265.00	3865	402.00	1191
103.00	1979	181.00	4159	266.00	588	403.00	1692
104.00	4113	182.00	603	268.00	160	404.00	639
105.00	3560	183.00	335	270.00	275	405.00	87
106.00	1067	184.00	1026	271.00	443	421.00	1562
107.00	48096	185.00	6230	272.00	556	422.00	1423
108.00	7432	186.00	48112	273.00	5738	423.00	11200
109.00	1348	187.00	13352	274.00	15003	424.00	2246
110.00	90080	188.00	1313	275.00	82816	425.00	236
111.00	13316	189.00	2686	276.00	10769	435.00	42
112.00	1579	190.00	445	277.00	6686	436.00	161
113.00	490	191.00	1473	278.00	1075	437.00	275
115.00	181	192.00	4225	279.00	229	438.00	434

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2631	193.00	4772	282.00	109	439.00	605
117.00	34760	194.00	868	283.00	778	441.00	33840
118.00	2557	195.00	649	284.00	498	442.00	231872
119.00	366	196.00	10847	285.00	1031	443.00	45560
120.00	634	197.00	2536	286.00	215	444.00	4334
121.00	221	198.00	354176	289.00	202	445.00	211
122.00	3127	199.00	24520	290.00	227		

Data File: /chem/MSD6.i/s032110.b/s6c2104.d

Date : 21-MAR-2010 16:41

Client ID: DFTPP

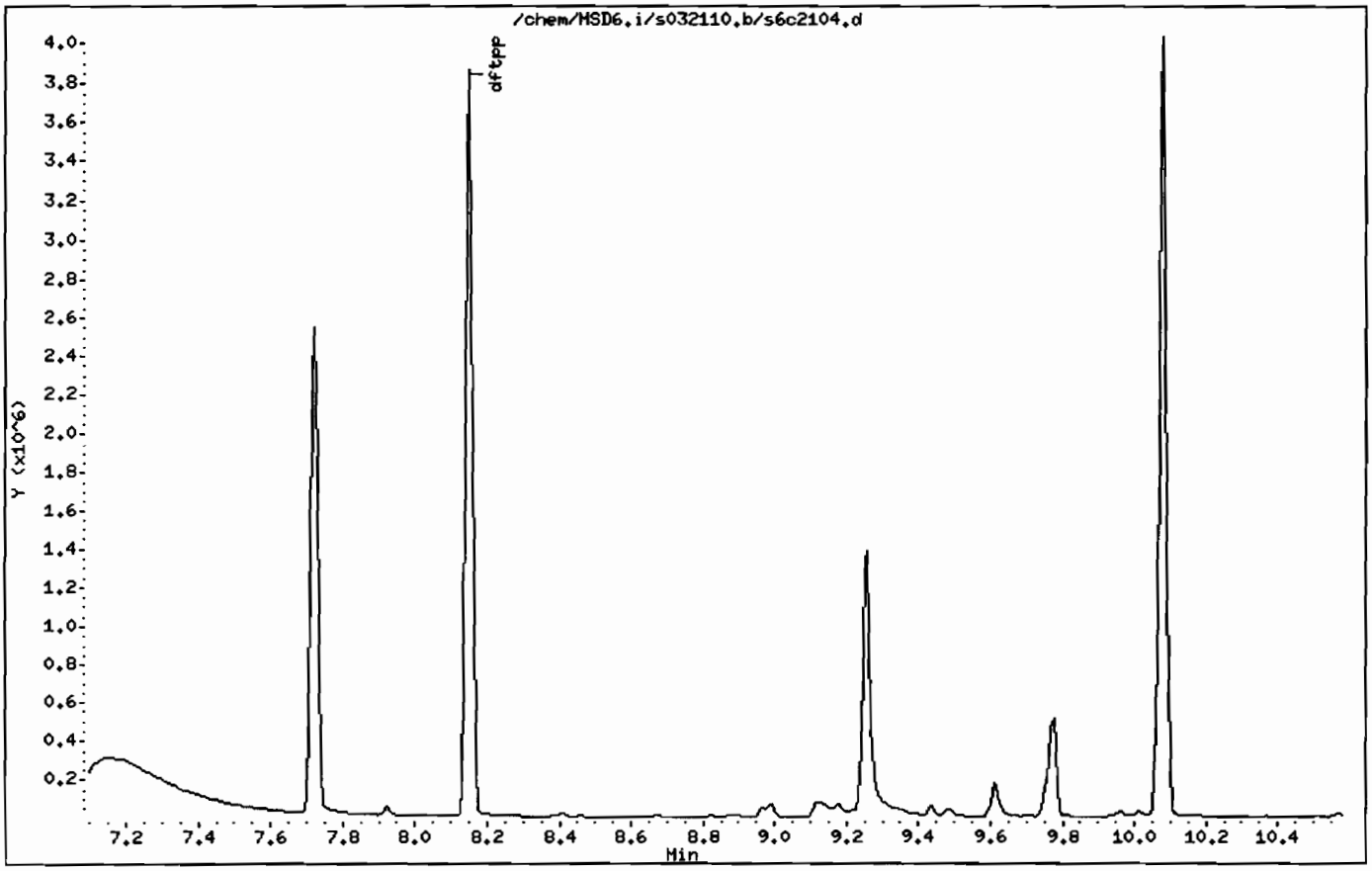
Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Data File: /chem/MSD6.i/s032110.b/s6c2104.d

Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: MSD6.i

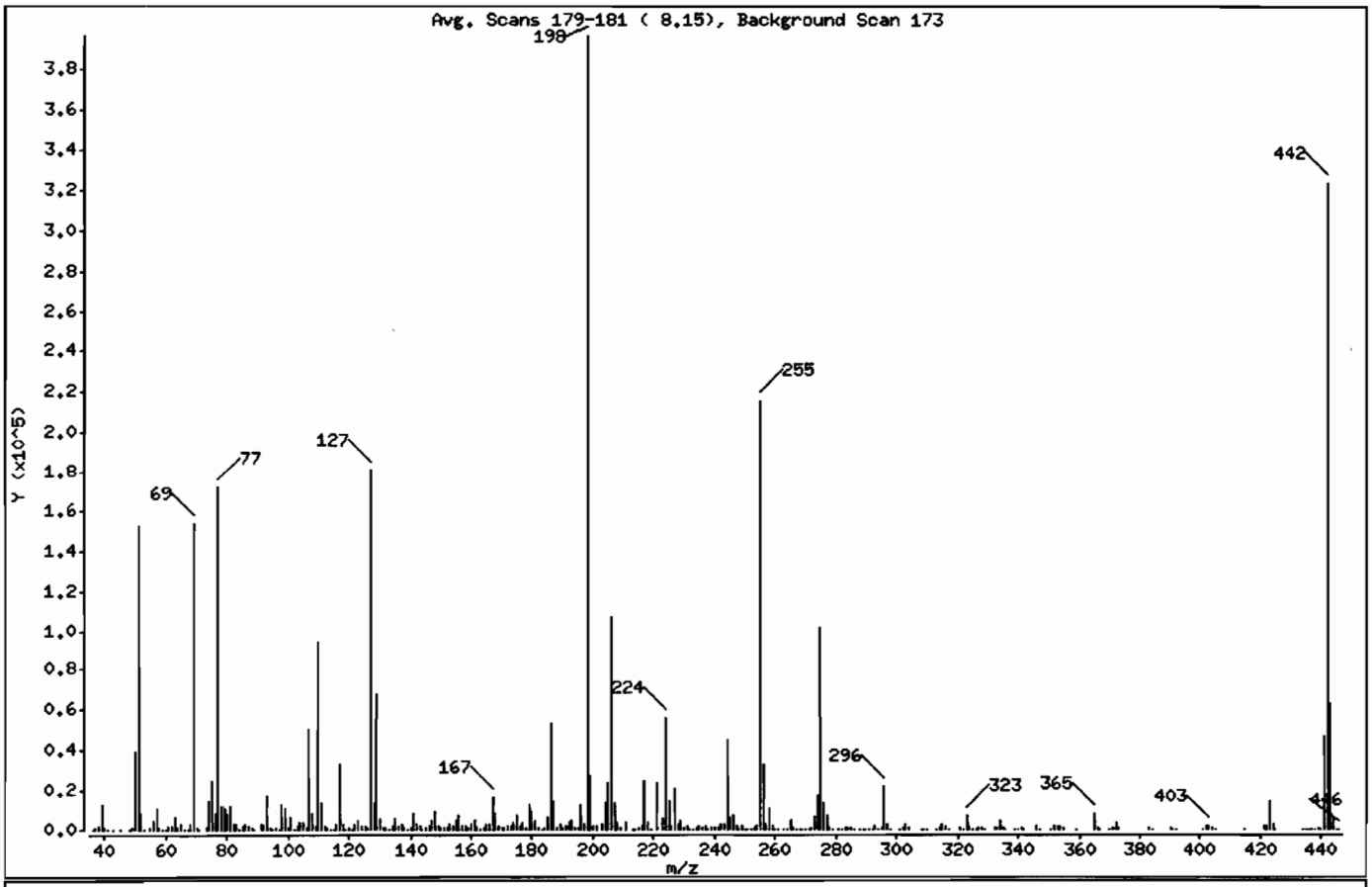
Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.47
68	Less than 2.00% of mass 69	0.68 (1.75)
69	Mass 69 relative abundance	38.77
70	Less than 2.00% of mass 69	0.19 (0.50)
127	40.00 - 60.00% of mass 198	45.57
197	Less than 1.00% of mass 198	0.68
199	5.00 - 9.00% of mass 198	6.81
275	10.00 - 30.00% of mass 198	25.52
365	Greater than 1.00% of mass 198	2.19
441	Present, but less than mass 443	11.82
442	Greater than 40.00% of mass 198	81.56
443	17.00 - 23.00% of mass 442	15.88 (19.47)

Data File: /chem/MSD6.i/s032110.b/s6c2104.d

Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c2104.d

Spectrum: Avg. Scans 179-181 (8.15), Background Scan 173

Location of Maximum: 198.00

Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	81	124.00	2103	206.00	106904	294.00	441
37.00	701	125.00	2083	207.00	13526	295.00	528
38.00	2017	126.00	1001	208.00	3236	296.00	22152
39.00	13113	127.00	180800	209.00	1048	297.00	3023
40.00	721	128.00	13793	211.00	4008	298.00	238
41.00	323	129.00	67928	213.00	342	301.00	347
43.00	108	130.00	5779	214.00	46	302.00	474
45.00	374	131.00	1109	215.00	1032	303.00	2864
48.00	46	132.00	699	216.00	2047	304.00	871
49.00	985	133.00	201	217.00	24688	308.00	309
50.00	39480	134.00	1871	218.00	3230	309.00	206
51.00	152576	135.00	5321	219.00	327	310.00	277
52.00	7867	136.00	2003	221.00	23536	313.00	222
53.00	419	137.00	2686	223.00	5923	314.00	1161
55.00	694	138.00	600	224.00	56112	315.00	2782
56.00	4494	139.00	368	225.00	14430	316.00	1473
57.00	10715	140.00	930	226.00	1519	317.00	280
58.00	494	141.00	8108	227.00	21160	321.00	677
59.00	249	142.00	2647	228.00	3059	322.00	415
60.00	119	143.00	1758	229.00	4754	323.00	7650
61.00	1957	144.00	446	230.00	699	324.00	1496
62.00	2013	145.00	518	231.00	2157	325.00	169
63.00	6340	146.00	1555	232.00	404	326.00	165
64.00	752	147.00	4264	233.00	428	327.00	1303
65.00	2875	148.00	9072	234.00	1261	328.00	778
66.00	220	149.00	1980	235.00	1544	329.00	103
67.00	132	150.00	587	236.00	1150	332.00	521
68.00	2688	151.00	1159	237.00	1996	333.00	737
69.00	153792	152.00	833	238.00	260	334.00	4836
70.00	771	153.00	2762	239.00	819	335.00	1281
71.00	222	154.00	2099	240.00	649	336.00	159
73.00	1309	155.00	4846	241.00	1308	339.00	184
74.00	14751	156.00	7246	242.00	2736	340.00	91
75.00	24712	157.00	1548	243.00	2993	341.00	758
76.00	8555	158.00	1676	244.00	44400	342.00	259

Data File: /chem/MSD6.i/s032110.b/s6c2104.d

Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c2104.d

Spectrum: Avg. Scans 179-181 (8.15), Background Scan 173

Location of Maximum: 198.00

Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	171648	159.00	1236	245.00	6054	346.00	1510
78.00	11757	160.00	2531	246.00	7582	347.00	324
79.00	10956	161.00	4313	247.00	1498	351.00	170
80.00	8503	162.00	1187	248.00	365	352.00	2239
81.00	12214	163.00	359	249.00	1500	353.00	1538
82.00	2874	164.00	508	250.00	345	354.00	2281
83.00	2924	165.00	3049	251.00	393	355.00	593
84.00	185	166.00	2867	252.00	422	359.00	91
85.00	1986	167.00	16656	253.00	1010	365.00	8679
86.00	3188	168.00	7776	254.00	1796	366.00	1364
87.00	1516	169.00	1508	255.00	215808	367.00	86
88.00	617	170.00	575	256.00	32600	370.00	187
89.00	319	171.00	781	257.00	2512	371.00	597
91.00	2520	172.00	1632	258.00	11031	372.00	3461
92.00	3011	173.00	1920	259.00	1735	373.00	960
93.00	17104	174.00	3473	260.00	323	383.00	1078
94.00	1210	175.00	7097	261.00	372	384.00	311
95.00	257	176.00	2135	263.00	101	390.00	538
96.00	1159	177.00	3606	264.00	335	391.00	375
97.00	432	178.00	1281	265.00	4531	392.00	214
98.00	12656	179.00	12835	266.00	568	401.00	269
99.00	10579	180.00	9029	267.00	156	402.00	1389
100.00	984	181.00	4583	268.00	139	403.00	2077
101.00	6389	182.00	760	269.00	120	404.00	771
102.00	405	183.00	349	270.00	342	405.00	45
103.00	2134	184.00	1027	271.00	454	415.00	174
104.00	4056	185.00	6457	272.00	615	421.00	2041
105.00	3931	186.00	52768	273.00	6535	422.00	2078
106.00	1261	187.00	14655	274.00	17496	423.00	14798
107.00	49904	188.00	1303	275.00	101256	424.00	3007
108.00	8054	189.00	2967	276.00	13311	425.00	338
109.00	1776	190.00	690	277.00	7621	434.00	47
110.00	94152	191.00	1559	278.00	1284	435.00	106
111.00	14147	192.00	4080	279.00	318	436.00	325
112.00	1760	193.00	4590	281.00	28	437.00	243

Data File: /chem/MSD6.i/s032110.b/s6c2104.d

Date : 21-MAR-2010 16:41

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nagl

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c2104.d
Spectrum: Avg. Scans 179-181 (8.15), Background Scan 173
Location of Maximum: 198.00
Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	569	194.00	1170	282.00	321	438.00	199
114.00	160	195.00	829	283.00	983	439.00	596
115.00	287	196.00	12543	284.00	736	440.00	283
116.00	2775	197.00	2707	285.00	1304	441.00	46912
117.00	32632	198.00	396736	286.00	253	442.00	323584
118.00	2548	199.00	27032	288.00	41	443.00	62992
119.00	434	200.00	2185	289.00	282	444.00	5731
120.00	629	201.00	2056	290.00	267	445.00	335
121.00	259	203.00	2622	291.00	184	446.00	43
122.00	2905	204.00	13557	292.00	449		
123.00	4814	205.00	23616	293.00	1572		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202066181**				
Client Sample:	**QC for batch 963130**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 963130**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 18:13**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2108-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202066181**				
Client Sample:	**QC for batch 963130**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 963130**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 18:13**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2108-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	397	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2108-1.d
Lab Smp Id: 1202066181 Client Smp ID: SBLK01
Inj Date : 21-MAR-2010 18:13
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1202066181|963133|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 22-Mar-2010 16:50 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2198.sub
Target Version: 3.50
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.822	3.822	(1.000)	295580	40.0000	
* 29 Naphthalene-d8	136	4.687	4.687	(1.000)	1018109	40.0000	
* 46 Acenaphthene-d10	164	5.934	5.934	(1.000)	646278	40.0000	
* 67 Phenanthrene-d10	188	7.092	7.093	(1.000)	1121980	40.0000	
* 91 Chrysene-d12	240	9.486	9.486	(1.000)	1078901	40.0000	
* 98 Perylene-d12	264	11.086	11.075	(1.000)	985086	40.0000	
$ 3 2-Fluorophenol	112	3.016	3.005	(0.789)	440172	53.5696	1780
$ 5 Phenol-d5	99	3.540	3.534	(0.926)	548940	52.5320	1750
$ 20 Nitrobenzene-d5	82	4.181	4.181	(0.892)	236192	24.2685	809
$ 39 2-Fluorobiphenyl	172	5.428	5.422	(0.915)	515292	30.9037	1030
$ 60 2,4,6-Tribromophenol	329	6.528	6.522	(1.100)	133431	73.5746	2450
$ 81 p-Terphenyl-d14	244	8.469	8.463	(0.893)	740985	39.4124	1310

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2108-1.d
Lab Smp Id: 1202066181 Client Smp ID: SBLK01
Inj Date : 21-MAR-2010 18:13
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202066181|963133|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 22-Mar-2010 16:50 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2198.sub
Target Version: 3.50
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.822	1793238	40.000

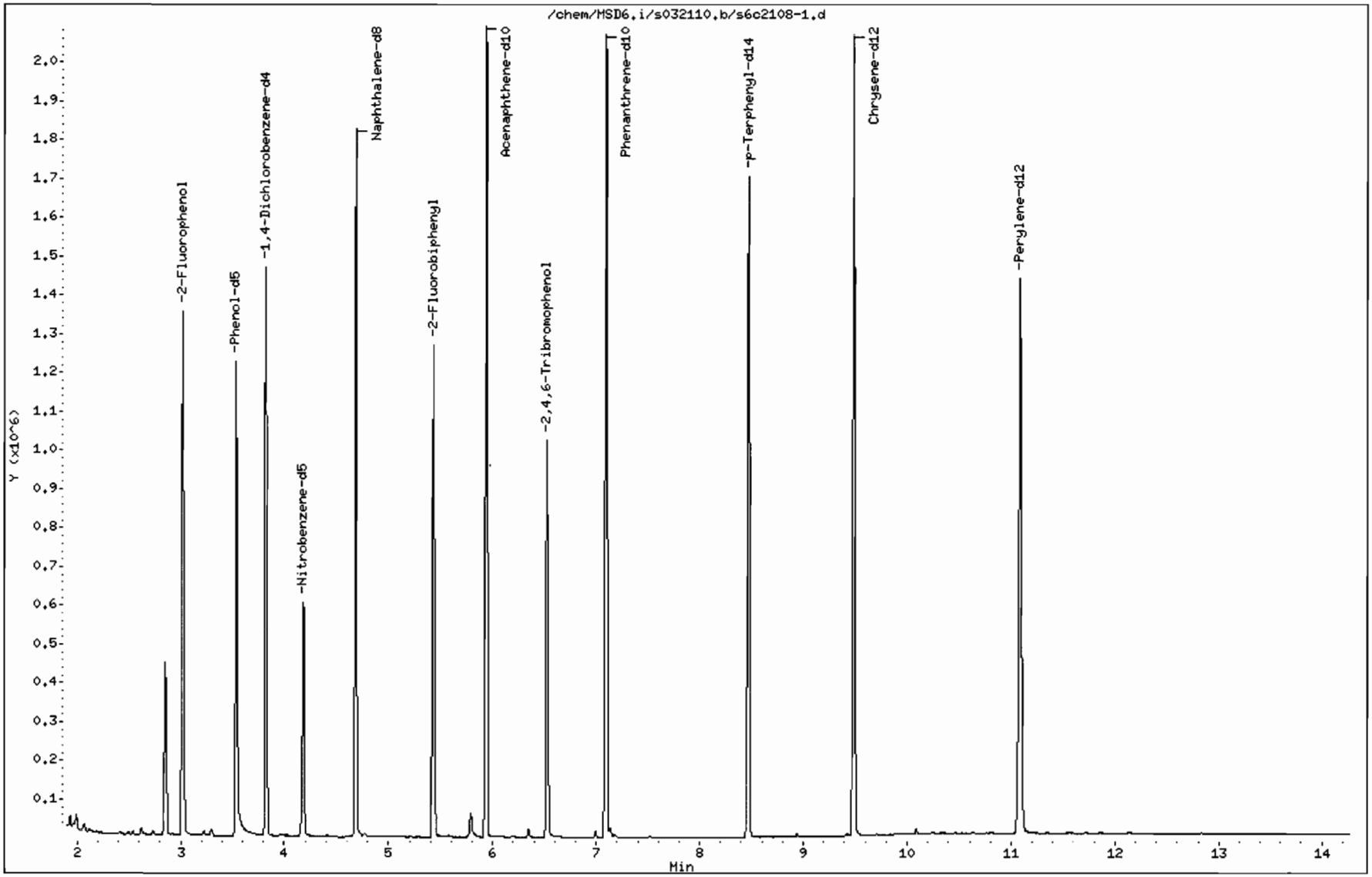
		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.851	534337	11.9189295	397	0		0	10

Data File: /chem/MSD6.i/s032110.b/s6c2108-1.d
Date : 21-MAR-2010 18:13
Client ID: SBLK01
Sample Info: |1202066181|963133|1|SVM|1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20



Data File: /chem/MSD6.i/s032110.b/s6c2108-1.d

Date : 21-MAR-2010 18:13

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1202066181|963133|1|SVM|1|MB

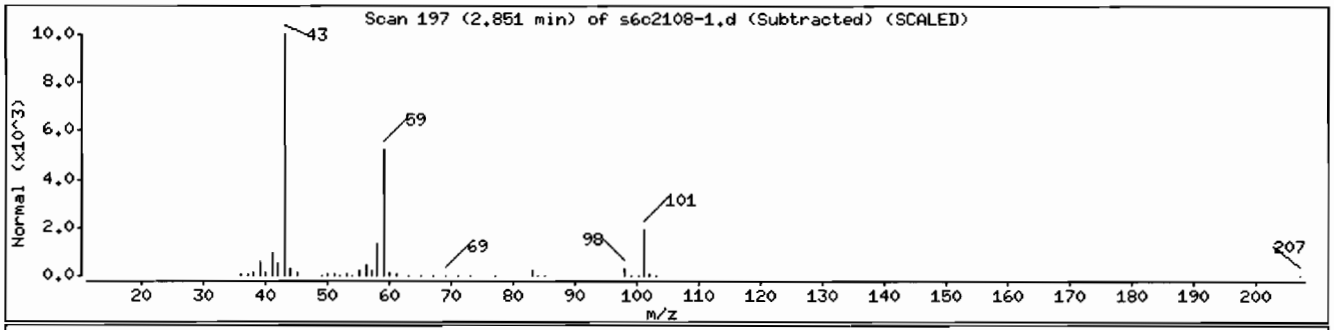
Volume Injected (uL): 0.5

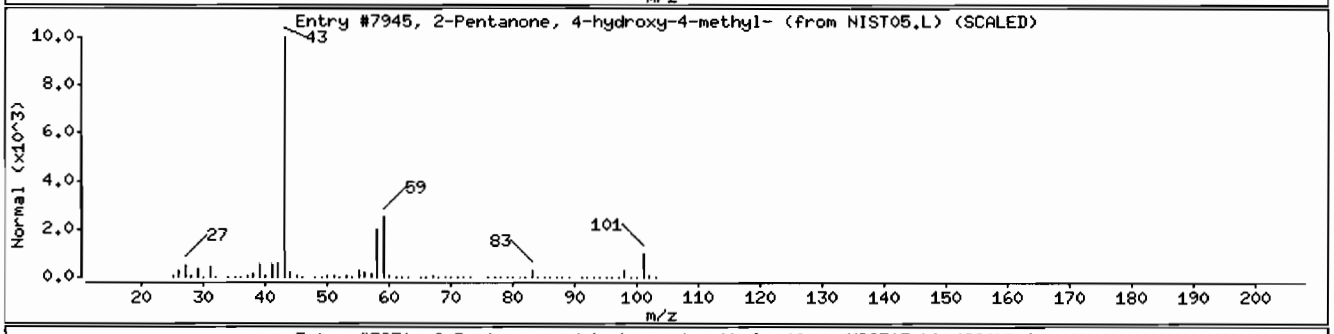
Operator: nag1

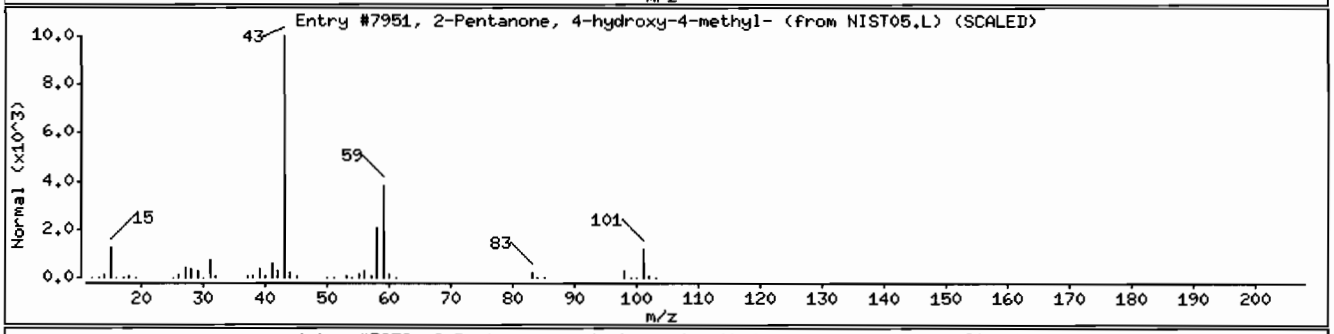
Column phase: J&W DB-5MS

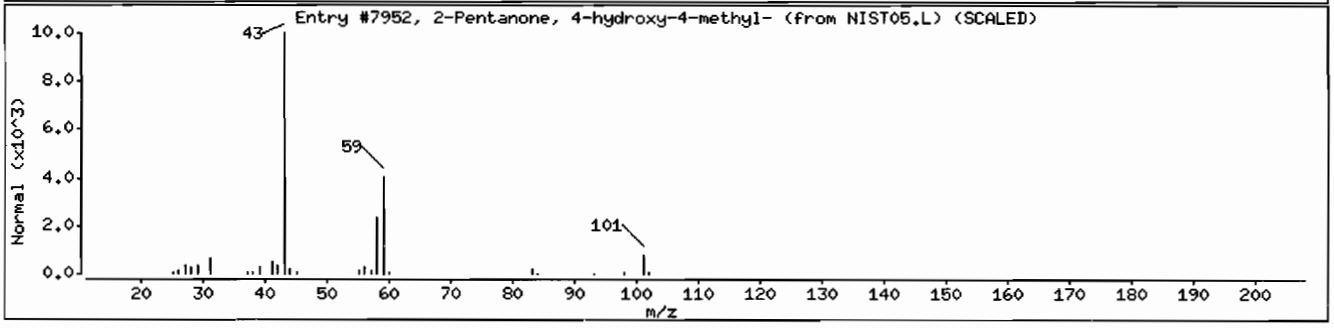
Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116









Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202066182**				
Client Sample:	**QC for batch 963130**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 963130**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 18:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2109-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		662	ug/kg	66.7	333
108-95-2	Phenol		796	ug/kg	66.7	333
95-57-8	2-Chlorophenol		856	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		851	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		769	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		891	ug/kg	66.7	333
83-32-9	Acenaphthene		838	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		947	ug/kg	33.3	333
100-02-7	4-Nitrophenol		659	ug/kg	110	333
87-86-5	Pentachlorophenol		1130	ug/kg	83.3	333
129-00-0	Pyrene		972	ug/kg	10.0	33.3
110-86-1	Pyridine		679	ug/kg	66.7	333
62-53-3	Aniline		747	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		738	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		842	ug/kg	66.7	333
100-51-6	Benzyl alcohol		428	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		915	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		707	ug/kg	66.7	333
95-48-7	o-Cresol		798	ug/kg	66.7	333
65794-96-9	m,p-Cresols		912	ug/kg	100	333
67-72-1	Hexachloroethane		748	ug/kg	66.7	333
98-95-3	Nitrobenzene		863	ug/kg	66.7	333
78-59-1	Isophorone		844	ug/kg	66.7	333
88-75-5	2-Nitrophenol		872	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		440	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		804	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		894	ug/kg	66.7	333
65-85-0	Benzoic acid		1760	ug/kg	167	667
91-20-3	Naphthalene		814	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		831	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1020	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		868	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		763	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		943	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		980	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		883	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		713	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		754	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202066182**				
Client Sample:	**QC for batch 963130**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 963130**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**963133**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 18:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/10/2010 12:14**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2109-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1070	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		990	ug/kg	33.3	333
208-96-8	Acenaphthylene		947	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		937	ug/kg	127	667
132-64-9	Dibenzofuran		971	ug/kg	66.7	333
84-66-2	Diethylphthalate		1100	ug/kg	66.7	333
86-73-7	Fluorene		925	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1040	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		964	ug/kg	66.7	333
100-01-6	4-Nitroaniline		908	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		975	ug/kg	66.7	333
122-66-7	Azobenzene		883	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1080	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1140	ug/kg	66.7	333
85-01-8	Phenanthrene		954	ug/kg	10.0	33.3
120-12-7	Anthracene		913	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1040	ug/kg	66.7	333
206-44-0	Fluoranthene		1030	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		961	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		959	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		944	ug/kg	100	333
218-01-9	Chrysene		989	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		950	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		895	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		942	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1070	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		989	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1090	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1100	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1070	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		963	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2109-1.d
Lab Smp Id: 1202066182 Client Smp ID: SBLK01LCS
Inj Date : 21-MAR-2010 18:37
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202066182|963133|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 22-Mar-2010 16:50 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2198.sub
Target Version: 3.50
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.828	3.822	(1.000)	284919	40.0000	
* 29 Naphthalene-d8	136	4.687	4.687	(1.000)	1047683	40.0000	
* 46 Acenaphthene-d10	164	5.939	5.934	(1.000)	641307	40.0000	
* 67 Phenanthrene-d10	188	7.098	7.093	(1.000)	1110497	40.0000	
* 91 Chrysene-d12	240	9.492	9.486	(1.000)	1005420	40.0000	
* 98 Perylene-d12	264	11.086	11.075	(1.000)	866256	40.0000	
$ 3 2-Fluorophenol	112	3.016	3.005	(0.788)	399040	50.3809	1680
$ 5 Phenol-d5	99	3.540	3.534	(0.925)	468715	46.5331	1550
$ 20 Nitrobenzene-d5	82	4.187	4.181	(0.893)	241202	24.0837	803
$ 39 2-Fluorobiphenyl	172	5.428	5.422	(0.914)	466061	28.1678	939
$ 60 2,4,6-Tribromophenol	329	6.528	6.522	(1.099)	124322	69.0833	2300
$ 81 p-Terphenyl-d14	244	8.469	8.463	(0.892)	583801	33.3214	1110

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.551	3.546	(0.928)	243396	23.8704	796
8 2-Chlorophenol	128	3.693	3.681	(0.965)	212896	25.6722	856
11 1,4-Dichlorobenzene	146	3.840	3.834	(1.003)	226528	25.5357	851
17 N-Nitrosodipropylamine	70	4.063	4.063	(1.061)	160401	23.0566	768(Q)
28 1,2,4-Trichlorobenzene	180	4.640	4.634	(0.990)	218634	28.8786	963
33 4-Chloro-3-methylphenol	107	5.040	5.028	(1.075)	192142	26.7383	891
47 Acenaphthene	154	5.963	5.957	(1.004)	418401	25.1455	838
50 2,4-Dinitrotoluene	165	6.051	6.051	(1.019)	162304	28.3983	947
52 4-Nitrophenol	139	5.981	5.975	(1.007)	60952	19.7636	659
65 Pentachlorophenol	266	6.922	6.916	(0.975)	88305	33.8488	1130
79 Pyrene	202	8.363	8.357	(0.881)	893714	29.1591	972
2 Pyridine	79	2.363	2.340	(0.617)	160394	20.3734	679
4 Aniline	66	3.610	3.604	(0.943)	106922	22.4211	747
7 bis(2-Chloroethyl) ether	63	3.628	3.622	(0.948)	167923	22.1484	738
9 1,3-Dichlorobenzene	146	3.793	3.787	(0.991)	230647	25.2463	842
12 Benzyl alcohol	108	3.893	3.887	(1.017)	74774	12.8294	428(R)
13 1,2-Dichlorobenzene	146	3.940	3.934	(1.029)	220657	27.4410	915
14 bis(2-Chloroisopropyl)ether	45	3.969	3.963	(1.037)	337984	21.2102	707
15 o-Cresol	107	3.945	3.940	(1.031)	151324	23.9273	798
18 m,p-Cresols	107	4.040	4.040	(1.055)	249200	27.3553	912
19 Hexachloroethane	117	4.169	4.163	(1.089)	85986	22.4518	748
21 Nitrobenzene	77	4.198	4.199	(0.896)	239149	25.8796	863
22 Isophorone	82	4.351	4.352	(0.928)	448832	25.3116	844
23 2-Nitrophenol	139	4.410	4.410	(0.941)	104739	26.1502	872
24 2,4-Dimethylphenol	122	4.404	4.404	(0.940)	127250	13.2137	440(QR)
25 bis(2-Chloroethoxy)methane	93	4.475	4.469	(0.955)	232458	24.1129	804
26 2,4-Dichlorophenol	162	4.581	4.569	(0.977)	177406	26.8224	894
27 Benzoic acid	105	4.457	4.463	(0.951)	259019	52.7334	1760(Q)
30 Naphthalene	128	4.704	4.699	(1.004)	630068	24.4255	814
31 4-Chloroaniline	127	4.722	4.716	(1.008)	283634	24.9250	831
32 Hexachlorobutadiene	225	4.769	4.763	(1.018)	130984	30.4811	1020
34 2-Methylnaphthalene	142	5.187	5.181	(1.107)	413080	26.0404	868
36 Hexachlorocyclopentadiene	237	5.287	5.281	(0.890)	84135	22.8803	763
37 2,4,6-Trichlorophenol	196	5.375	5.369	(0.905)	151851	28.2946	943
38 2,4,5-Trichlorophenol	196	5.404	5.393	(0.910)	167108	29.3892	980
40 2-Chloronaphthalene	162	5.539	5.528	(0.933)	413745	26.5047	883
42 o-Nitroaniline	65	5.592	5.587	(0.942)	117270	21.3865	713
41 m-Nitroaniline	138	5.886	5.887	(0.991)	92155	22.6214	754
43 Dimethylphthalate	163	5.704	5.704	(0.960)	583306	32.1957	1070
44 2,6-Dinitrotoluene	165	5.757	5.757	(0.969)	128833	29.6984	990
45 Acenaphthylene	152	5.839	5.834	(0.983)	702314	28.3975	946
48 2,4-Dinitrophenol	184	5.957	5.957	(1.003)	39641	28.1214	937(Q)
49 Dibenzofuran	168	6.086	6.081	(1.025)	588505	29.1162	970
51 Diethylphthalate	149	6.210	6.204	(1.046)	585147	32.9475	1100
53 Fluorene	166	6.345	6.340	(1.068)	497348	27.7516	925
54 4-Chlorophenylphenylether	204	6.322	6.316	(1.064)	267676	31.1362	1040
55 2-Methyl-4,6-dinitrophenol	198	6.357	6.357	(0.896)	71180	28.9343	964

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.339	6.340	(1.067)	90974	27.2350	908
133	Diphenylamine	169	6.410	6.404	(0.903)	421472	29.2503	975
58	1,2-Diphenylhydrazine	77	6.445	6.440	(0.908)	513127	26.4922	883
61	4-Bromophenylphenylether	248	6.710	6.704	(0.945)	155588	32.2679	1080
63	Hexachlorobenzene	284	6.775	6.769	(0.954)	157492	34.1832	1140
68	Phenanthrene	178	7.116	7.110	(1.002)	774738	28.6316	954
69	Anthracene	178	7.157	7.151	(1.008)	746575	27.3875	913
72	Di-n-butylphthalate	149	7.522	7.516	(1.060)	980682	31.1070	1040
76	Fluoranthene	202	8.151	8.139	(1.148)	850116	30.9798	1030
85	Butylbenzylphthalate	149	8.904	8.892	(0.938)	427434	28.8233	961
89	Benzo(a)anthracene	228	9.480	9.475	(0.999)	755447	28.7756	959
90	3,3'-Dichlorobenzidine	252	9.433	9.433	(0.994)	214702	28.3100	944
92	Chrysene	228	9.516	9.510	(1.002)	743679	29.6569	988
93	bis(2-Ethylhexyl)phthalate	149	9.427	9.416	(0.993)	564925	28.5001	950
94	Di-n-octylphthalate	149	10.057	10.045	(0.907)	890365	26.8605	895
95	Benzo(b)fluoranthene	252	10.598	10.586	(0.956)	665368	28.2532	942
96	Benzo(k)fluoranthene	252	10.627	10.622	(0.959)	726342	32.1480	1070
97	Benzo(a)pyrene	252	11.010	11.004	(0.993)	592027	29.6829	989
99	Indeno(1,2,3-cd)pyrene	276	12.751	12.733	(1.150)	596599	32.5977	1090
100	Dibenzo(a,h)anthracene	278	12.768	12.751	(1.152)	488279	33.1239	1100
101	Benzo(ghi)perylene	276	13.257	13.245	(1.196)	500943	32.0556	1070
1	N-Methyl-N-nitrosomethylamine	74	2.328	2.310	(0.608)	109787	19.8731	662

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s032110.b/s6c2109-1.d

Date : 21-MAR-2010 18:37

Client ID: SBLK01LCS

Sample Info: |1202066182|963133|1|SVMI1|LCS

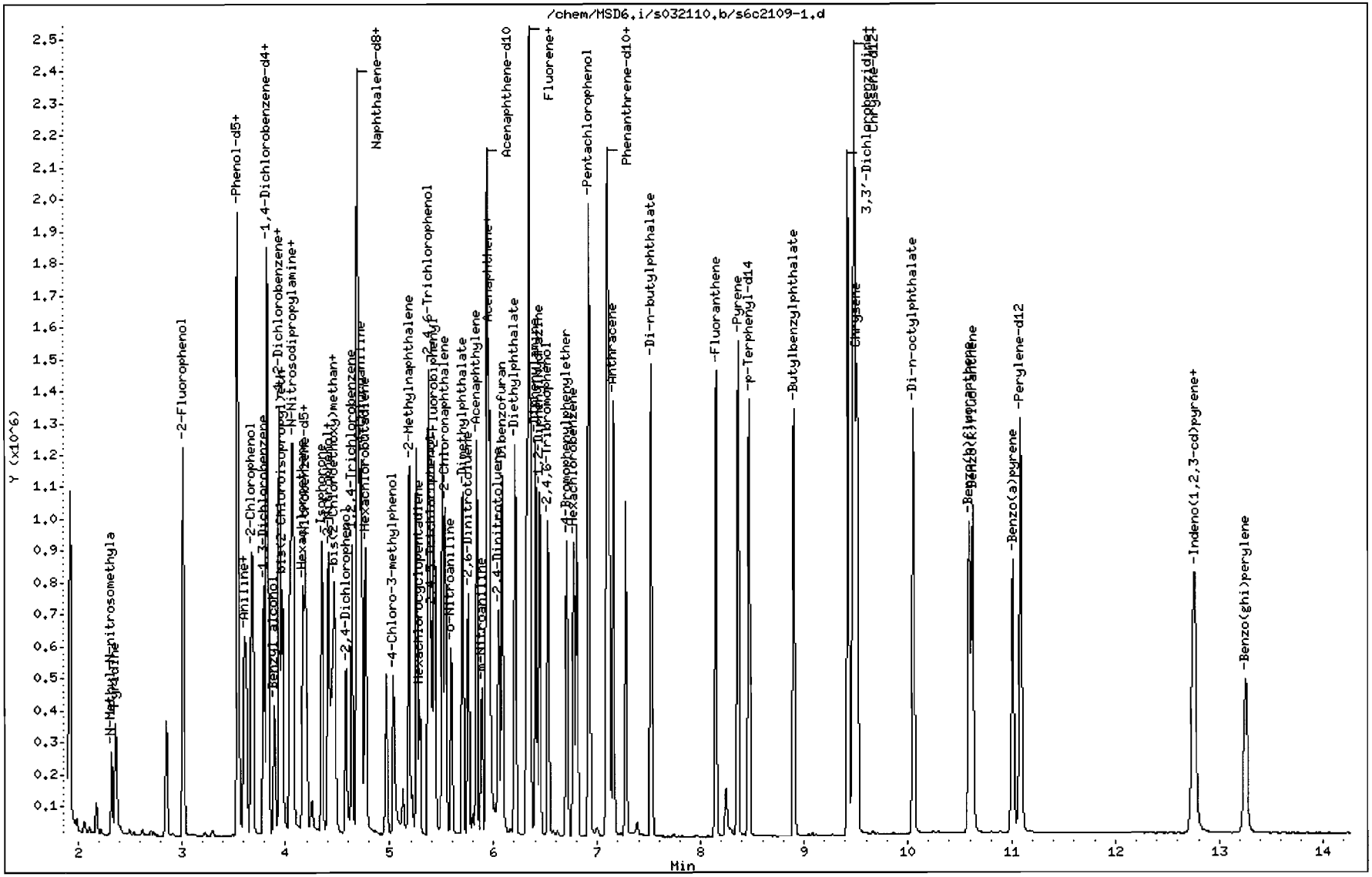
Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20



Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 963130 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202066181 MB	10-MAR-2010 12:14:00	30	1	0.03333
1202066182 LCS	10-MAR-2010 12:14:00	30	1	0.03333
248514001	10-MAR-2010 12:14:00	30.02	1	0.03331
248514002	10-MAR-2010 12:14:00	30.04	1	0.03329
248514003	10-MAR-2010 12:14:00	30.07	1	0.03326
248517001	10-MAR-2010 12:14:00	30.03	1	0.0333
248519001	10-MAR-2010 12:14:00	30	1	0.03333
248519002	10-MAR-2010 12:14:00	30.01	1	0.03332
248519003	10-MAR-2010 12:14:00	30.09	1	0.03323
248519004	10-MAR-2010 12:14:00	30.03	1	0.0333
248519005	10-MAR-2010 12:14:00	30	1	0.03333
248519006	10-MAR-2010 12:14:00	30	1	0.03333
248519007	10-MAR-2010 12:14:00	30.09	1	0.03323
248519008	10-MAR-2010 12:14:00	30.09	1	0.03323
248519009	10-MAR-2010 12:14:00	30.06	1	0.03327
248519010	10-MAR-2010 12:14:00	30.09	1	0.03323
248519011	10-MAR-2010 12:14:00	30.03	1	0.0333
248526001	10-MAR-2010 12:14:00	30	1	0.03333
1202066183 MS (248526001)	10-MAR-2010 12:14:00	30	1	0.03333
1202066184 MSD (248526001)	10-MAR-2010 12:14:00	30.03	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202066182	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
LCS	1202066182	BENZIDINE LCS	UE100302-22	1	mL
MS	1202066183	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MS	1202066183	BENZIDINE LCS	UE100302-22	1	mL
MSD	1202066184	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MSD	1202066184	BENZIDINE LCS	UE100302-22	1	mL
SURR	All	BNA for all Surrogate	UE100301-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH

Final Solvent: CH_2Cl_2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/16/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s031610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c1601-D.d	WBN100306-01.2	nagl	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1601.d	WBN100306-01.2	nagl	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1602.d	INSTBLK	nagl	16-MAR-2010 08:55		s031610	1.0		
s6c1603.d	WBN100309-08	nagl	16-MAR-2010 09:18	001 PPM	s031610	1.0	MEGA001	
s6c1604-RQ.d	WBN100309-07	nagl	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1604.d	WBN100309-07	nagl	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1605.d	WBN100309-06	nagl	16-MAR-2010 10:17	020 PPM	s031610	1.0	MEGA020	
s6c1606.d	WBN100309-05.1	nagl	16-MAR-2010 10:48	040 PPM	s031610	1.0	MEGA040	
s6c1607.d	WBN100309-04	nagl	16-MAR-2010 11:18	050 PPM	s031610	1.0	MEGA050	
s6c1608.d	WBN100309-03	nagl	16-MAR-2010 11:48	080 PPM	s031610	1.0	MEGA080	
s6c1609.d	WBN100309-02	nagl	16-MAR-2010 12:18	100 PPM	s031610	1.0	MEGA100	
s6c1610.d	WBN100309-01	nagl	16-MAR-2010 12:48	120 PPM	s031610	1.0	MEGA120	
s6c1611.d	INSTBLK	nagl	16-MAR-2010 13:16		s031610	1.0		
s6c1612-BOE.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1612-D.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1612.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1613-D.d	WBN100306-01.2	nagl	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1613.d	WBN100306-01.2	nagl	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1614.d	INSTBLK	nagl	16-MAR-2010 16:19		s031610	1.0		

s6c1615.d	WBN100312-01	nag1	16-MAR-2010 16:42	10 PPM	s031610	1.0	AP010	
s6c1616.d	WBN100312-02	nag1	16-MAR-2010 17:06	20 PPM	s031610	1.0	AP020	
s6c1617.d	WBN100312-03.1	nag1	16-MAR-2010 17:30	40 PPM	s031610	1.0	AP040	
s6c1618.d	WBN100312-04	nag1	16-MAR-2010 17:53	50 PPM	s031610	1.0	AP050	
s6c1619.d	WBN100312-05	nag1	16-MAR-2010 18:16	80 PPM	s031610	1.0	AP080	
s6c1620.d	WBN100312-06	nag1	16-MAR-2010 18:40	100 PPM	s031610	1.0	AP100	
s6c1621.d	WBN100312-07	nag1	16-MAR-2010 19:04	120 PPM	s031610	1.0	AP120	
s6c1622.d	WBN100304-25	nag1	16-MAR-2010 19:27	10 PPM	s031610	1.0	PEST010	
s6c1623.d	WBN100304-24	nag1	16-MAR-2010 19:51	20 PPM	s031610	1.0	PEST020	
s6c1624.d	WBN100304-23.1	nag1	16-MAR-2010 20:16	40 PPM	s031610	1.0	PEST040	
s6c1625.d	WBN100304-22	nag1	16-MAR-2010 20:39	50 PPM	s031610	1.0	PEST050	
s6c1626.d	WBN100304-21	nag1	16-MAR-2010 21:04	80 PPM	s031610	1.0	PEST080	
s6c1627.d	WBN100304-20	nag1	16-MAR-2010 21:29	100 PPM	s031610	1.0	PEST100	
s6c1628.d	WBN100304-19	nag1	16-MAR-2010 21:52	120 PPM	s031610	1.0	PEST120	
s6c1629.d	WBN100304-16	nag1	16-MAR-2010 22:16	500 PPM	s031610	1.0	HEX500	
s6c1630.d	WBN100304-15	nag1	16-MAR-2010 22:40	1000 PPM	s031610	1.0	HEX1000	
s6c1631.d	WBN100304-14	nag1	16-MAR-2010 23:05	1250 PPM	s031610	1.0	HEX1250	
s6c1632.d	WBN100304-15	nag1	16-MAR-2010 23:30	1500 PPM	s031610	1.0	HEX1500	
s6c1633.d	WBN100304-16	nag1	16-MAR-2010 23:53	1750 PPM	s031610	1.0	HEX1750	
s6c1634.d	UBN100304-16	nag1	17-MAR-2010 00:17	2000 PPM	s031610	1.0	HEX2000	
s6c1635-D.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	40 PPM	s031710	1.0	APICV	
s6c1635.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	40 PPM	s031710	1.0	APICV	
s6c1636-D.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	40 PPM	s031710	1.0	PESTICV	
s6c1636.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	40 PPM	s031710	1.0	PESTICV	
s6c1637-D.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM	s031710	1.0	HEX1250	
s6c1637.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM	s031710	1.0	HEX1250	
s6c1638-D.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610	1.0	DFTPP	NEV

s6c1638.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610		1.0	DFTPP	NEV
s6c1639.d	INSTBLK	nag1	17-MAR-2010 02:08		s031610		1.0		
s6c1640.d	WBN100127-01	nag1	17-MAR-2010 02:32	10 PPM	s031610		1.0	NEV010	
s6c1641.d	WBN100127-02	nag1	17-MAR-2010 02:55	20 PPM	s031610		1.0	NEV020	
s6c1642.d	WBN100127-03	nag1	17-MAR-2010 03:19	40 PPM	s031610		1.0	NEV040	
s6c1643.d	WBN100127-04	nag1	17-MAR-2010 03:42	50 PPM	s031610		1.0	NEV050	
s6c1644.d	WBN100127-05	nag1	17-MAR-2010 04:05	80 PPM	s031610		1.0	NEV080	
s6c1645.d	WBN100127-06	nag1	17-MAR-2010 04:28	100 PPM	s031610		1.0	NEV100	
s6c1646.d	WBN100127-07	nag1	17-MAR-2010 04:51	120 PPM	s031610		1.0	NEV120	
s6c1647.d	WBN100127-03	nag1	17-MAR-2010 05:14	40 PPM	s031610		1.0	NEVcvs	

Instrument Batch: /chem/MSD6.i/s031610.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/21/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s032110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c2101.d	WBN100306-01.2	nagl	21-MAR-2010 08:53	DFTPP	s032110	1.0	DFTPP	DUSE
s6c2102.d	WBN100309-05.3	nagl	21-MAR-2010 09:12	40 PPM	s032110	1.0	MEGACVS	DUSE
s6c2103.d	WBN100309-05.3	nagl	21-MAR-2010 09:45	40 PPM	s032110	1.0	MEGACVS	DUSE
s6c2104.d	WBN100306-01.2	nagl	21-MAR-2010 16:41	DFTPP	s032110	1.0	DFTPP	
s6c2105.d	WBN100309-05.3	nagl	21-MAR-2010 16:55	40 PPM	s032110	1.0	MEGACVS	pass 534666
s6c2106.d	WBN100312-03.3	nagl	21-MAR-2010 17:25	40 PPM	s032110	1.0	APCVS	
s6c2107.d	WBN100304-26.3	nagl	21-MAR-2010 17:49	40 PPM	s032110	1.0	PESTCVS	
s6c2108-1.d	1202066181	nagl	21-MAR-2010 18:13	963133	10-2198	1.0	MB	
s6c2108-2.d	1202066181	nagl	21-MAR-2010 18:13	963133	10-2199	1.0	MB	
s6c2108-3.d	1202066181	nagl	21-MAR-2010 18:13	963133	10-2302	1.0	MB	
s6c2108.d	1202066181	nagl	21-MAR-2010 18:13	963133	10-2196	1.0	MB	
s6c2109-1.d	1202066182	nagl	21-MAR-2010 18:37	963133	10-2198	1.0	LCS	<5% fail
s6c2109-2.d	1202066182	nagl	21-MAR-2010 18:37	963133	10-2199	1.0	LCS	<5% fail
s6c2109-3.d	1202066182	nagl	21-MAR-2010 18:37	963133	10-2302	1.0	LCS	<5% fail
s6c2109.d	1202066182	nagl	21-MAR-2010 18:37	963133	10-2196	1.0	LCS	<5% fail
s6c2110.d	248514001	nagl	21-MAR-2010 19:00	963133	10-2196	1.0	LANL	
s6c2111.d	248514002	nagl	21-MAR-2010 19:24	963133	10-2196	1.0	LANL	DUSE fail istd-rr 4x
s6c2112.d	248514003	nagl	21-MAR-2010 19:48	963133	10-2196	1.0	LANL	DUSE fail istd-rr 4x
s6c2113.d	248517001	nagl	21-MAR-2010 20:12	963133	10-2198	1.0	LANL	

s6c2114.d	248519001	nag1	21-MAR-2010 20:35	963133	10-2199		1.0	LANL	DUSE fail istd-rr 4x
s6c2115.d	248519002	nag1	21-MAR-2010 20:58	963133	10-2199		1.0	LANL	DUSE fail istd-rr 4x
s6c2116.d	248519003	nag1	21-MAR-2010 21:22	963133	10-2199		1.0	LANL	DUSE fail istd-rr 4x
s6c2117.d	248519004	nag1	21-MAR-2010 21:46	963133	10-2199		1.0	LANL	DUSE fail istd-rr 4x
s6c2118.d	248519005	nag1	21-MAR-2010 22:09	963133	10-2199		1.0	LANL	
s6c2119.d	248519006	nag1	21-MAR-2010 22:33	963133	10-2199		1.0	LANL	DUSE fail istd-rr 4x
s6c2120.d	248519007	nag1	21-MAR-2010 22:57	963133	10-2199		1.0	LANL	DUSE fail istd-rr 4x
s6c2121.d	248519008	nag1	21-MAR-2010 23:20	963133	10-2199		1.0	LANL	
s6c2122.d	248519009	nag1	21-MAR-2010 23:44	963133	10-2199		1.0	LANL	
s6c2123.d	248519010	nag1	22-MAR-2010 00:07	963133	10-2199		1.0	LANL	DUSE fail istd
s6c2124.d	248519011	nag1	22-MAR-2010 00:31	963133	10-2199		1.0	LANL	
s6c2125.d	248526001	nag1	22-MAR-2010 00:55	963133	10-2202		1.0	LANL	fail istd,surr-MS/MSD confirm
s6c2126.d	1202066183	nag1	22-MAR-2010 01:18	963133	10-2202		1.0	MS	fail istd,surr
s6c2127.d	1202066184	nag1	22-MAR-2010 01:42	963133	10-2202		1.0	MSD	fail istd,surr
s6c2128.d	248842004	nag1	22-MAR-2010 02:06	965425	10-2302		10.0	LANL	DUSE-fail istd s6c2318
s6c2129.d	248842005	nag1	22-MAR-2010 02:29	965425	10-2302		1.0	LANL	DUSE-rr of s6c2026-still fail surr-RX
s6c2130.d	248842006	nag1	22-MAR-2010 02:53	965425	10-2302		1.0	LANL	DUSE-rr of s6c2027-still fail surr-RX
s6c2131.d	248842007	nag1	22-MAR-2010 03:17	965425	10-2302		10.0	LANL	DUSE-fail istd s6c2319
s6c2132.d	248842008	nag1	22-MAR-2010 03:40	965425	10-2302		10.0	LANL	DUSE-fail istd s6c2320
s6c2133.d	248842009	nag1	22-MAR-2010 04:03	965425	10-2302		10.0	LANL	DUSE-fail istd s6c2321
s6c2134.d	248842010	nag1	22-MAR-2010 04:27	965425	10-2302		10.0	LANL	DUSE- fail istd s6c2322

Instrument Batch: /chem/MSD6.i/s032110.b

Page: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
963133	See Below		

Potentially affected work order(s)(SDG): 248514(10-2196),248517(10-2198),248519(10-2199),248526(10-2202)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 248526001 and the MS(1202066183) recovered surrogates outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	1. Since the MS displayed similar surrogate recoveries to the associated parent sample and the MS and MSD both displayed multiple spike failures, the surrogate failures were attributed to matrix interference and the data were reported.
2. The LCS(1202066182) recovered 2,4-Dimethylphenol at 26% (limits are 32%-112%) and Benzyl alcohol at 26% (limits are 27%-108%).	2. The LCS failures represent less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is stated in the Method as displaying erratic chromatographic behavior. This may account for the low recoveries of the analytes in the LCS (as well as in the MS and MSD).
3. The MS(1202066183) and MSD(1202066184) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	3. Since the MSD displayed similar recoveries to the MS, the failures were attributed to matrix interference and the data were reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method and is subject to erratic chromatography behavior. This may account for the low recoveries of the analytes in the MS and MSD (as well as in the LCS).
4. Multiple MS(1202066183)/MSD(1202066184) RPD values were outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	4. The RPD failures were attributed to matrix interference and the data were reported.

Originator's Name:

Lloyd O Fox 25-MAR-10

Data Validator/Group Leader:

Daniel Beacham 30-MAR-10

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2126.d
Lab Smp Id: 1202066183 Client Smp ID: RE36-10-8466MS
Inj Date : 22-MAR-2010 01:18
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202066183|963133|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 23-Mar-2010 10:53 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 23 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2202.sub
Target Version: 3.50
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.38630	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.828	3.822	(1.000)	301304	40.0000	
* 29 Naphthalene-d8	136	4.692	4.687	(1.000)	1168255	40.0000	
* 46 Acenaphthene-d10	164	5.939	5.934	(1.000)	729368	40.0000	
* 67 Phenanthrene-d10	188	7.098	7.093	(1.000)	1290719	40.0000	
* 91 Chrysene-d12	240	9.498	9.486	(1.000)	1135062	40.0000	
* 98 Perylene-d12	264	11.092	11.075	(1.000)	771370	40.0000	
$ 3 2-Fluorophenol	112	3.022	3.005	(0.789)	260338	31.0816	1180
$ 5 Phenol-d5	99	3.545	3.534	(0.926)	327263	30.7232	1170(R)
$ 20 Nitrobenzene-d5	82	4.187	4.181	(0.892)	149918	13.4242	511(R)
$ 39 2-Fluorobiphenyl	172	5.434	5.422	(0.915)	335877	17.8488	679
$ 60 2,4,6-Tribromophenol	329	6.533	6.522	(1.100)	91786	44.8457	1710
$ 81 p-Terphenyl-d14	244	8.475	8.463	(0.892)	410656	20.7617	790

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.557	3.546	(0.929)	166212	15.4143	586(R)
8 2-Chlorophenol	128	3.692	3.681	(0.965)	142113	16.2049	616
11 1,4-Dichlorobenzene	146	3.840	3.834	(1.003)	103941	11.0797	422(R)
17 N-Nitrosodipropylamine	70	4.063	4.063	(1.061)	108477	14.7449	561(Q)
28 1,2,4-Trichlorobenzene	180	4.639	4.634	(0.989)	131104	15.5298	591
33 4-Chloro-3-methylphenol	107	5.045	5.028	(1.075)	149470	18.6534	710
47 Acenaphthene	154	5.963	5.957	(1.004)	296891	15.6886	597
50 2,4-Dinitrotoluene	165	6.057	6.051	(1.020)	121123	18.6341	709
52 4-Nitrophenol	139	5.998	5.975	(1.010)	58915	16.7967	639
65 Pentachlorophenol	266	6.928	6.916	(0.976)	62275	20.5380	781
79 Pyrene	202	8.369	8.357	(0.881)	602596	17.4152	662
2 Pyridine	79	2.357	2.340	(0.616)	89302	10.7264	408(R)
4 Aniline	66	3.610	3.604	(0.943)	59313	11.7613	447
7 bis(2-Chloroethyl) ether	63	3.628	3.622	(0.948)	95039	11.8536	451(R)
9 1,3-Dichlorobenzene	146	3.792	3.787	(0.991)	102816	10.6421	405(R)
13 1,2-Dichlorobenzene	146	3.940	3.934	(1.029)	107804	12.6775	482(R)
14 bis(2-Chloroisopropyl)ether	45	3.969	3.963	(1.037)	198352	11.7707	448(QR)
15 o-Cresol	107	3.951	3.940	(1.032)	182422	27.2759	1040(Q)
18 m,p-Cresols	107	4.045	4.040	(1.057)	188246	19.5405	743
19 Hexachloroethane	117	4.169	4.163	(1.089)	33831	8.35325	318(aR)
21 Nitrobenzene	77	4.204	4.199	(0.896)	146695	14.2363	542
22 Isophorone	82	4.351	4.352	(0.927)	304850	15.4175	586
23 2-Nitrophenol	139	4.416	4.410	(0.941)	77069	17.2559	656
24 2,4-Dimethylphenol	122	4.416	4.404	(0.941)	148854	14.1556	538(Q)
25 bis(2-Chloroethoxy)methane	93	4.475	4.469	(0.954)	166718	15.5089	590
26 2,4-Dichlorophenol	162	4.575	4.569	(0.975)	142199	19.2805	734
27 Benzoic acid	105	4.463	4.463	(0.951)	221597	40.4585	1540(Q)
30 Naphthalene	128	4.704	4.699	(1.002)	411015	14.2891	544
31 4-Chloroaniline	127	4.722	4.716	(1.006)	200123	15.7712	600
32 Hexachlorobutadiene	225	4.769	4.763	(1.016)	71194	14.8576	565
34 2-Methylnaphthalene	142	5.187	5.181	(1.105)	292174	16.5176	628
36 Hexachlorocyclopentadiene	237	5.287	5.281	(0.890)	39568	9.46124	360(aR)
37 2,4,6-Trichlorophenol	196	5.375	5.369	(0.905)	115521	18.9263	720
38 2,4,5-Trichlorophenol	196	5.410	5.393	(0.911)	128296	19.8391	755
40 2-Chloronaphthalene	162	5.539	5.528	(0.933)	304646	17.1595	653
42 o-Nitroaniline	65	5.598	5.587	(0.943)	95123	15.2531	580(R)
41 m-Nitroaniline	138	5.892	5.887	(0.992)	74766	16.1370	614(R)
43 Dimethylphthalate	163	5.704	5.704	(0.960)	417457	20.2597	771
44 2,6-Dinitrotoluene	165	5.763	5.757	(0.970)	91926	18.6322	709
45 Acenaphthylene	152	5.839	5.834	(0.983)	507310	18.0360	686
48 2,4-Dinitrophenol	184	5.963	5.957	(1.004)	33813	22.5458	858(Q)
49 Dibenzofuran	168	6.086	6.081	(1.025)	452538	19.6861	749
51 Diethylphthalate	149	6.210	6.204	(1.046)	401823	19.8935	757
53 Fluorene	166	6.345	6.340	(1.068)	362375	17.7789	676
54 4-Chlorophenylphenylether	204	6.328	6.316	(1.065)	198120	20.2630	771
55 2-Methyl-4,6-dinitrophenol	198	6.363	6.357	(0.896)	56016	21.0266	800
56 p-Nitroaniline	138	6.345	6.340	(1.068)	79224	20.8538	793

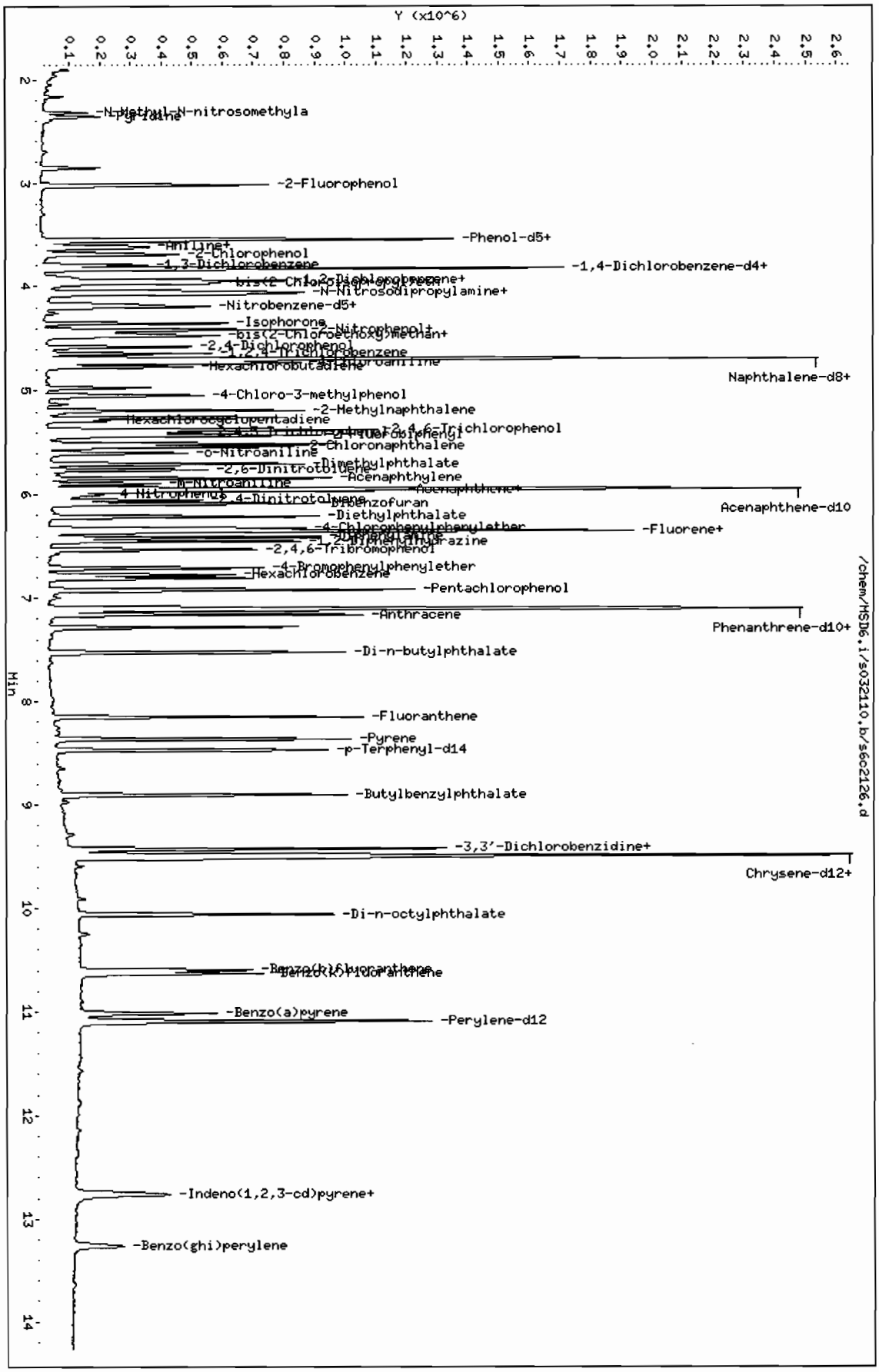
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.416	6.404	(0.904)	312538	18.6616	710
58 1,2-Diphenylhydrazine	77	6.451	6.440	(0.909)	385441	17.1213	651
61 4-Bromophenylphenylether	248	6.710	6.704	(0.945)	115084	20.5350	781
63 Hexachlorobenzene	284	6.775	6.769	(0.954)	98842	18.4578	702(R)
68 Phenanthrene	178	7.122	7.110	(1.003)	550983	17.5192	666
69 Anthracene	178	7.163	7.151	(1.009)	581227	18.3447	698
72 Di-n-butylphthalate	149	7.522	7.516	(1.060)	671998	18.3393	698(R)
76 Fluoranthene	202	8.151	8.139	(1.148)	597592	18.7366	713
85 Butylbenzylphthalate	149	8.904	8.892	(0.937)	283866	16.9557	645(R)
89 Benzo(a)anthracene	228	9.486	9.475	(0.999)	508429	17.1545	653
90 3,3'-Dichlorobenzidine	252	9.439	9.433	(0.994)	119418	13.9477	531(R)
92 Chrysene	228	9.522	9.510	(1.002)	487805	17.2312	656
93 bis(2-Ethylhexyl)phthalate	149	9.427	9.416	(0.993)	375435	16.7772	638(R)
94 Di-n-octylphthalate	149	10.063	10.045	(0.907)	587982	19.9202	758
95 Benzo(b)fluoranthene	252	10.598	10.586	(0.955)	376361	17.9471	683
96 Benzo(k)fluoranthene	252	10.633	10.622	(0.959)	406814	20.2205	769
97 Benzo(a)pyrene	252	11.016	11.004	(0.993)	316599	17.8262	678
99 Indeno(1,2,3-cd)pyrene	276	12.757	12.733	(1.150)	226466	13.8960	529(R)
100 Dibenzo(a,h)anthracene	278	12.774	12.751	(1.152)	198811	15.1460	576
101 Benzo(ghi)perylene	276	13.262	13.245	(1.196)	167247	12.0187	457(R)
1 N-Methyl-N-nitrosomethylamine	74	2.322	2.310	(0.607)	66864	11.4452	435(R)

QC Flag Legend

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

Data File: /chem/MSD6.i/s032110.b/s6c2126.d
Date : 22-MAR-2010 01:18
Client ID: RE36-10-8466MS
Sample Info: 1120206618319631331111SVM11MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20



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GEL Laboratories LLC

Data file : /chem/MSD6.i/s032110.b/s6c2127.d
Lab Smp Id: 1202066184 Client Smp ID: RE36-10-8466MSD
Inj Date : 22-MAR-2010 01:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202066184|963133|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032110.b/MSD6-M8270C-AQA-031610.m
Meth Date : 23-Mar-2010 10:53 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 24 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2202.sub
Target Version: 3.50
Processing Host: hpclp1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	12.38630	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.822	3.822	(1.000)	391553	40.0000	
* 29 Naphthalene-d8	136	4.692	4.687	(1.000)	1498428	40.0000	
* 46 Acenaphthene-d10	164	5.939	5.934	(1.000)	896237	40.0000	
* 67 Phenanthrene-d10	188	7.104	7.093	(1.000)	1588885	40.0000	
* 91 Chrysene-d12	240	9.498	9.486	(1.000)	1235314	40.0000	
* 98 Perylene-d12	264	11.092	11.075	(1.000)	636926	40.0000	
$ 3 2-Fluorophenol	112	3.022	3.005	(0.791)	427215	39.2488	1490
$ 5 Phenol-d5	99	3.546	3.534	(0.928)	515828	37.2639	1420
$ 20 Nitrobenzene-d5	82	4.187	4.181	(0.892)	239114	16.6932	634
$ 39 2-Fluorobiphenyl	172	5.434	5.422	(0.915)	448458	19.3943	737
$ 60 2,4,6-Tribromophenol	329	6.534	6.522	(1.100)	113826	45.2595	1720
$ 81 p-Terphenyl-d14	244	8.475	8.463	(0.892)	477817	22.1968	844

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.557	3.546	(0.931)	281360	20.0789	763
8 2-Chlorophenol	128	3.693	3.681	(0.966)	231715	20.3320	773
11 1,4-Dichlorobenzene	146	3.834	3.834	(1.003)	167663	13.7529	523
17 N-Nitrosodipropylamine	70	4.063	4.063	(1.063)	174778	18.2812	695(Q)
28 1,2,4-Trichlorobenzene	180	4.640	4.634	(0.989)	194314	17.9455	682
33 4-Chloro-3-methylphenol	107	5.045	5.028	(1.075)	209404	20.3746	774
47 Acenaphthene	154	5.963	5.957	(1.004)	387535	16.6656	633
50 2,4-Dinitrotoluene	165	6.057	6.051	(1.020)	161862	20.2652	770
52 4-Nitrophenol	139	5.998	5.975	(1.010)	76565	17.7644	675
65 Pentachlorophenol	266	6.934	6.916	(0.976)	85024	22.7785	866
79 Pyrene	202	8.369	8.357	(0.881)	714633	18.9770	721
2 Pyridine	79	2.381	2.340	(0.623)	91916	8.49567	323(aR)
4 Aniline	66	3.634	3.604	(0.951)	61350	9.36129	356(aQ)
7 bis(2-Chloroethyl) ether	63	3.622	3.622	(0.948)	159240	15.2832	581(Q)
9 1,3-Dichlorobenzene	146	3.787	3.787	(0.991)	175780	14.0007	532
13 1,2-Dichlorobenzene	146	3.940	3.934	(1.031)	175880	15.9158	605
14 bis(2-Chloroisopropyl)ether	45	3.969	3.963	(1.038)	312069	14.2505	542(Q)
15 o-Cresol	107	3.951	3.940	(1.034)	274614	31.5965	1200(Q)
18 m,p-Cresols	107	4.045	4.040	(1.058)	262774	20.9897	798
19 Hexachloroethane	117	4.163	4.163	(1.089)	55617	10.5673	402(R)
21 Nitrobenzene	77	4.198	4.199	(0.895)	242621	18.3574	698
22 Isophorone	82	4.351	4.352	(0.927)	474596	18.7134	711
23 2-Nitrophenol	139	4.416	4.410	(0.941)	120064	20.9591	797
24 2,4-Dimethylphenol	122	4.416	4.404	(0.941)	262846	21.7448	826(Q)
25 bis(2-Chloroethoxy)methane	93	4.475	4.469	(0.954)	262572	19.0436	724
26 2,4-Dichlorophenol	162	4.581	4.569	(0.976)	189243	20.0052	760
27 Benzoic acid	105	4.475	4.463	(0.954)	365071	51.9667	1980(Q)
30 Naphthalene	128	4.704	4.699	(1.002)	604998	16.3985	623(Q)
31 4-Chloroaniline	127	4.710	4.716	(1.004)	106758	6.55950	249(aR)
32 Hexachlorobutadiene	225	4.769	4.763	(1.016)	105456	17.1584	652
34 2-Methylnaphthalene	142	5.187	5.181	(1.105)	410202	18.0803	687
36 Hexachlorocyclopentadiene	237	5.287	5.281	(0.890)	58386	11.3615	432(R)
37 2,4,6-Trichlorophenol	196	5.375	5.369	(0.905)	162979	21.7301	826
38 2,4,5-Trichlorophenol	196	5.410	5.393	(0.911)	166656	20.9727	797
40 2-Chloronaphthalene	162	5.540	5.528	(0.933)	406653	18.6405	708
42 o-Nitroaniline	65	5.598	5.587	(0.943)	127925	16.6936	634
41 m-Nitroaniline	138	5.892	5.887	(0.992)	80598	14.1569	538(R)
43 Dimethylphthalate	163	5.704	5.704	(0.960)	576454	22.7672	865
44 2,6-Dinitrotoluene	165	5.763	5.757	(0.970)	123244	20.3289	773
45 Acenaphthylene	152	5.839	5.834	(0.983)	667663	19.3174	734
48 2,4-Dinitrophenol	184	5.963	5.957	(1.004)	46944	24.7177	939(Q)
49 Dibenzofuran	168	6.087	6.081	(1.025)	594169	21.0348	799
51 Diethylphthalate	149	6.210	6.204	(1.046)	537350	21.6500	823
53 Fluorene	166	6.345	6.340	(1.068)	463259	18.4967	703
54 4-Chlorophenylphenylether	204	6.328	6.316	(1.065)	260935	21.7186	825
55 2-Methyl-4,6-dinitrophenol	198	6.363	6.357	(0.896)	70904	21.4950	817
56 p-Nitroaniline	138	6.345	6.340	(1.068)	95489	20.4553	777

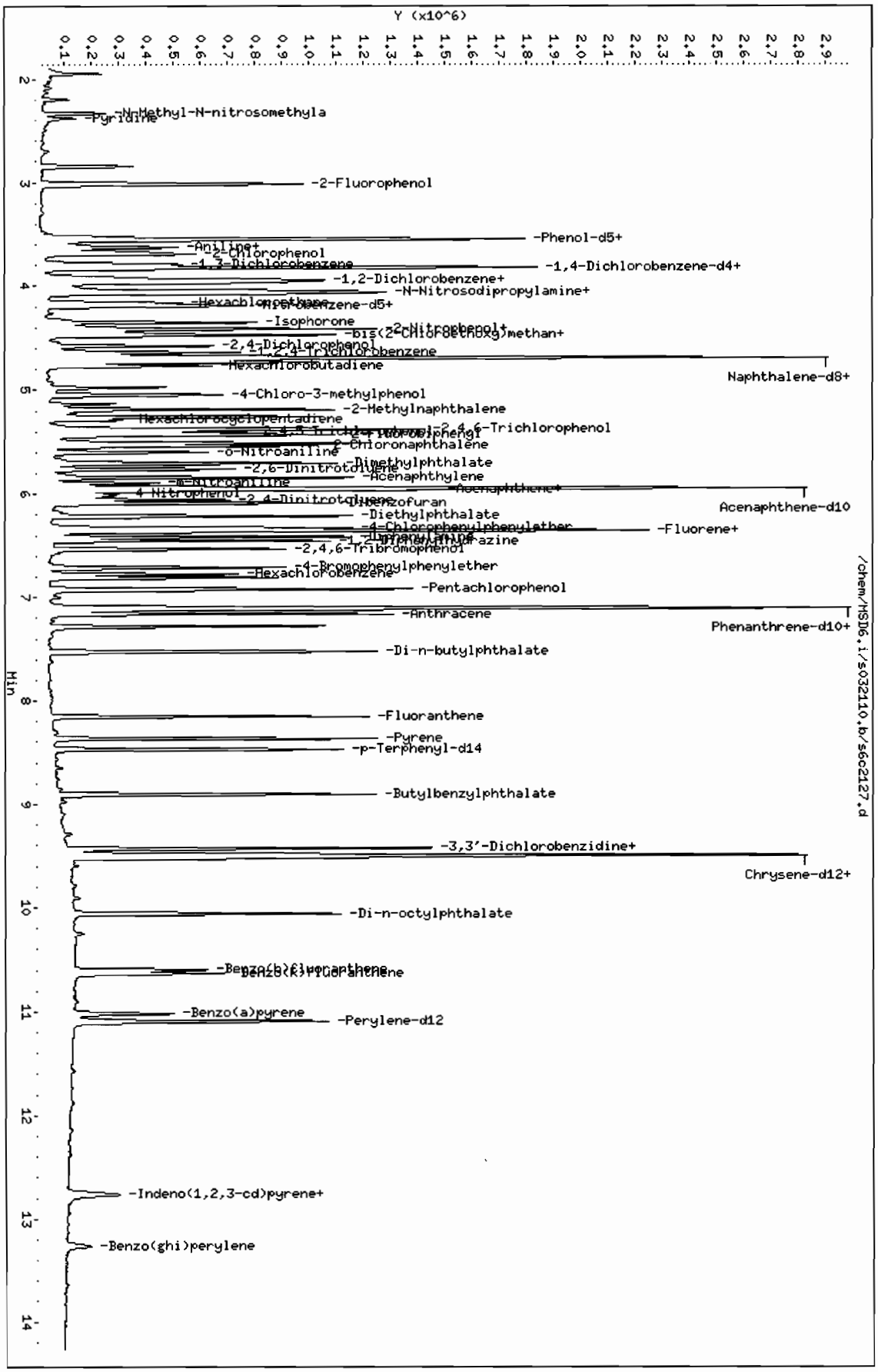
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.416	6.404	(0.903)	385462	18.6968	711
58 1,2-Diphenylhydrazine	77	6.451	6.440	(0.908)	492994	17.7893	676
61 4-Bromophenylphenylether	248	6.710	6.704	(0.945)	141952	20.5760	782
63 Hexachlorobenzene	284	6.775	6.769	(0.954)	113641	17.2391	655(R)
68 Phenanthrene	178	7.122	7.110	(1.002)	687486	17.7574	675
69 Anthracene	178	7.163	7.151	(1.008)	713779	18.3007	696
72 Di-n-butylphthalate	149	7.528	7.516	(1.060)	836234	18.5388	705(R)
76 Fluoranthene	202	8.151	8.139	(1.147)	702111	17.8826	680
85 Butylbenzylphthalate	149	8.904	8.892	(0.937)	355016	19.4847	740
89 Benzo(a)anthracene	228	9.486	9.475	(0.999)	549951	17.0496	648
90 3,3'-Dichlorobenzidine	252	9.439	9.433	(0.994)	90489	9.71114	369(aR)
92 Chrysene	228	9.522	9.510	(1.002)	544803	17.6828	672
93 bis(2-Ethylhexyl)phthalate	149	9.427	9.416	(0.993)	446743	18.3436	697(R)
94 Di-n-octylphthalate	149	10.063	10.045	(0.907)	676798	27.7692	1060
95 Benzo(b)fluoranthene	252	10.598	10.586	(0.955)	331144	19.1241	727
96 Benzo(k)fluoranthene	252	10.633	10.622	(0.959)	368645	22.1911	843
97 Benzo(a)pyrene	252	11.016	11.004	(0.993)	254793	17.3744	660
99 Indeno(1,2,3-cd)pyrene	276	12.757	12.733	(1.150)	138062	10.2597	390(R)
100 Dibenzo(a,h)anthracene	278	12.774	12.751	(1.152)	124469	11.4840	436(R)
101 Benzo(ghi)perylene	276	13.263	13.245	(1.196)	94984	8.26654	314(R)
1 N-Methyl-N-nitrosomethylamine	74	2.340	2.310	(0.612)	119394	15.7264	598

QC Flag Legend

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

Data File: /chem/MSD6.i/s032110.b/s6c2127.d
Date : 22-MAR-2010 01:42
Client ID: RE36-10-8466MSD
Sample Info: 1120206618419631331|1|SVM11|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20



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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2198

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:	963899
Prep Batch Number:	963897

Sample Analysis

Sample ID	Client ID
248517001	RE36-10-8292
1202067814	Interference Check Sample (ICS)
1202067810	Method Blank (MB)
1202067811	Laboratory Control Sample (LCS)
1202067812	248374002(RE36-10-7493) Matrix Spike (MS)
1202067813	248374002(RE36-10-7493) 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

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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.

Laboratory Control Sample Duplicate (LCSD) Recovery
A laboratory control sample duplicate (LCSD) was not extracted.

LCS/LCSD Relative Percent Difference (RPD) Statement
A laboratory control sample duplicate (LCSD) was not extracted.

QC Sample Designation
Sample 248374002 (RE36-10-7493) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
Low recovery for Perchlorate-101 was observed in 1202067812 (MS). The recovery was 71% and the acceptance range is 75-125%. The low recovery may be the result of the background concentration present in the parent sample, 248374002, and the non-homogeneity of the sample matrix. 1202067812 (RE36-10-7493).

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.

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Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
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
The following DER was generated for this SDG: 808569 1202067812 (RE36-10-7493).

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

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.

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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: _____ **Date:** 3/28/2010

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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: 963897

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE36-10-8292

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2198

GEL Sample ID: 248517001

Date Filtered: 17-MAR-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	.642	2.57	7.83	ug/kg		1	23-MAR-10 08:19	per0322104a
	Perchlorate Isotope Ratio			2.92			1	23-MAR-10 08:19	per0322104a
14797-73-0	Perchlorate-101	.642	2.57	8.14	ug/kg		1	23-MAR-10 08:19	per0322104a
	Perchlorate-O(18)			6.21	ug/kg		1	23-MAR-10 08:19	per0322104a

^ 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): 10–2198

Extract Batch Code: 963897

Date Filtered: 17–MAR–10

Matrix: SOIL

Sample ID: 1202067811

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.98	ug/kg	98.8		70 – 130
Perchlorate Isotope Ratio		3.27				–
Perchlorate–101	2.00	1.84	ug/kg	91.9		70 – 130
Perchlorate–O(18)		4.93	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): 10–2198

Extract Batch Code: 963897

Date Filtered: 17–MAR–10

Matrix: SOIL

Sample ID: 1202067814

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.05	ug/kg	102		70 – 130
Perchlorate Isotope Ratio		2.9				
Perchlorate–101	2.00	2.15	ug/kg	108		70 – 130
Perchlorate–O(18)		4.97	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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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

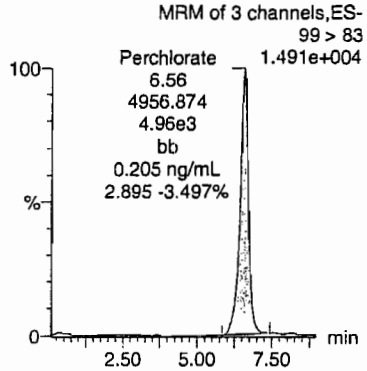
Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322077a
Date: 23-Mar-2010
Time: 02:49:43
ID: 1202067814
Vial: 3:1,C

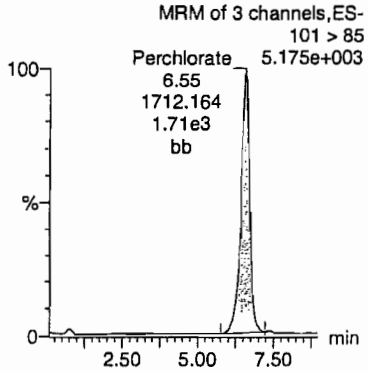
|LANL|963899|5020|IC5|

GWO 03-23-10

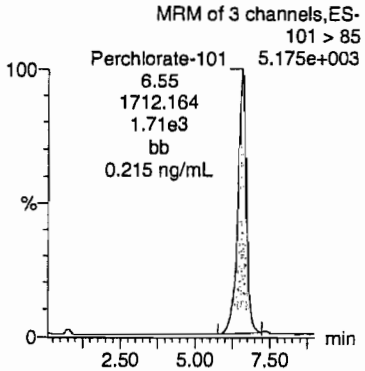
Perchlorate



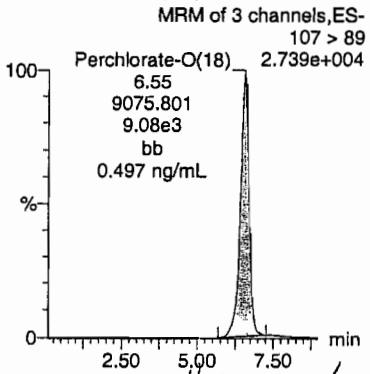
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067814	Perchlorate	99 > 83	6.56	4956.874	4956.874	bb			0.2049	102.47	2.47	1986.4...	2.90
1202067814	Perchlorate-101	101 > 85	6.55	1712.164	1712.164	bb			0.2150	107.52	7.52	241.853	
1202067814	Perchlorate-O(18)	107 > 89	6.55	9075.801	9075.801	bb			0.4974	99.48	-0.52	2512.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2198

Extract Batch Code: 963897

Date Extracted: 17–MAR–10

GEL MS/PS ID: 1202067812

Client ID: RE36–10–7493

GEL MSD/PSD ID: 1202067813

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.68	9.31	ug/kg	11.4	77.8	11.8	93.8	3.71	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.1		3		0		–
Perchlorate–101	2.68	9.27	ug/kg	11.2	71.2 *	12	100	6.77	30	75 – 125
Perchlorate–O(18)	0	6.42	ug/kg	6.55		6.78		3.43		–

^ 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):** 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	22–MAR–10	per0322001a	IPB001
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322001a	IPB001
Perchlorate	0.00	0	NA	22–MAR–10	per0322002a	IPB001
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322002a	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\per032210a.qld

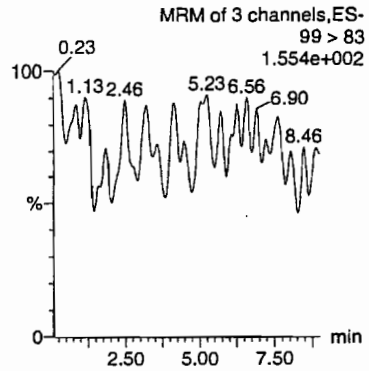
Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032210a.mdb 23 Mar 2010 10:24:18
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032210a.cdb 23 Mar 2010 10:24:34

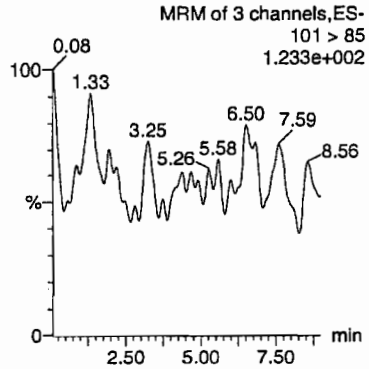
Name: per0322001a
Date: 22-Mar-2010
Time: 11:30:33
ID: IPB001
Vial: 1:1,A

CWW 03-23-10

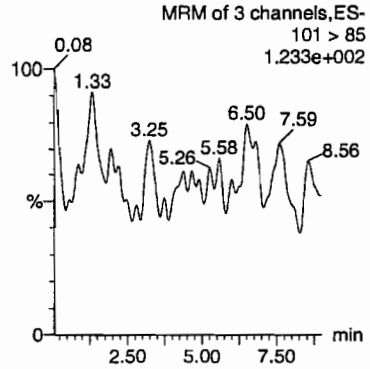
Perchlorate



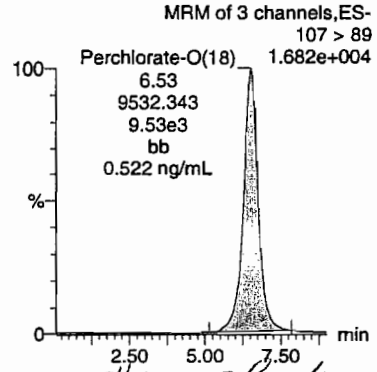
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	6.53	9532.343	9532.343	bb			0.5224	104.48	4.48	384.191	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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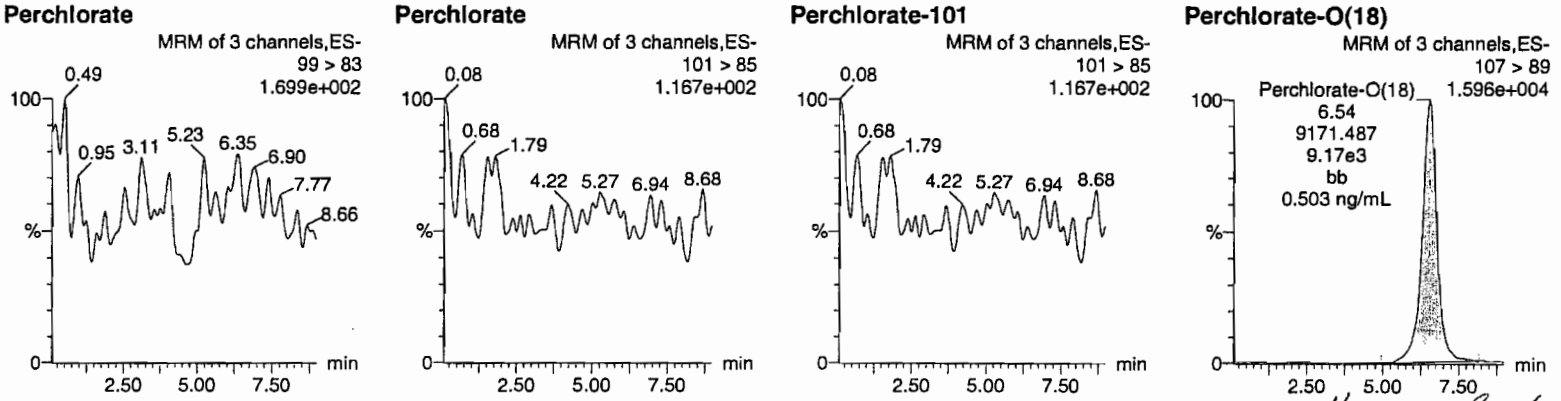
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322002a
Date: 22-Mar-2010
Time: 11:42:55
ID: IPB001
Vial: 1:1,A

WW 03-23-10



HM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	6.54	9171.487	9171.487	bb			0.5026	100.53	0.53	692.431	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	22–MAR–10	per0322008a	IPB002
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322008a	IPB002
Perchlorate	0.00	0	NA	22–MAR–10	per0322010a	IPB003
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322010a	IPB003
Perchlorate	0.00	0	NA	22–MAR–10	per0322023a	IPB004
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322023a	IPB004
Perchlorate	0.00	0	NA	22–MAR–10	per0322036a	IPB005
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322036a	IPB005
Perchlorate	0.00	0	NA	22–MAR–10	per0322040a	IPB006
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322040a	IPB006
Perchlorate	0.00	0	NA	22–MAR–10	per0322049a	IPB007
Perchlorate–101	0.00	0	NA	22–MAR–10	per0322049a	IPB007
Perchlorate	0.00	0	NA	22–MAR–10	per0322062a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2198

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	22–MAR–10	per0322062a	IPB008
Perchlorate	0.00	0	NA	23–MAR–10	per0322073a	IPB009
Perchlorate–101	0.00	0	NA	23–MAR–10	per0322073a	IPB009
Perchlorate	0.00	0	NA	23–MAR–10	per0322086a	IPB010
Perchlorate–101	0.00	0	NA	23–MAR–10	per0322086a	IPB010
Perchlorate	0.00	0	NA	23–MAR–10	per0322099a	IPB011
Perchlorate–101	0.00	0	NA	23–MAR–10	per0322099a	IPB011
Perchlorate	0.00	0	NA	23–MAR–10	per0322105a	IPB012
Perchlorate–101	0.00	0	NA	23–MAR–10	per0322105a	IPB012
Perchlorate	0.00	0	NA	23–MAR–10	per0322107a	IPB013
Perchlorate–101	0.00	0	NA	23–MAR–10	per0322107a	IPB013
Perchlorate	0.00	0	NA	23–MAR–10	per0322112a	IPB014
Perchlorate–101	0.00	0	NA	23–MAR–10	per0322112a	IPB014

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

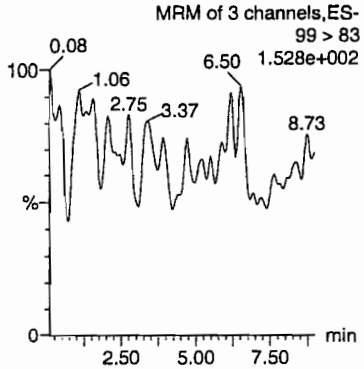
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

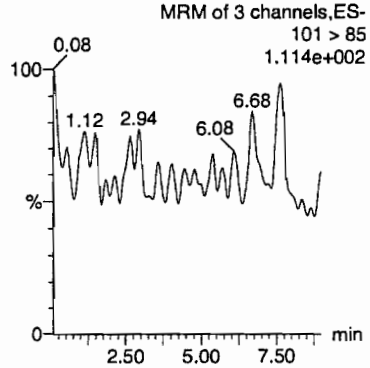
Name: per0322008a
Date: 22-Mar-2010
Time: 12:55:34
ID: IPB002
Vial: 1:1,A

CWW
03-23-10

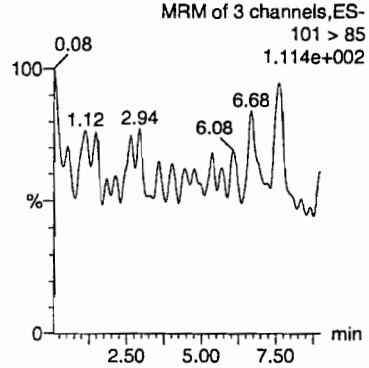
Perchlorate



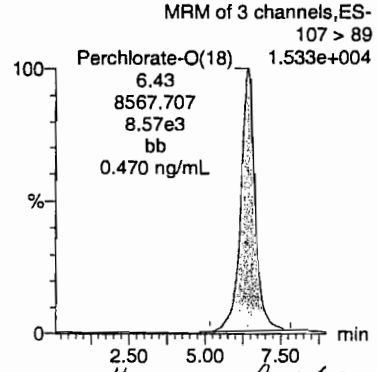
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmm 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	6.43	8567.707	8567.707	bb			0.4695	93.91	-6.09	840.144	

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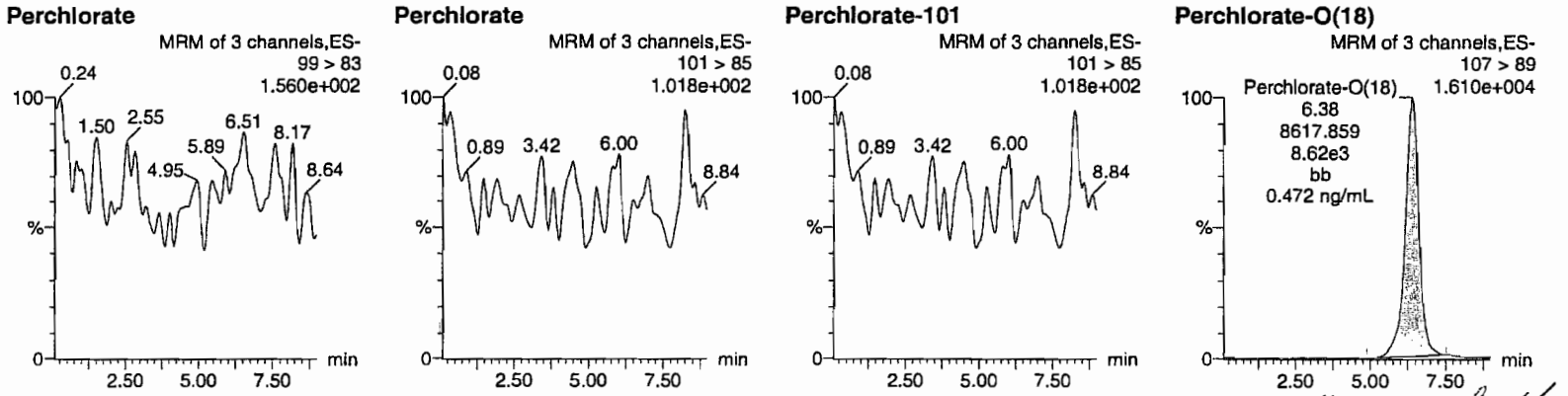
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322010a
Date: 22-Mar-2010
Time: 13:19:46
ID: IPB003
Vial: 1:1,A

CWW 03-23-10



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	6.38	8617.859	8617.859	bb			0.4723	94.46	-5.54	154.848	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

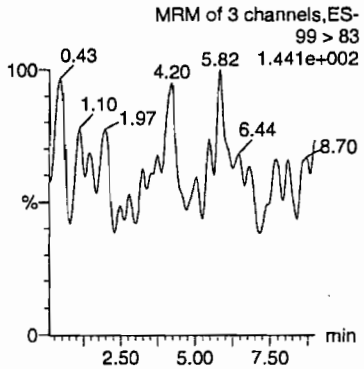
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

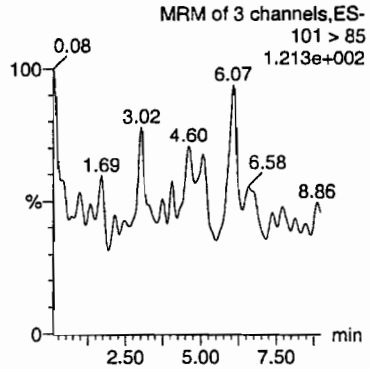
Name: per0322023a
Date: 22-Mar-2010
Time: 15:56:51
ID: IPB004
Vial: 1:1,A

03-23-10

Perchlorate



Perchlorate



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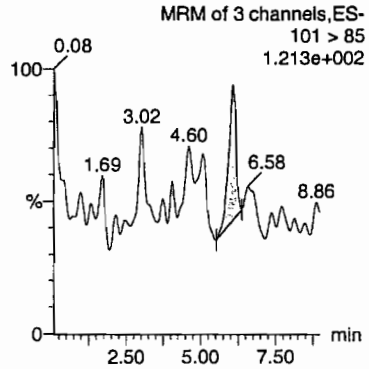
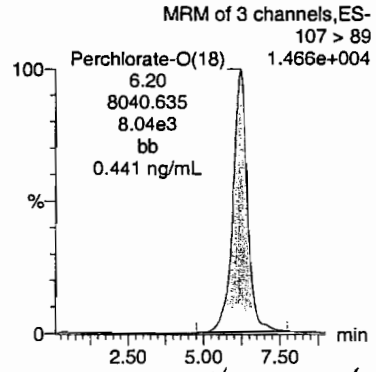


Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85	6.07	18.185	18.185	bb			0.0023			12.061	
IPB004	Perchlorate-O(18)	107 > 89	6.20	8040.635	8040.635	bb			0.4407	88.13	-11.87	1279.6...	

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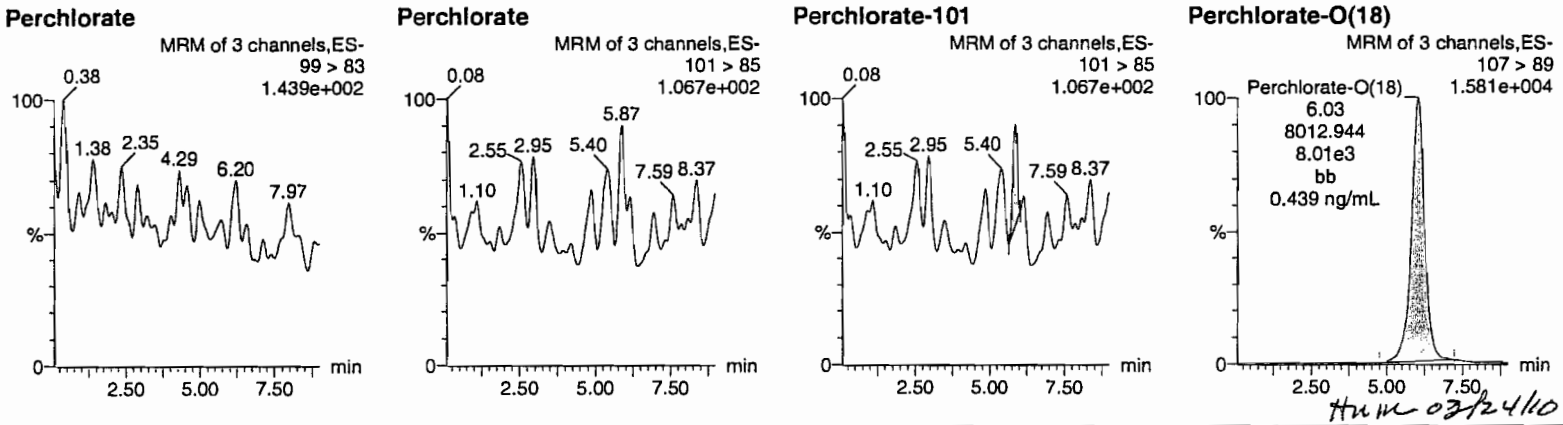
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322036a
Date: 22-Mar-2010
Time: 18:34:07
ID: IPB005
Vial: 1:1,A

CWW 03-23-10



HWM 03/24/10

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	5.87	7.461	7.461	bb			0.0009			13.240	
IPB005	Perchlorate-O(18)	107 > 89	6.03	8012.944	8012.944	bb			0.4391	87.83	-12.17	132.616	

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

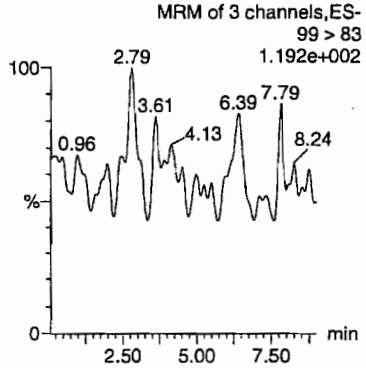
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

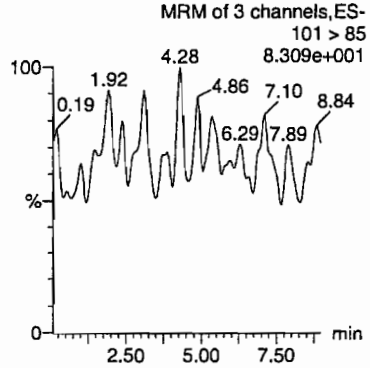
Name: per0322040a
Date: 22-Mar-2010
Time: 19:22:34
ID: IPB006
Vial: 1:1,A

CWW
03-23-10

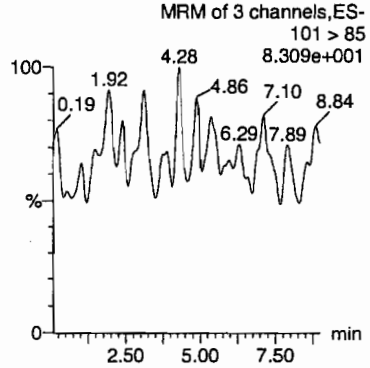
Perchlorate



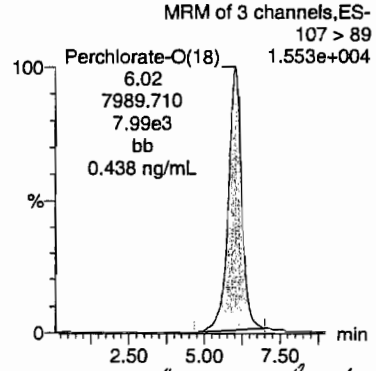
Perchlorate



Perchlorate-101



Perchlorate-O(18)



AMK 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	6.02	7989.710	7989.710	bb			0.4379	87.57	-12.43	2604.0...	

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

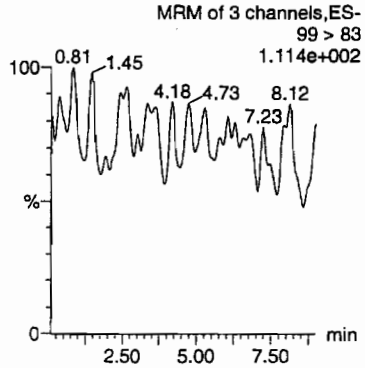
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

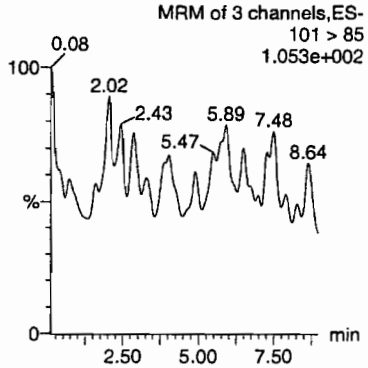
Name: per0322049a
Date: 22-Mar-2010
Time: 21:11:37
ID: IPB007
Vial: 1:1,A

CWW 03-23-10

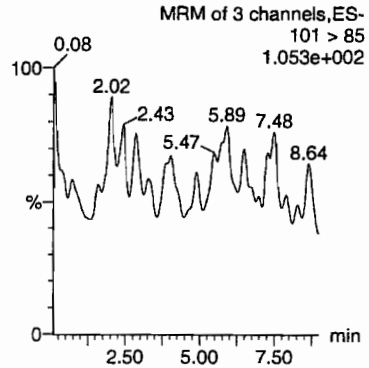
Perchlorate



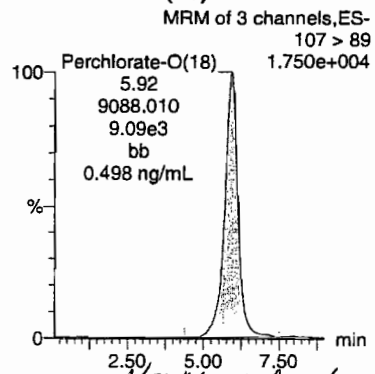
Perchlorate



Perchlorate-101



Perchlorate-O(18)



AMK 03/24/10

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	5.92	9088.010	9088.010	bb			0.4981	99.61	-0.39	614.610	

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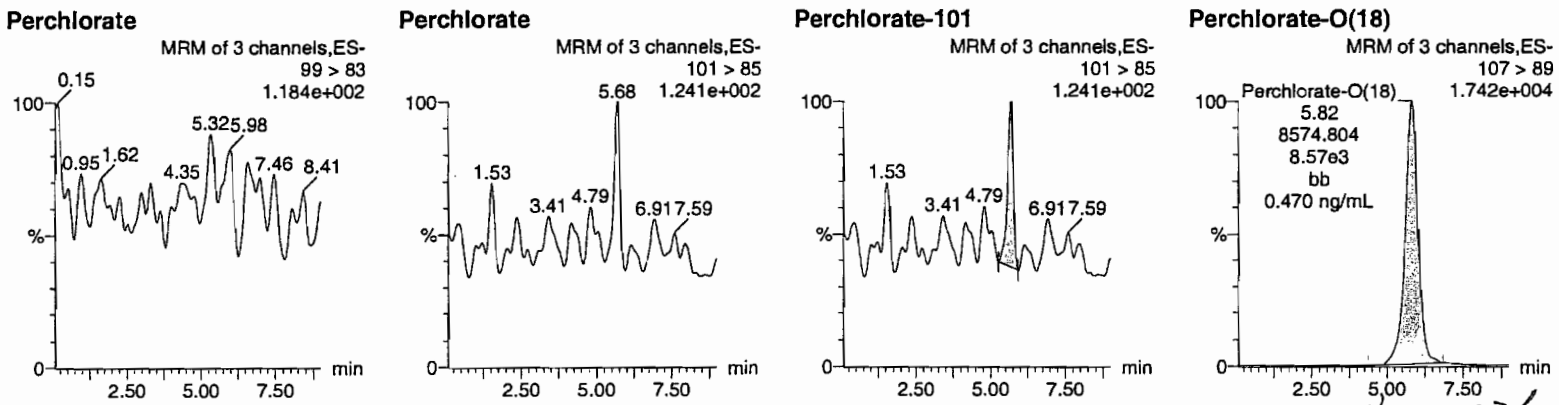
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322062a
Date: 22-Mar-2010
Time: 23:48:27
ID: IPB008
Vial: 1:1,A

CWW 03-23-10



Hum 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85	5.68	18.142	18.142	bb			0.0023			14.270	
IPB008	Perchlorate-O(18)	107 > 89	5.82	8574.804	8574.804	bb			0.4699	93.99	-6.01	787.450	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

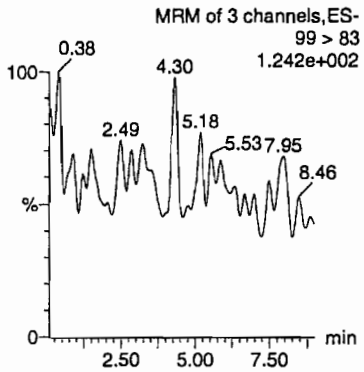
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

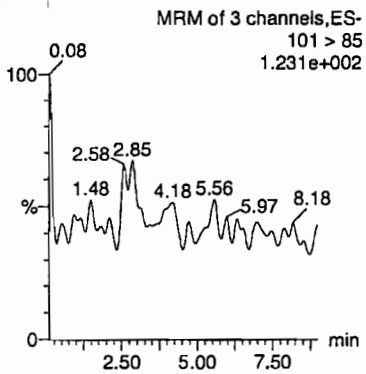
Name: per0322073a
Date: 23-Mar-2010
Time: 02:01:20
ID: IPB009
Vial: 1:1,A

CWW 03-23-10

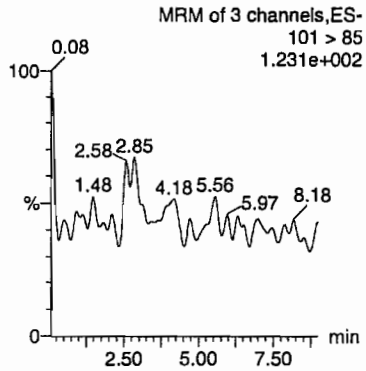
Perchlorate



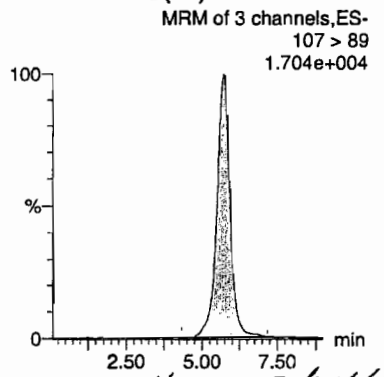
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	5.71	8642.843	8642.843	bb			0.4737	94.73	-5.27	276.563	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

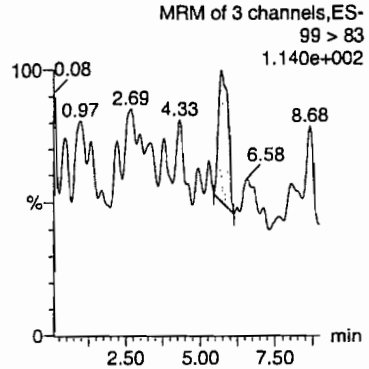
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

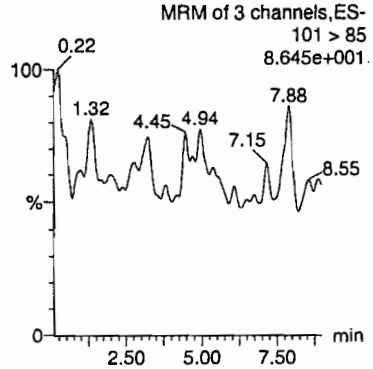
Name: per0322086a
Date: 23-Mar-2010
Time: 04:38:11
ID: IPB010
Vial: 1:1,A

Cmw 03-23-10

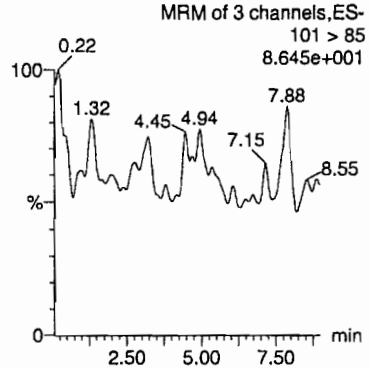
Perchlorate



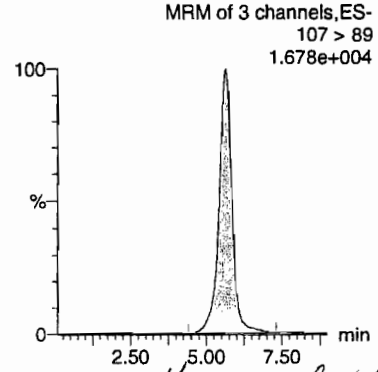
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HLM 03-24-10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	5.71	22.210	22.210	bb			0.0009			12.081	0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	5.64	8465.981	8465.981	bb			0.4640	92.79	-7.21	1511.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

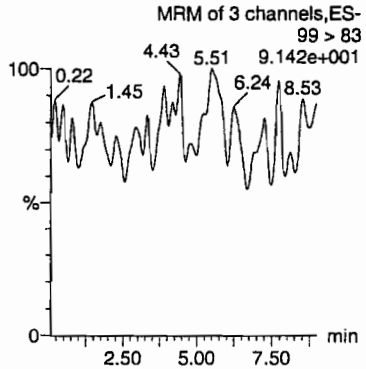
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

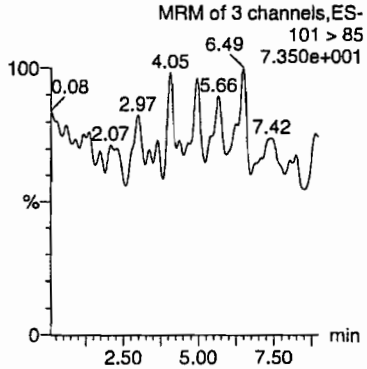
Name: per0322099a
Date: 23-Mar-2010
Time: 07:18:34
ID: IPB011
Vial: 1:1,A

03-23-10

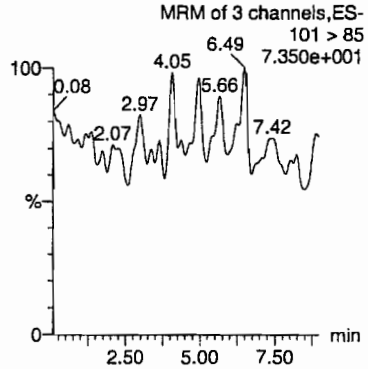
Perchlorate



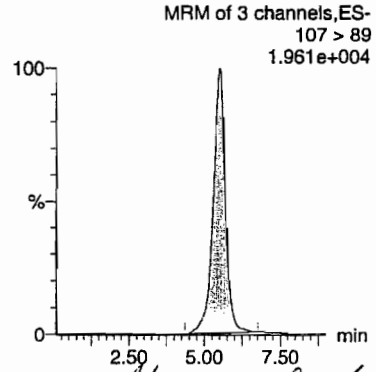
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Atm 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	5.51	9257.950	9257.950	bb			0.5074	101.48	1.48	541.356	

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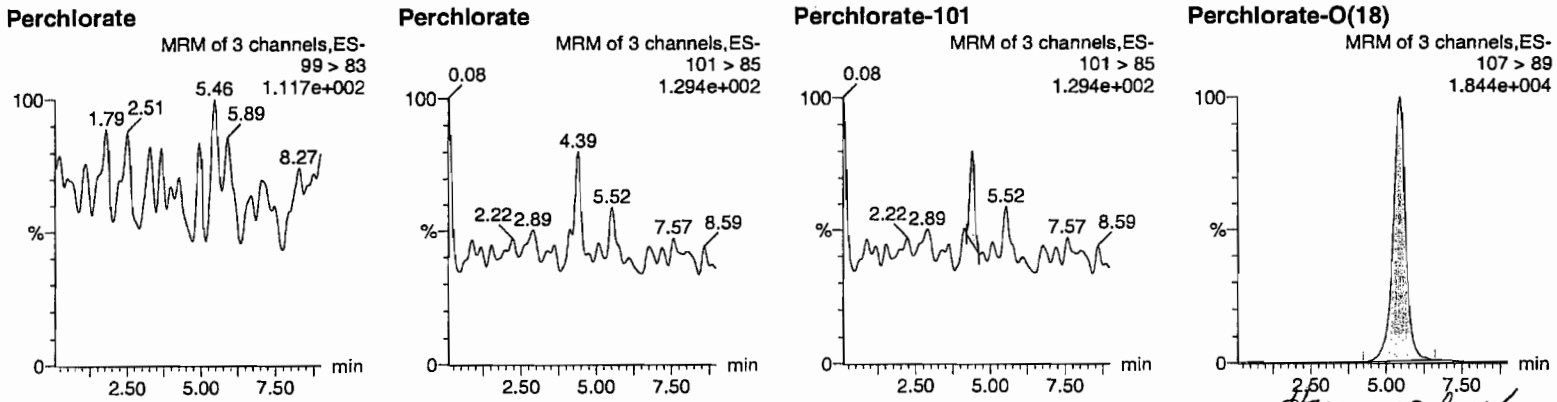
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322105a
Date: 23-Mar-2010
Time: 08:31:10
ID: IPB012
Vial: 1:1,A

CWW
03-23-10



HWM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB012	Perchlorate	99 > 83											0.00
IPB012	Perchlorate-101	101 > 85	4.39	8.788	8.788	bb			0.0011			16.388	
IPB012	Perchlorate-O(18)	107 > 89	5.45	8970.789	8970.789	bb			0.4916	98.33	-1.67	697.456	

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

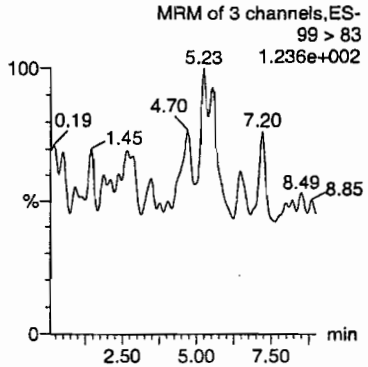
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

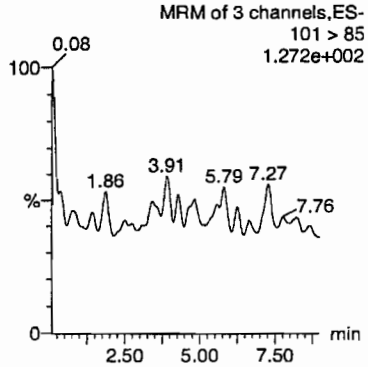
Name: per0322107a
Date: 23-Mar-2010
Time: 08:55:27
ID: IPB013
Vial: 1:1,A

CW 03-23-10

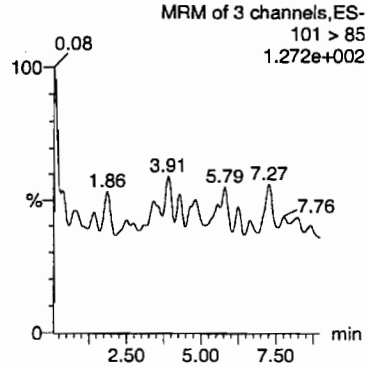
Perchlorate



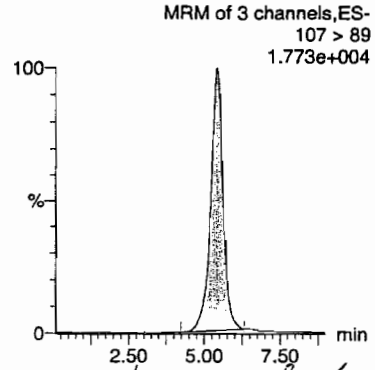
Perchlorate



Perchlorate-101



Perchlorate-O(18)



#2116 03-24-10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB013	Perchlorate	99 > 83											0.00
IPB013	Perchlorate-101	101 > 85											
IPB013	Perchlorate-O(18)	107 > 89	5.42	8393.238	8393.238	bb			0.4600	92.00	-8.00	398.146	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

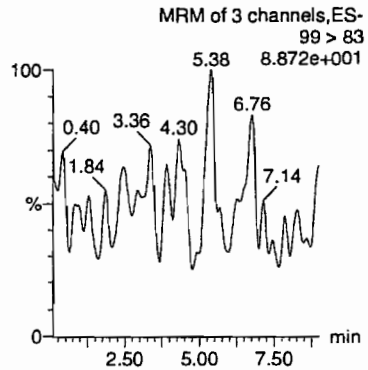
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

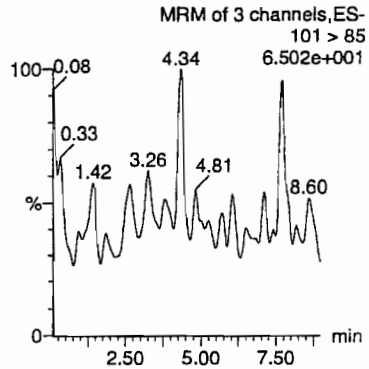
Name: per0322112a
Date: 23-Mar-2010
Time: 09:55:44
ID: IPB014
Vial: 1:1,A

CWW 03-23-10

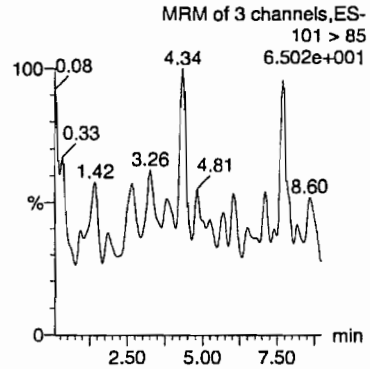
Perchlorate



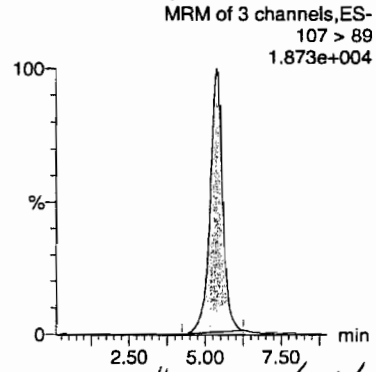
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HWW 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB014	Perchlorate	99 > 83											0.00
IPB014	Perchlorate-101	101 > 85											
IPB014	Perchlorate-O(18)	107 > 89	5.37	8920.187	8920.187	bb			0.4889	97.77	-2.23	1004.3...	

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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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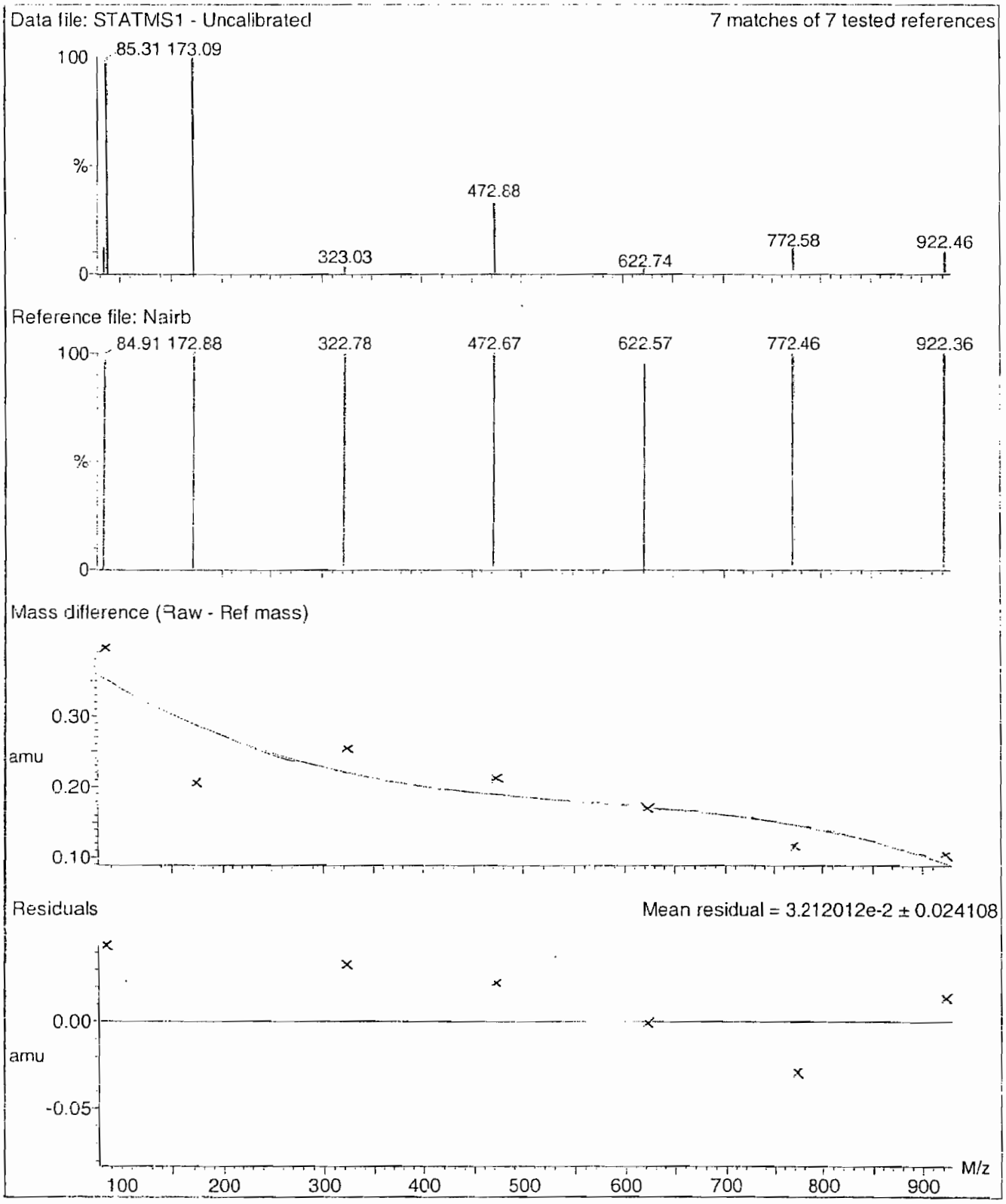
QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CUSS 01-08-08



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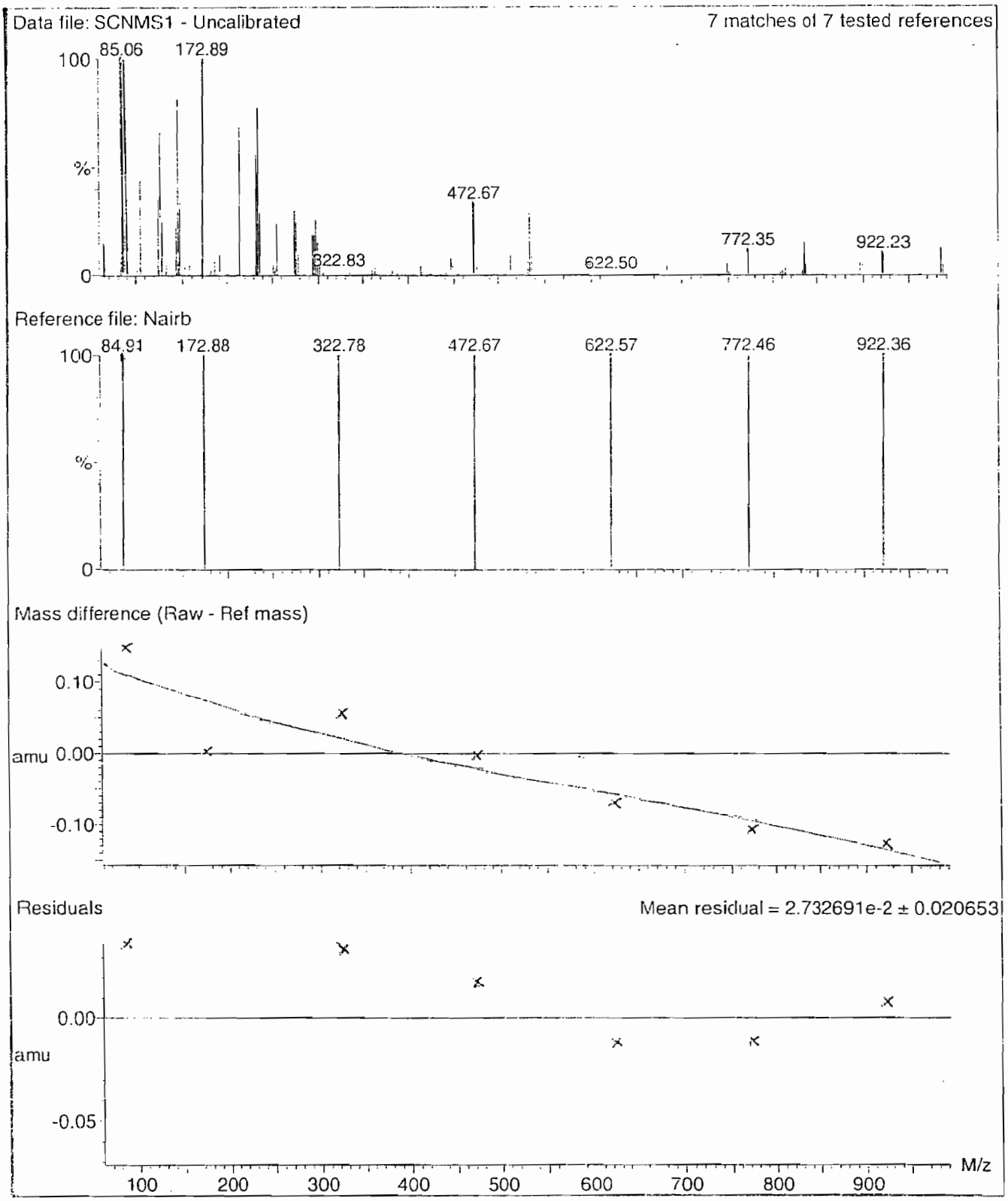
Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008



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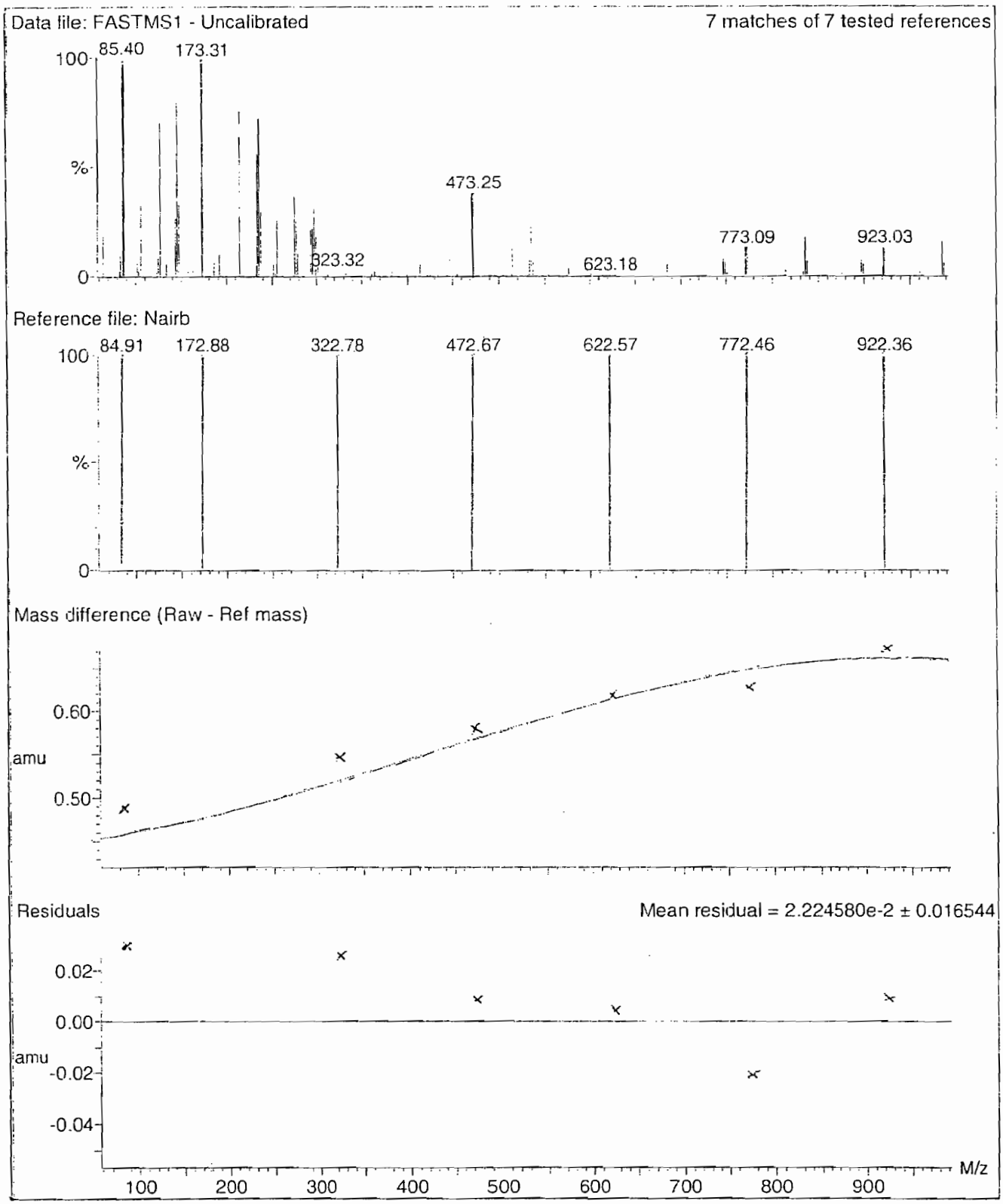
Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008



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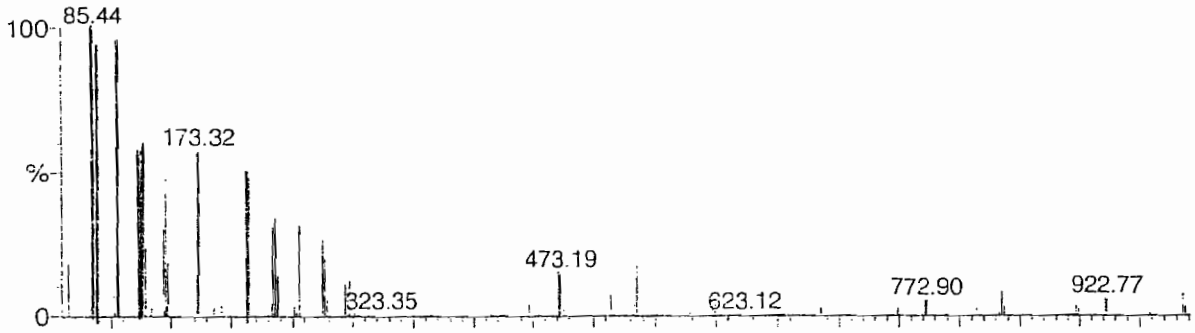
Calibration Report - MS2 Scan Speed Compensation

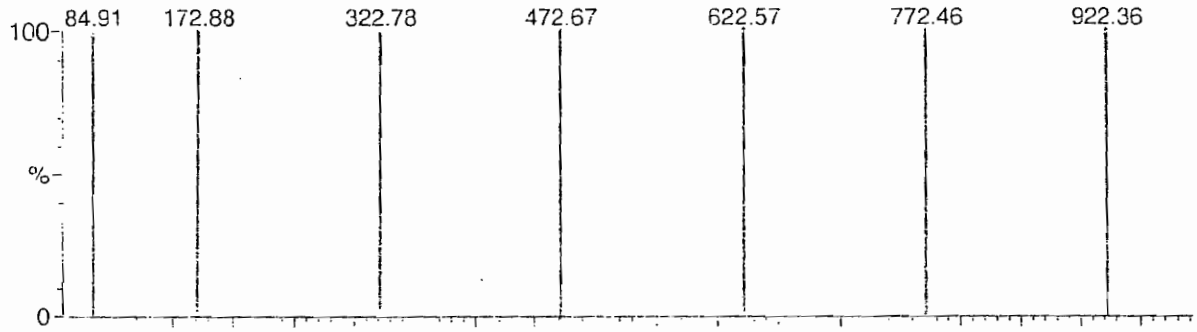
Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

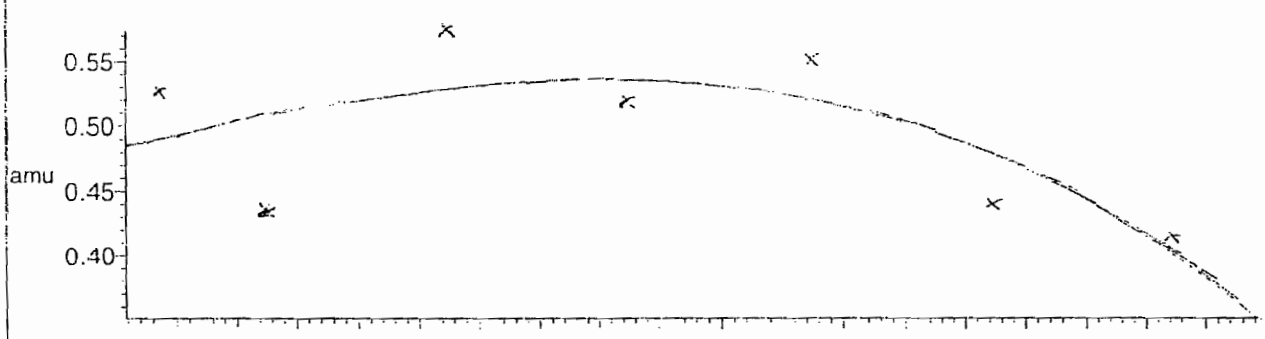
7 matches of 7 tested references



Reference file: Nairb

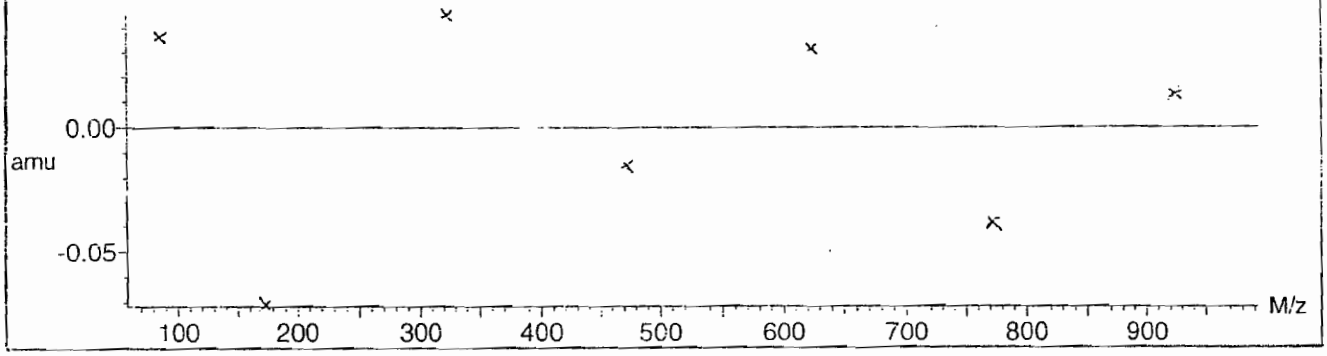


Mass difference (Raw - Ref mass)



Residuals

Mean residual = 3.598289e-2 ± 0.017899



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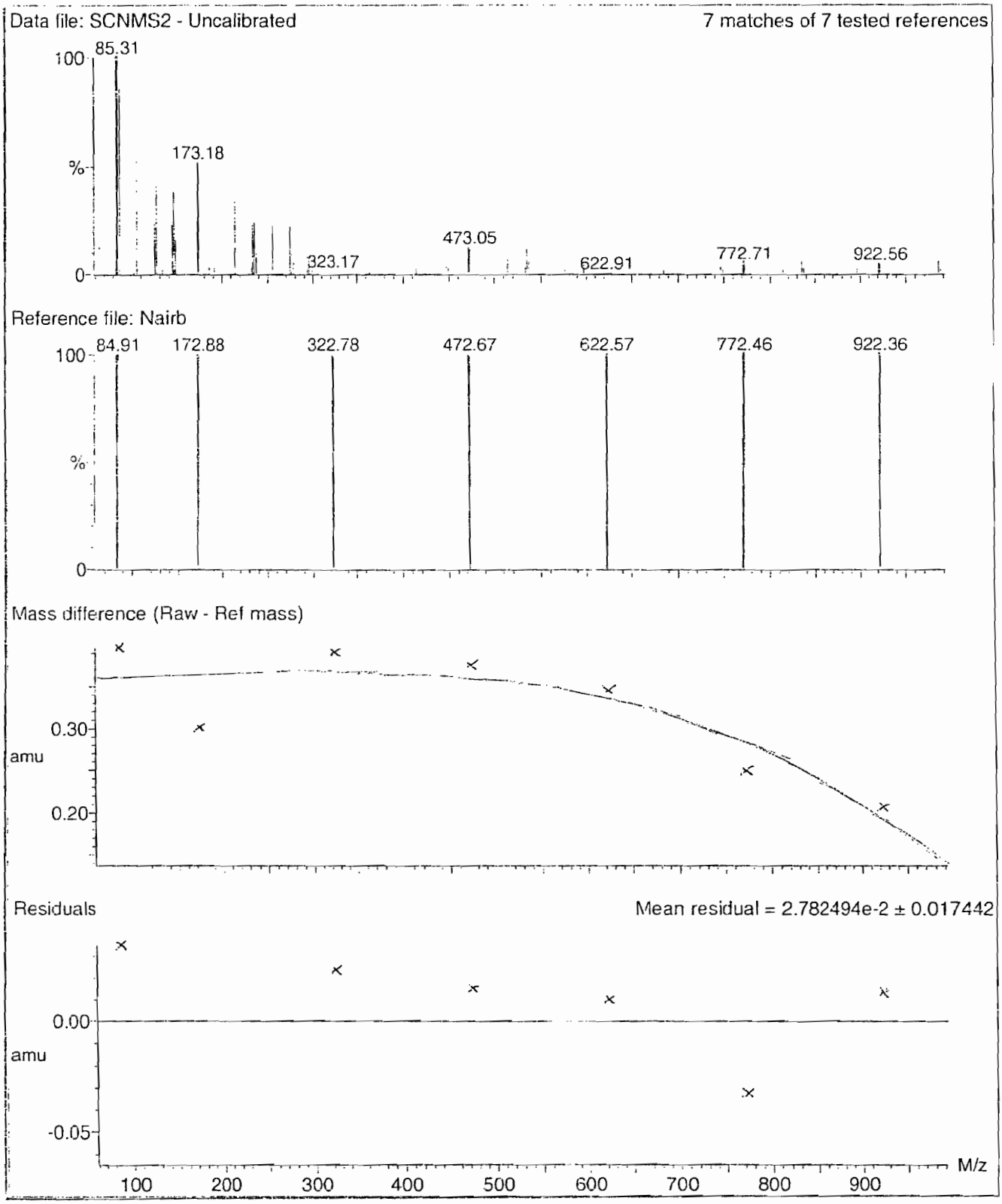
Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008



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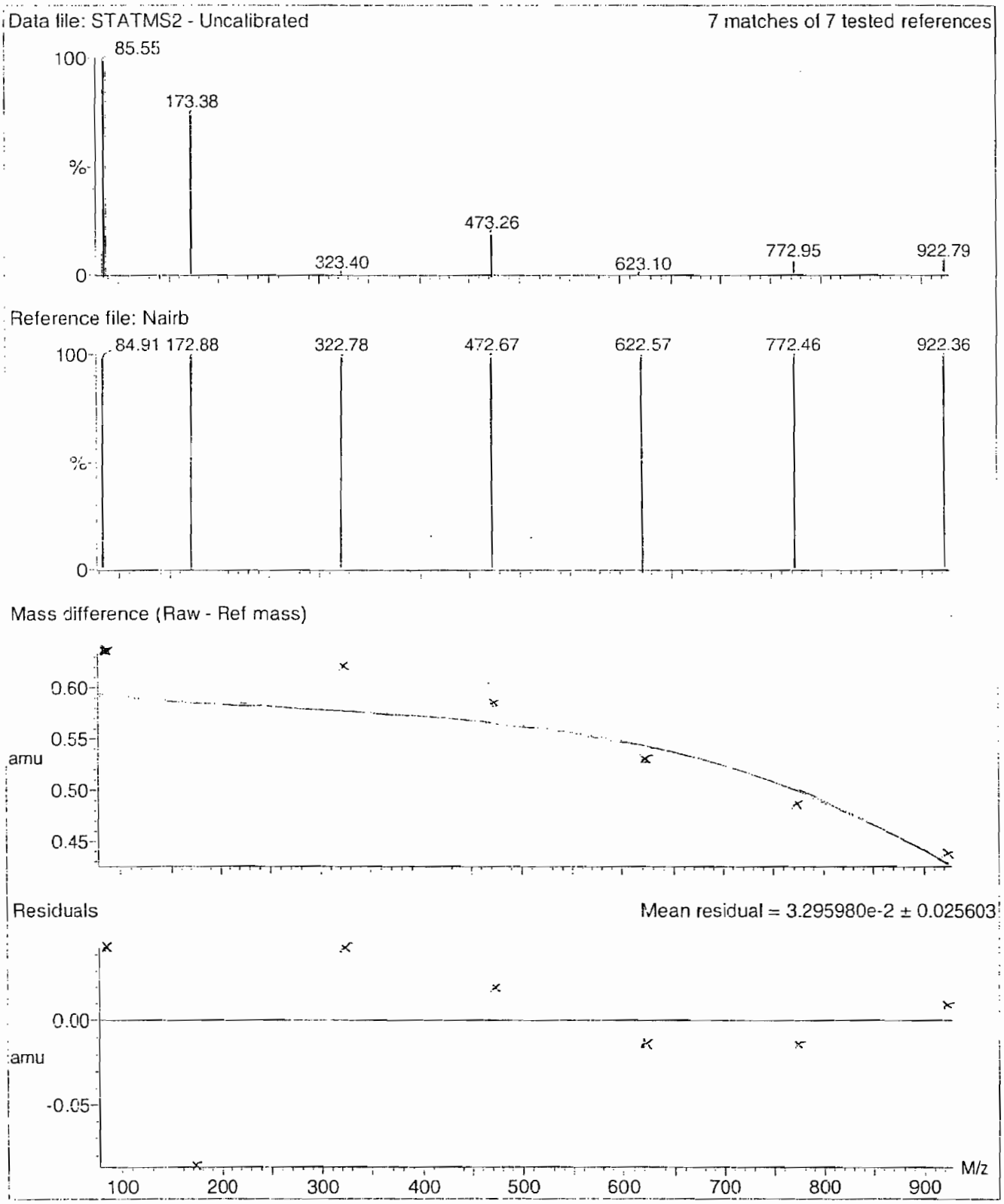
Calibration Report - MS2 Static

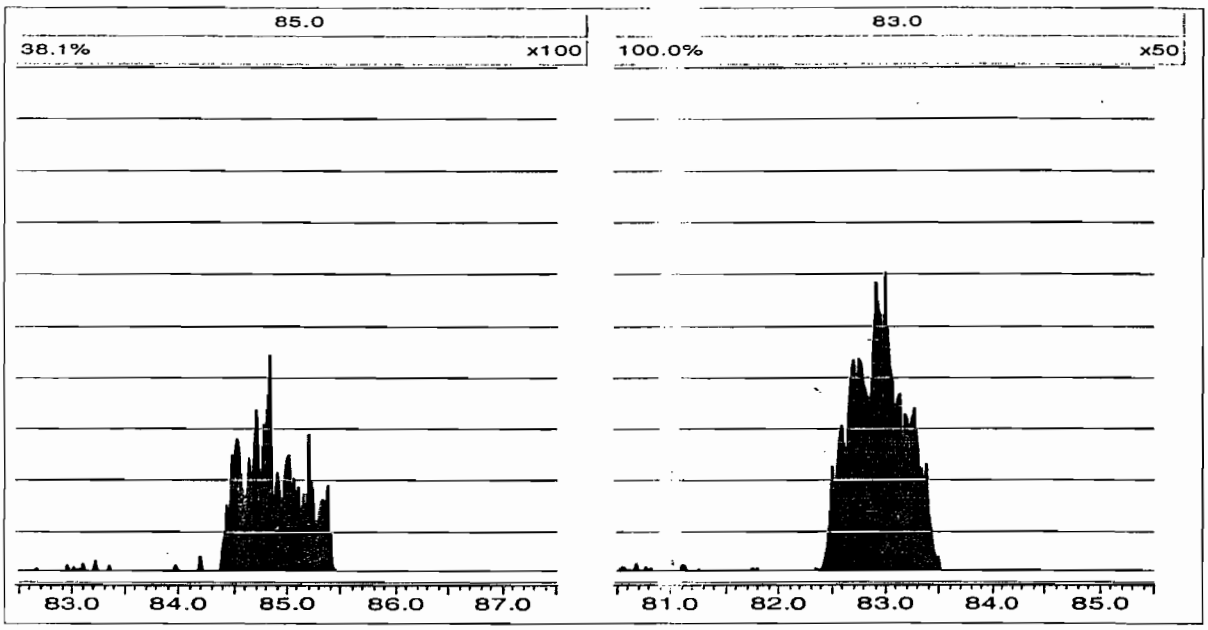
Printed: Tue Jan 08 12:21:59 2008



PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, March 22, 2010 08:32:35 Eastern Standard Time



Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2198

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	**per0322006a**	**22–MAR–10**	**9056.69**				
Lower Area Limit			**4528.345**				
Upper Area Limit			**18113.38**				
1202067810	per0322075a	23–MAR–10 02:25	8975.38	5.72	5.7686	1.008	
1202067811	per0322076a	23–MAR–10 02:37	8991.55	5.71	5.73125	1.004	
1202067814	per0322077a	23–MAR–10 02:49	9075.8	6.55	6.56365	1.002	
248517001	per0322104a	23–MAR–10 08:19	8833.05	5.46	5.45793	1	

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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: SOIL

Extraction Batch ID: 963897

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE36-10-8292

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2198

GEL Sample ID: 248517001

Date Filtered: 17-MAR-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	.642	2.57	7.83	ug/kg		1	23-MAR-10 08:19	per0322104a
	Perchlorate Isotope Ratio			2.92			1	23-MAR-10 08:19	per0322104a
14797-73-0	Perchlorate-101	.642	2.57	8.14	ug/kg		1	23-MAR-10 08:19	per0322104a
	Perchlorate-O(18)			6.21	ug/kg		1	23-MAR-10 08:19	per0322104a

^ 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\per032210a.qld

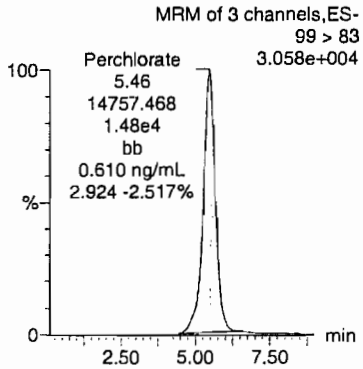
Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322104a
Date: 23-Mar-2010
Time: 08:19:09
ID: 248517001
Vial: 3:4,F

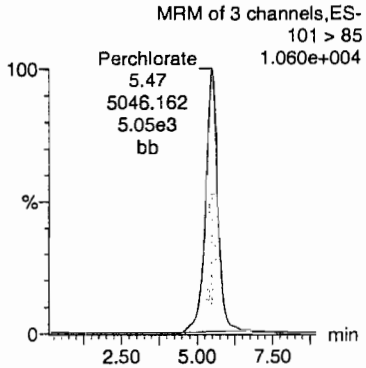
LFNL | 963844 | 50120 | 1 |

03-23-10

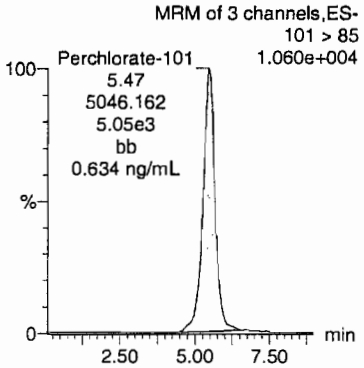
Perchlorate



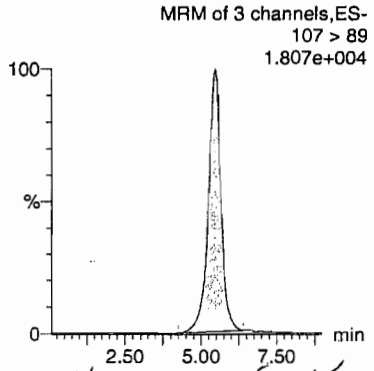
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HWM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248517001	Perchlorate	99 > 83	5.46	14757.468	14757.468	bb			0.6102			1345.7...	2.92
248517001	Perchlorate-101	101 > 85	5.47	5046.162	5046.162	bb			0.6338			1058.7...	
248517001	Perchlorate-O(18)	107 > 89	5.46	8833.045	8833.045	bb			0.4841	96.82	-3.18	408.109	

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):** 10–2198

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 22–MAR–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: 24186.2

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):** 10–2198

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 22–MAR–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: 7962.2

Response Type: External Standard

Curve Type: RF

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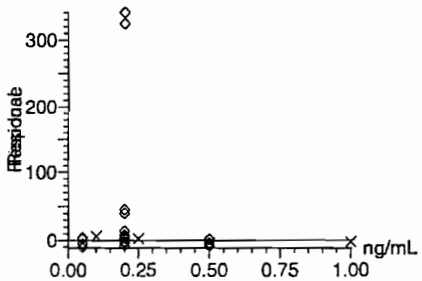
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

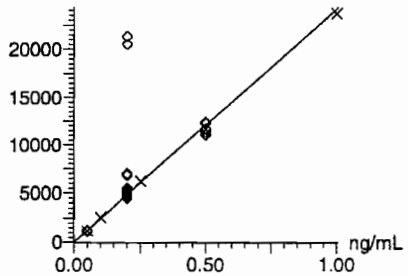
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032210a.mdb 23 Mar 2010 10:24:18
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032210a.cdb 23 Mar 2010 10:24:34

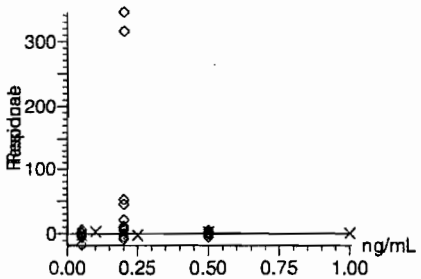
Compound name: Perchlorate
Response Factor: 24186.2
RRF SD: 1053.84, % Relative SD: 4.3572
Response type: External Std, Area
Curve type: RF

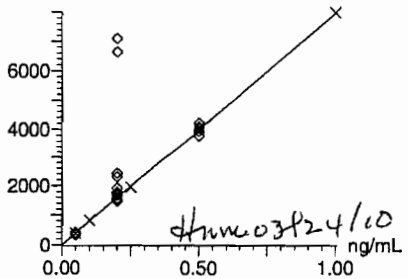




CW
03-23-10

Compound name: Perchlorate-101
Response Factor: 7962.2
RRF SD: 189.293, % Relative SD: 2.3774
Response type: External Std, Area
Curve type: RF





Hmc 03/24/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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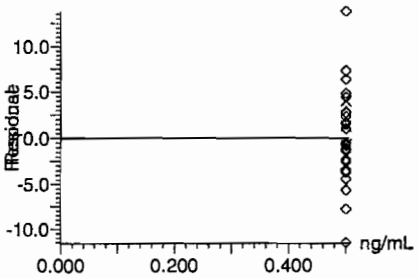
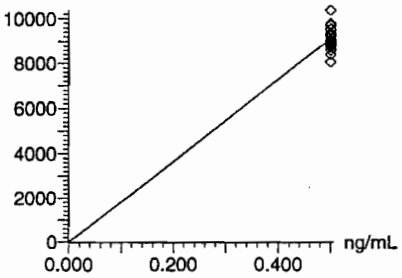
Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 18246.7
RRF SD: 488.232, % Relative SD: 2.67573
Response type: External Std, Area
Curve type: RF





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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

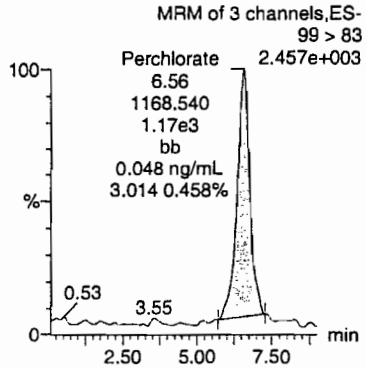
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

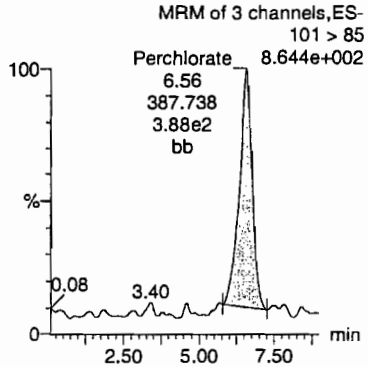
Name: per0322003a
Date: 22-Mar-2010
Time: 11:55:05
ID: WCL100318-01
Vial: 1:1,B

Perp
Gwo
03-23-10

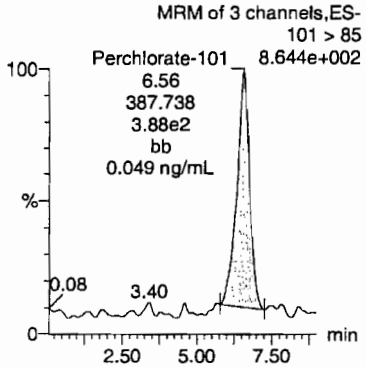
Perchlorate



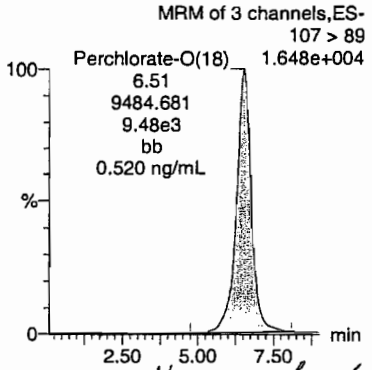
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HLM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-01	Perchlorate	99 > 83	6.56	1168.540	1168.540	bb			0.0483	96.63	-3.37	181.559	3.01
WCL100318-01	Perchlorate-101	101 > 85	6.56	387.738	387.738	bb			0.0487	97.39	-2.61	26.717	
WCL100318-01	Perchlorate-O(18)	107 > 89	6.51	9484.681	9484.681	bb			0.5198	103.96	3.96	868.186	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

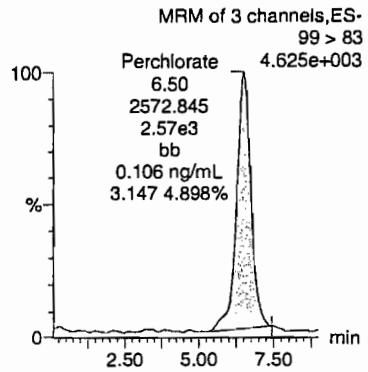
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

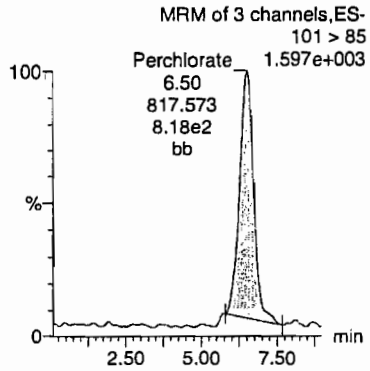
Name: per0322004a
Date: 22-Mar-2010
Time: 12:07:15
ID: WCL100318-02
Vial: 1:1,C

CWW 03-23-10

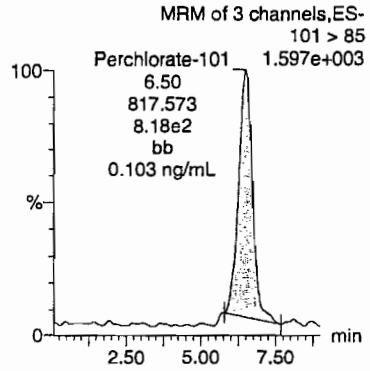
Perchlorate



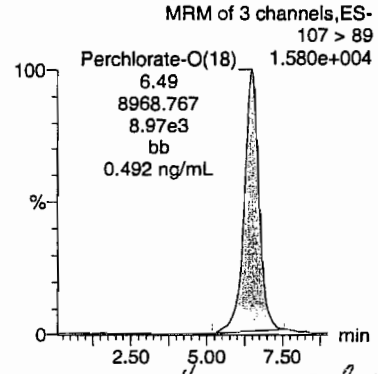
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HWM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-02	Perchlorate	99 > 83	6.50	2572.845	2572.845	bb			0.1064	106.38	6.38	133.894	3.15
WCL100318-02	Perchlorate-101	101 > 85	6.50	817.573	817.573	bb			0.1027	102.68	2.68	165.867	
WCL100318-02	Perchlorate-O(18)	107 > 89	6.49	8968.767	8968.767	bb			0.4915	98.31	-1.69	119.873	

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

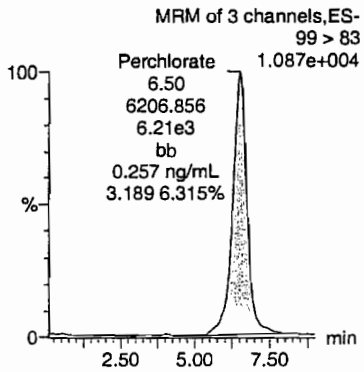
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

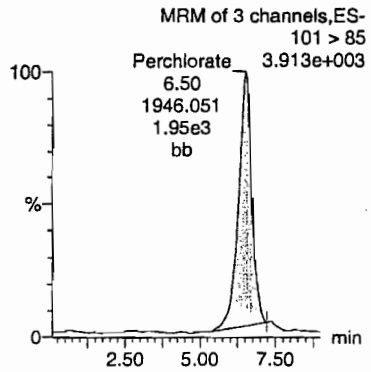
Name: per0322005a
Date: 22-Mar-2010
Time: 12:19:24
ID: WCL100318-03
Vial: 1:1,D

AWS
03-23-10

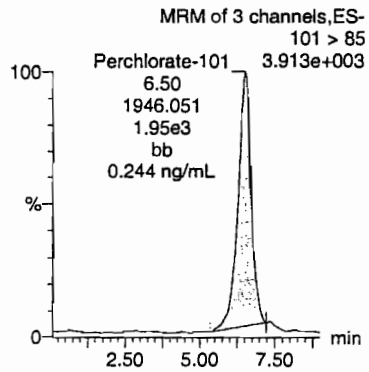
Perchlorate



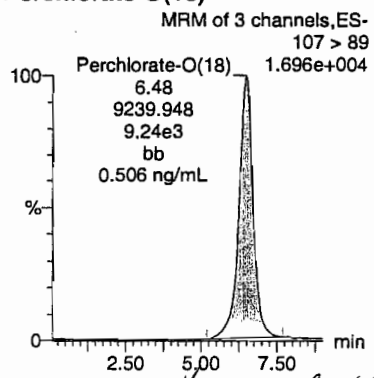
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-03	Perchlorate	99 > 83	6.50	6206.856	6206.856	bb			0.2566	102.65	2.65	139.150	3.19
WCL100318-03	Perchlorate-101	101 > 85	6.50	1946.051	1946.051	bb			0.2444	97.76	-2.24	249.518	
WCL100318-03	Perchlorate-O(18)	107 > 89	6.48	9239.948	9239.948	bb			0.5064	101.28	1.28	2508.4...	

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

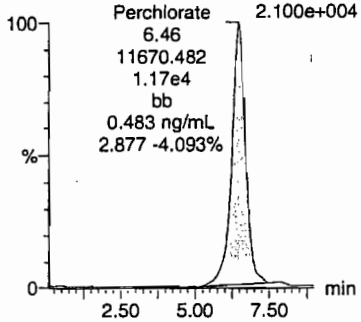
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

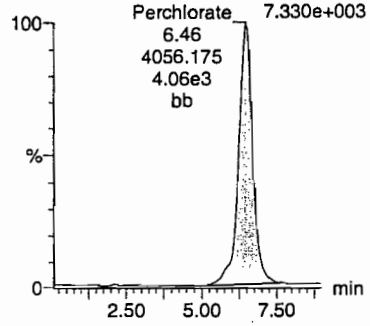
Name: per0322006a
Date: 22-Mar-2010
Time: 12:31:25
ID: WCL100318-04
Vial: 1:1,E

03-23-10

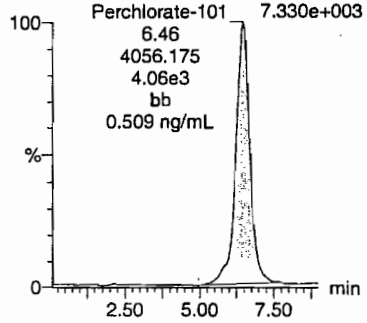
Perchlorate



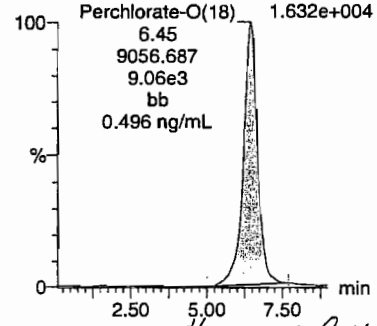
Perchlorate



Perchlorate-101



Perchlorate-O(18)



03-24-10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-04	Perchlorate	99 > 83	6.46	11670.482	11670.482	bb			0.4825	96.51	-3.49	183.709	2.88
WCL100318-04	Perchlorate-101	101 > 85	6.46	4056.175	4056.175	bb			0.5094	101.89	1.89	236.673	
WCL100318-04	Perchlorate-O(18)	107 > 89	6.45	9056.687	9056.687	bb			0.4963	99.27	-0.73	520.805	

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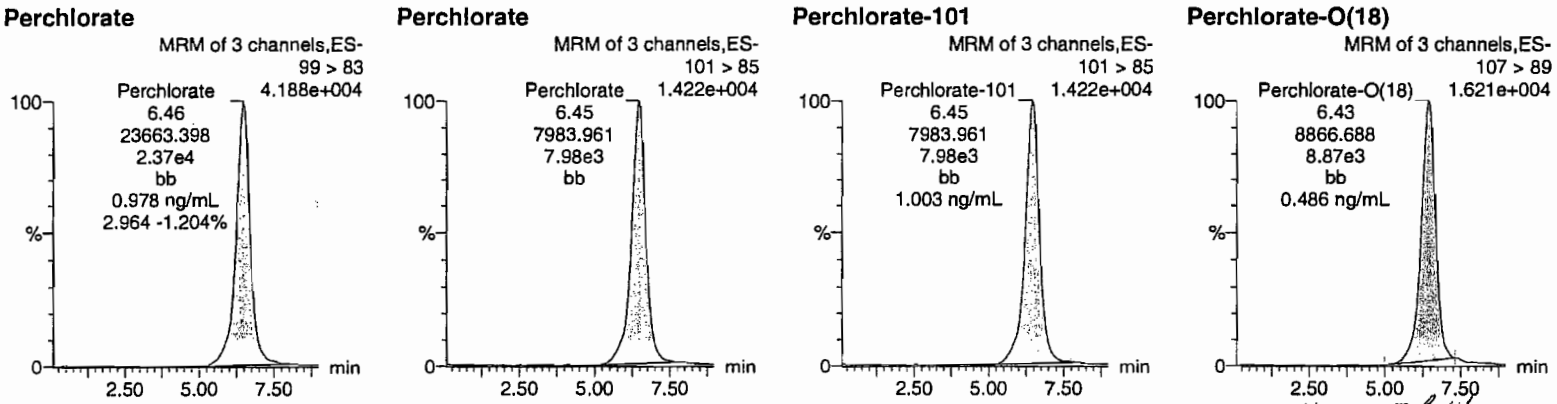
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322007a
Date: 22-Mar-2010
Time: 12:43:26
ID: WCL100318-05
Vial: 1:1,F

Gmo
03-23-10



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-05	Perchlorate	99 > 83	6.46	23663.398	23663.398	bb			0.9784	97.84	-2.16	1973.6...	2.96
WCL100318-05	Perchlorate-101	101 > 85	6.45	7983.961	7983.961	bb			1.0027	100.27	0.27	257.728	
WCL100318-05	Perchlorate-O(18)	107 > 89	6.43	8866.688	8866.688	bb			0.4859	97.19	-2.81	581.435	

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	96.71	22–MAR–10 13:07	per0322009a
Perchlorate Isotope Ratio		2.87		22–MAR–10 13:07	per0322009a
Perchlorate–101	.5	.51	102.4	22–MAR–10 13:07	per0322009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322009a
Date: 22-Mar-2010
Time: 13:07:36
ID: WCL100318-06ICV
Vial: 1:2,A

Pwo
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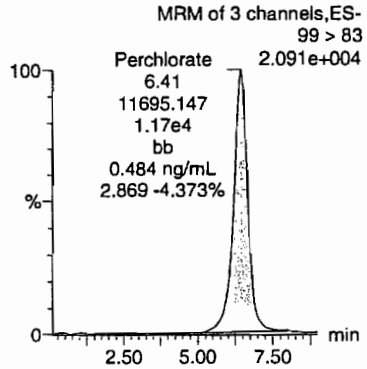
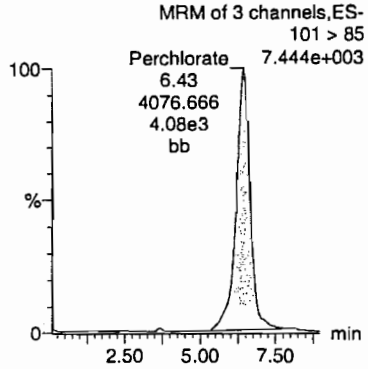
03-23-10

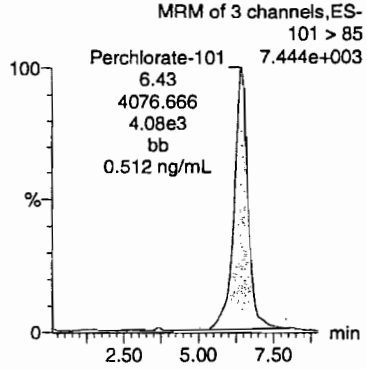
Perchlorate



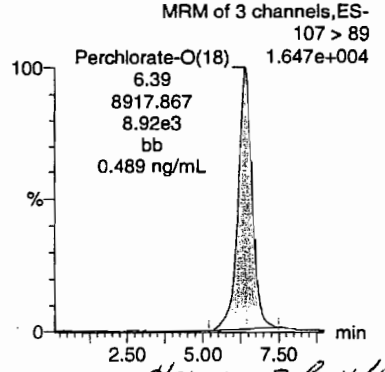
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06ICV	Perchlorate	99 > 83	6.41	11695.147	11695.147	bb			0.4835	96.71	-3.29	250.846	2.87
WCL100318-06ICV	Perchlorate-101	101 > 85	6.43	4076.666	4076.666	bb			0.5120	102.40	2.40	1210.6...	
WCL100318-06ICV	Perchlorate-O(18)	107 > 89	6.39	8917.867	8917.867	bb			0.4887	97.75	-2.25	457.149	

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	93.78	22–MAR–10 15:44	per0322022a
Perchlorate Isotope Ratio		2.99		22–MAR–10 15:44	per0322022a
Perchlorate–101	.5	.48	95.32	22–MAR–10 15:44	per0322022a
Perchlorate	.5	.45	90.99	22–MAR–10 18:21	per0322035a
Perchlorate Isotope Ratio		2.88		22–MAR–10 18:21	per0322035a
Perchlorate–101	.5	.48	95.82	22–MAR–10 18:21	per0322035a
Perchlorate	.5	.51	102.25	22–MAR–10 20:59	per0322048a
Perchlorate Isotope Ratio		2.94		22–MAR–10 20:59	per0322048a
Perchlorate–101	.5	.53	105.57	22–MAR–10 20:59	per0322048a
Perchlorate	.5	.48	95.78	22–MAR–10 23:36	per0322061a
Perchlorate Isotope Ratio		2.93		22–MAR–10 23:36	per0322061a
Perchlorate–101	.5	.5	99.27	22–MAR–10 23:36	per0322061a
Perchlorate	.5	.51	102.76	23–MAR–10 01:49	per0322072a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.08		23–MAR–10 01:49	per0322072a
Perchlorate–101	.5	.51	101.37	23–MAR–10 01:49	per0322072a
Perchlorate	.5	.46	92.01	23–MAR–10 04:25	per0322085a
Perchlorate Isotope Ratio		2.76		23–MAR–10 04:25	per0322085a
Perchlorate–101	.5	.51	101.12	23–MAR–10 04:25	per0322085a
Perchlorate	.5	.49	97.02	23–MAR–10 07:02	per0322098a
Perchlorate Isotope Ratio		3.11		23–MAR–10 07:02	per0322098a
Perchlorate–101	.5	.47	94.9	23–MAR–10 07:02	per0322098a
Perchlorate	.5	.5	100.89	23–MAR–10 09:43	per0322111a
Perchlorate Isotope Ratio		3.1		23–MAR–10 09:43	per0322111a
Perchlorate–101	.5	.49	98.95	23–MAR–10 09:43	per0322111a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

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Date: 22-Mar-2010
Time: 15:44:41
ID: WCL100318-06CCV
Vial: 1:2,A

Pass
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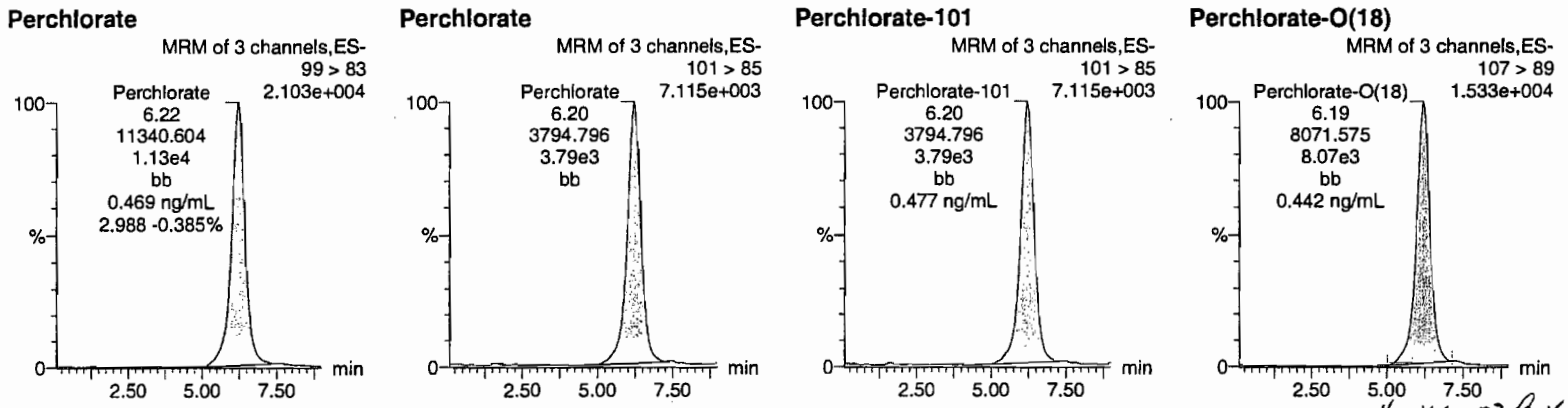
03-23-10



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	6.22	11340.604	11340.604	bb			0.4689	93.78	-6.22	78.315	2.99
WCL100318-06CCV	Perchlorate-101	101 > 85	6.20	3794.796	3794.796	bb			0.4766	95.32	-4.68	121.502	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	6.19	8071.575	8071.575	bb			0.4424	88.47	-11.53	409.576	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322035a
Date: 22-Mar-2010
Time: 18:21:57
ID: WCL100318-06CCV
Vial: 1:2,A

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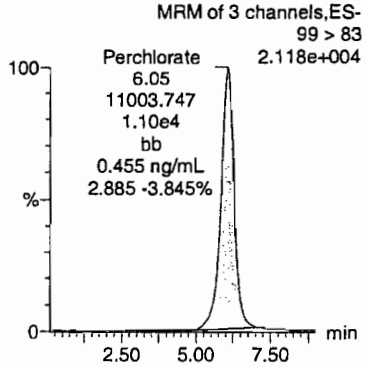
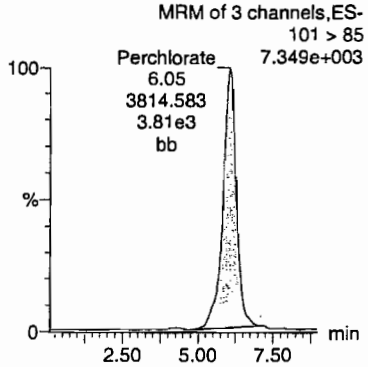
03-23-10

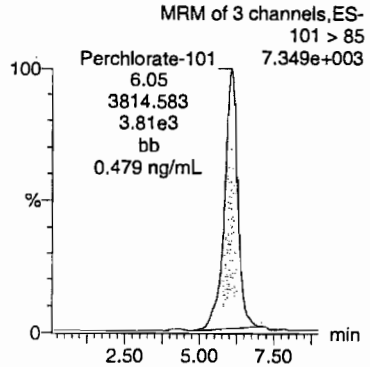
Perchlorate



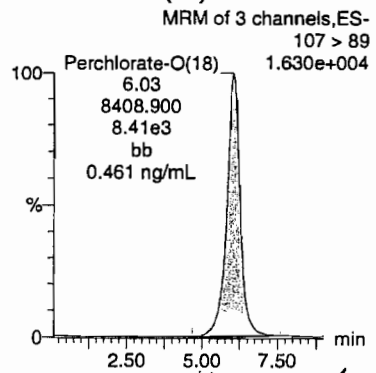
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	6.05	11003.747	11003.747	bb			0.4550	90.99	-9.01	623.072	2.88
WCL100318-06CCV	Perchlorate-101	101 > 85	6.05	3814.583	3814.583	bb			0.4791	95.82	-4.18	143.478	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	6.03	8408.900	8408.900	bb			0.4608	92.17	-7.83	575.189	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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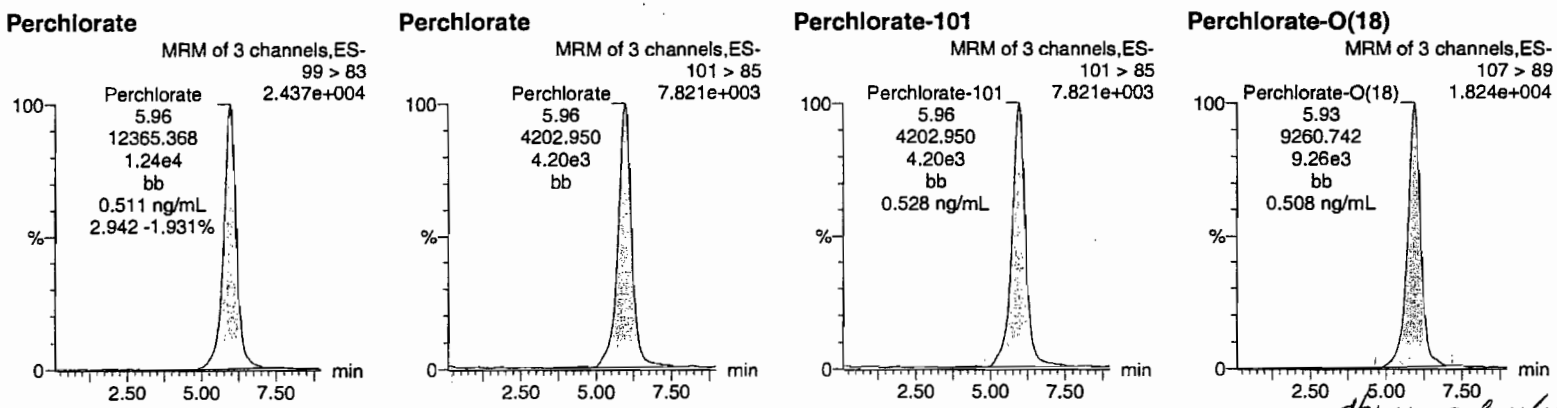
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322048a
Date: 22-Mar-2010
Time: 20:59:20
ID: WCL100318-06CCV
Vial: 1:2,A

Pass
ano
03-27-10



HMC 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.96	12365.368	12365.368	bb			0.5113	102.25	2.25	749.044	2.94
WCL100318-06CCV	Perchlorate-101	101 > 85	5.96	4202.950	4202.950	bb			0.5279	105.57	5.57	86.876	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.93	9260.742	9260.742	bb			0.5075	101.51	1.51	650.738	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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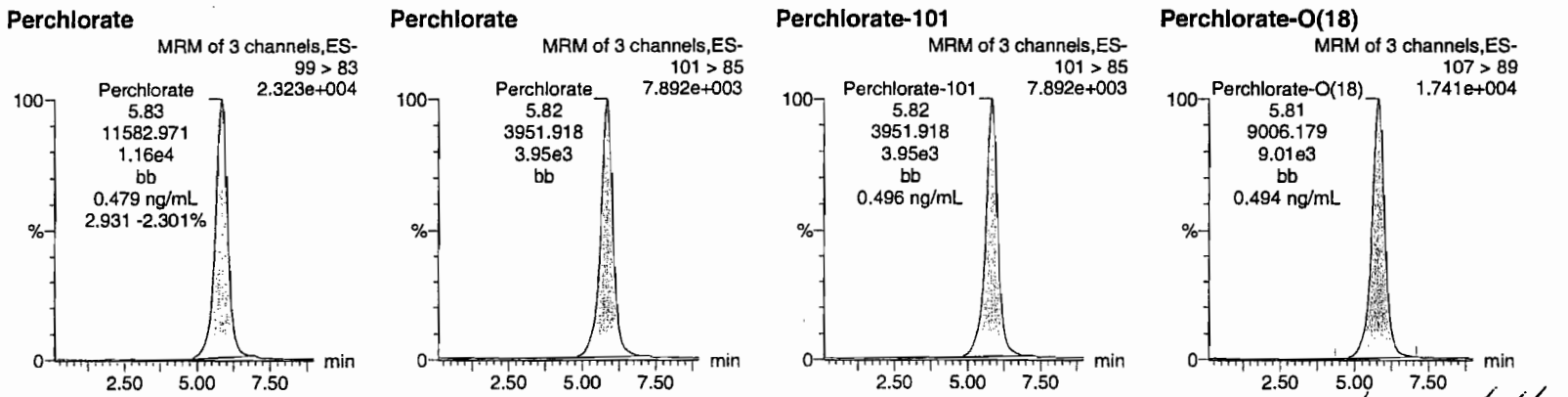
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322061a
Date: 22-Mar-2010
Time: 23:36:10
ID: WCL100318-06CCV
Vial: 1:2,A

Perry
03-23-10



Hmm 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.83	11582.971	11582.971	bb			0.4789	95.78	-4.22	1071.2...	2.93
WCL100318-06CCV	Perchlorate-101	101 > 85	5.82	3951.918	3951.918	bb			0.4963	99.27	-0.73	628.944	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.81	9006.179	9006.179	bb			0.4936	98.72	-1.28	674.962	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

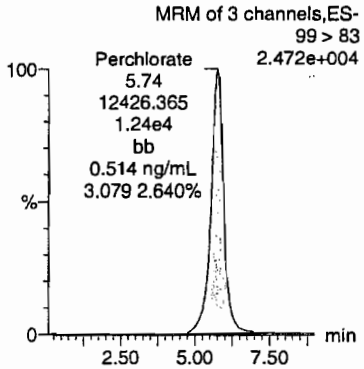
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322072a
Date: 23-Mar-2010
Time: 01:49:03
ID: WCL100318-06CCV
Vial: 1:2,A

Pwm
03-23-10

Perchlorate



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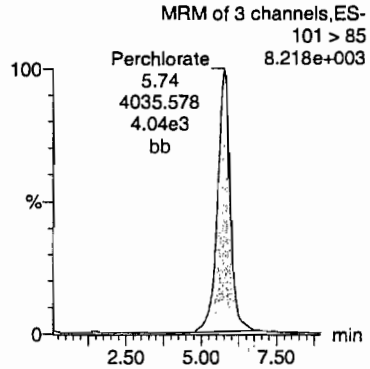

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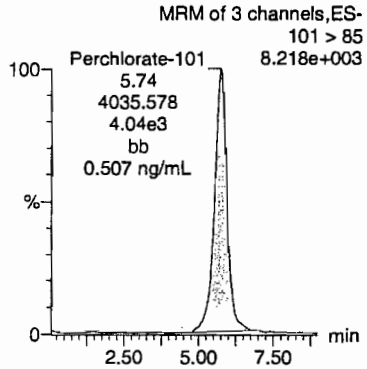
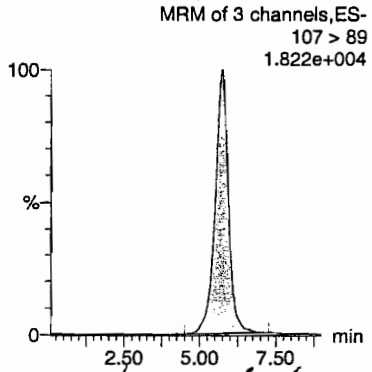


Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.74	12426.365	12426.365	bb			0.5138	102.76	2.76	1822.7...	3.08
WCL100318-06CCV	Perchlorate-101	101 > 85	5.74	4035.578	4035.578	bb			0.5068	101.37	1.37	150.307	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.72	9219.264	9219.264	bb			0.5053	101.05	1.05	80.426	

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

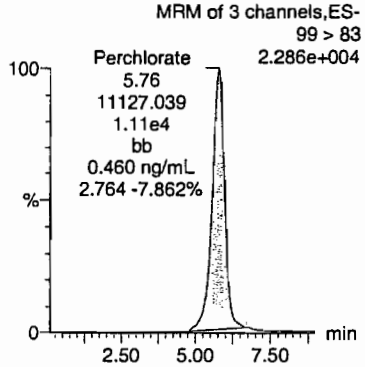
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

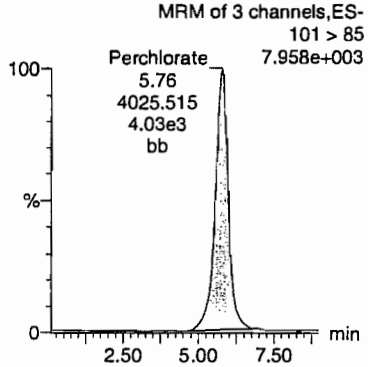
Name: per0322085a
Date: 23-Mar-2010
Time: 04:25:55
ID: WCL100318-06CCV
Vial: 1:2,A

Pass
ams
03-23-10

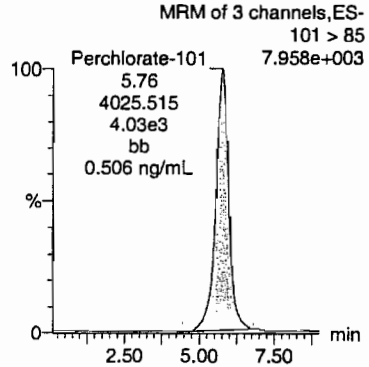
Perchlorate



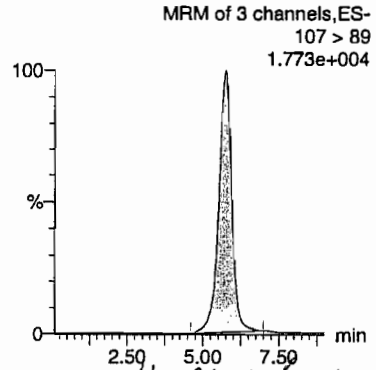
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hn 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.76	11127.039	11127.039	bb			0.4601	92.01	-7.99	2466.7...	2.76
WCL100318-06CCV	Perchlorate-101	101 > 85	5.76	4025.515	4025.515	bb			0.5056	101.12	1.12	722.058	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.73	8780.086	8780.086	bb			0.4812	96.24	-3.76	438.076	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322098a
Date: 23-Mar-2010
Time: 07:02:53
ID: WCL100318-06CCV
Vial: 1:2,A

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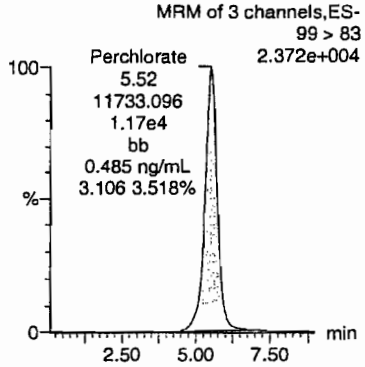
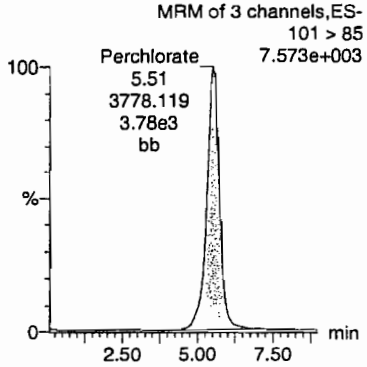
03-23-10

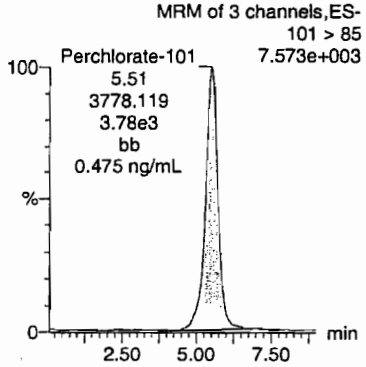
Perchlorate



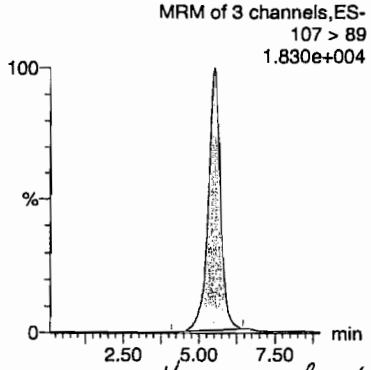
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HWW 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.52	11733.096	11733.096	bb			0.4851	97.02	-2.98	2479.9...	3.11
WCL100318-06CCV	Perchlorate-101	101 > 85	5.51	3778.119	3778.119	bb			0.4745	94.90	-5.10	154.599	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.51	8716.706	8716.706	bb			0.4777	95.54	-4.46	1333.6...	

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

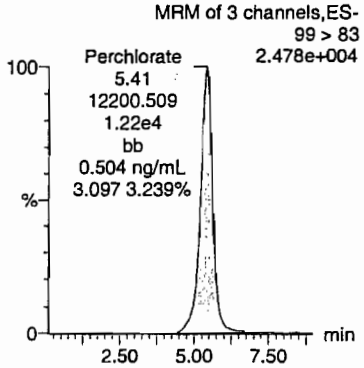
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

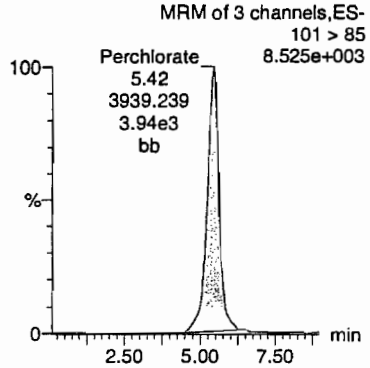
Name: per0322111a
Date: 23-Mar-2010
Time: 09:43:42
ID: WCL100318-06CCV
Vial: 1:2,A

Pwo
03-23-10

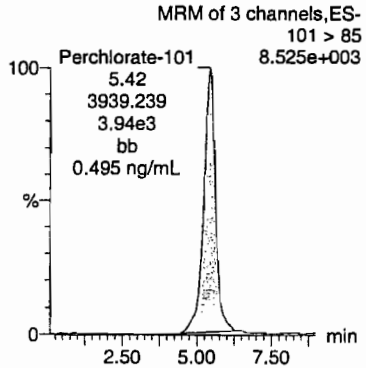
Perchlorate



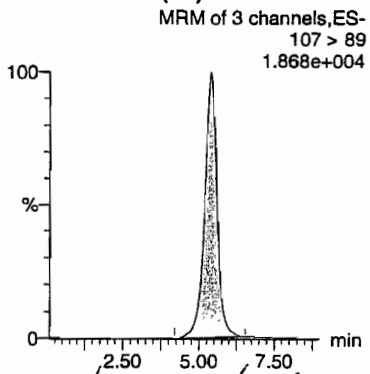
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hum 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.41	12200.509	12200.509	bb			0.5044	100.89	0.89	670.332	3.10
WCL100318-06CCV	Perchlorate-101	101 > 85	5.42	3939.239	3939.239	bb			0.4947	98.95	-1.05	577.183	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.38	9063.763	9063.763	bb			0.4967	99.35	-0.65	1064.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	96.16	22–MAR–10 13:31	per0322011a
Perchlorate Isotope Ratio		2.76		22–MAR–10 13:31	per0322011a
Perchlorate–101	.05	.05	105.81	22–MAR–10 13:31	per0322011a
Perchlorate	.05	.04	89.47	22–MAR–10 16:09	per0322024a
Perchlorate Isotope Ratio		2.73		22–MAR–10 16:09	per0322024a
Perchlorate–101	.05	.05	99.55	22–MAR–10 16:09	per0322024a
Perchlorate	.05	.05	93.64	22–MAR–10 18:46	per0322037a
Perchlorate Isotope Ratio		2.96		22–MAR–10 18:46	per0322037a
Perchlorate–101	.05	.05	96.12	22–MAR–10 18:46	per0322037a
Perchlorate	.05	.05	101.99	22–MAR–10 21:23	per0322050a
Perchlorate Isotope Ratio		3.05		22–MAR–10 21:23	per0322050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	101.59	22–MAR–10 21:23	per0322050a
Perchlorate	.05	.05	105.21	23–MAR–10 00:00	per0322063a
Perchlorate Isotope Ratio		3.84		23–MAR–10 00:00	per0322063a
Perchlorate–101	.05	.04	83.13	23–MAR–10 00:00	per0322063a
Perchlorate	.05	.05	95.72	23–MAR–10 02:13	per0322074a
Perchlorate Isotope Ratio		3.07		23–MAR–10 02:13	per0322074a
Perchlorate–101	.05	.05	94.79	23–MAR–10 02:13	per0322074a
Perchlorate	.05	.04	89.53	23–MAR–10 04:50	per0322087a
Perchlorate Isotope Ratio		2.72		23–MAR–10 04:50	per0322087a
Perchlorate–101	.05	.05	99.81	23–MAR–10 04:50	per0322087a
Perchlorate	.05	.05	93.84	23–MAR–10 07:30	per0322100a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		2.74		23–MAR–10 07:30	per0322100a
Perchlorate–101	.05	.05	104.14	23–MAR–10 07:30	per0322100a
Perchlorate	.05	.05	102.72	23–MAR–10 10:07	per0322113a
Perchlorate Isotope Ratio		3.28		23–MAR–10 10:07	per0322113a
Perchlorate–101	.05	.05	95.09	23–MAR–10 10:07	per0322113a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

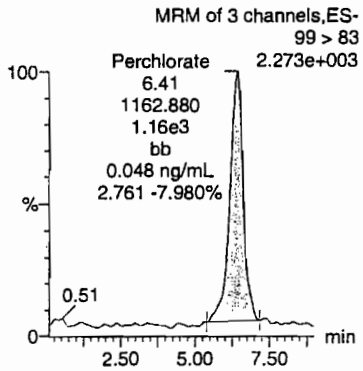
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

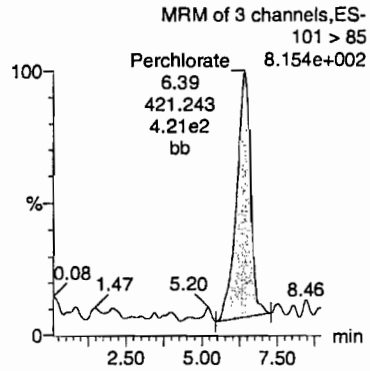
Name: per0322011a
Date: 22-Mar-2010
Time: 13:31:49
ID: WCL100318-07CRI
Vial: 1:2,B

Per
and
03-23-10

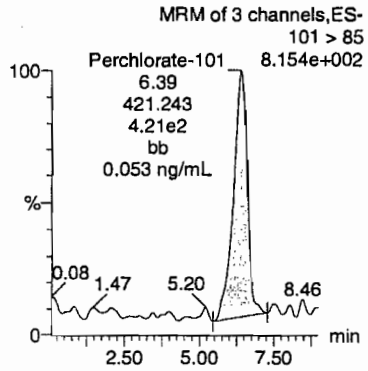
Perchlorate



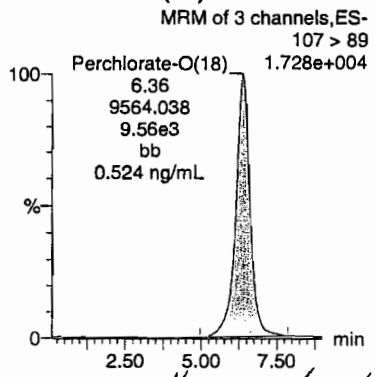
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hunc 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	6.41	1162.880	1162.880	bb			0.0481	96.16	-3.84	155.349	2.76
WCL100318-07CRI	Perchlorate-101	101 > 85	6.39	421.243	421.243	bb			0.0529	105.81	5.81	21.022	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	6.36	9564.038	9564.038	bb			0.5242	104.83	4.83	664.087	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322024a
Date: 22-Mar-2010
Time: 16:09:02
ID: WCL100318-07CRI
Vial: 1:2,B

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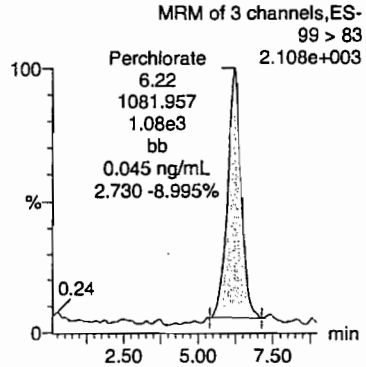
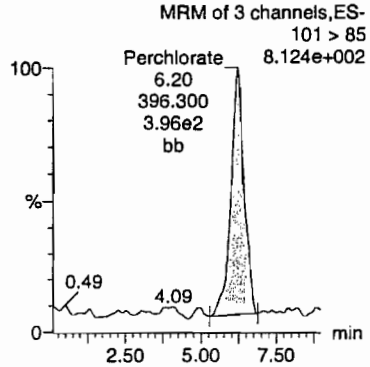
ana
03-23-10

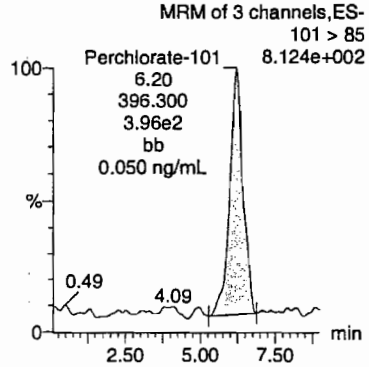
Perchlorate



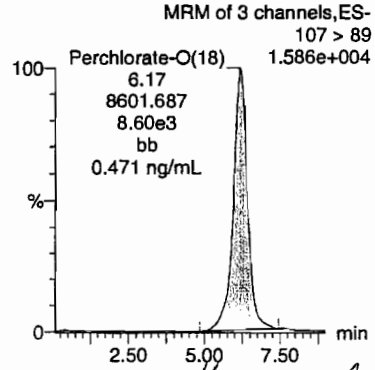
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hume 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	6.22	1081.957	1081.957	bb			0.0447	89.47	-10.53	22.200	2.73
WCL100318-07CRI	Perchlorate-101	101 > 85	6.20	396.300	396.300	bb			0.0498	99.55	-0.45	148.246	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	6.17	8601.687	8601.687	bb			0.4714	94.28	-5.72	847.250	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

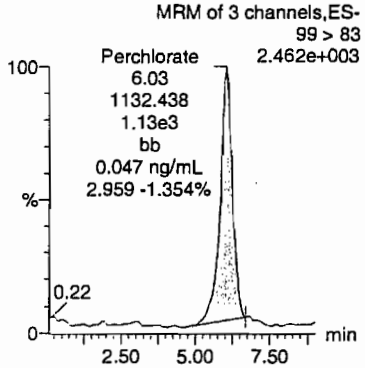
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

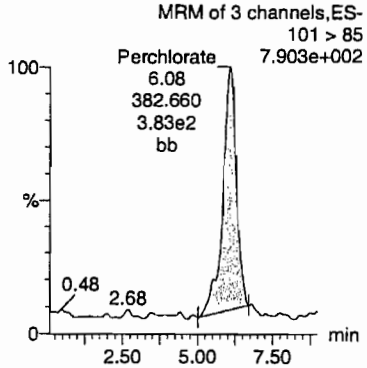
Name: per0322037a
Date: 22-Mar-2010
Time: 18:46:17
ID: WCL100318-07CRI
Vial: 1:2,B

Perso
03-23-10

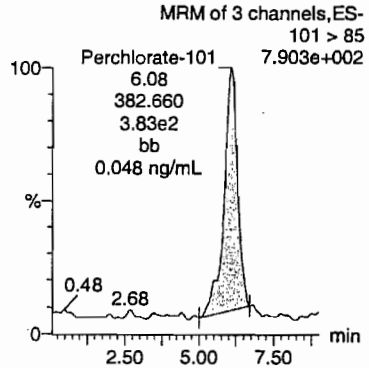
Perchlorate



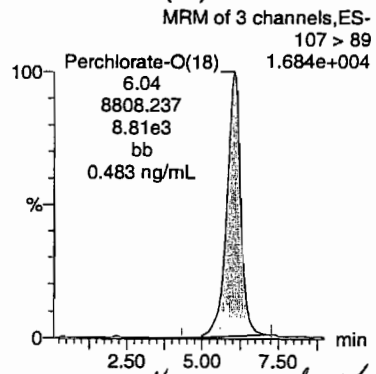
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	6.03	1132.438	1132.438	bb			0.0468	93.64	-6.36	134.965	2.96
WCL100318-07CRI	Perchlorate-101	101 > 85	6.08	382.660	382.660	bb			0.0481	96.12	-3.88	39.446	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	6.04	8808.237	8808.237	bb			0.4827	96.55	-3.45	1488.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

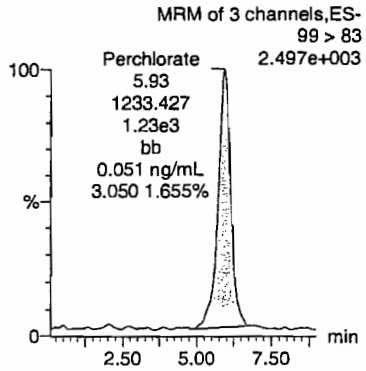
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322050a
Date: 22-Mar-2010
Time: 21:23:39
ID: WCL100318-07CRI
Vial: 1:2,B

Pass
03-23-10

Perchlorate



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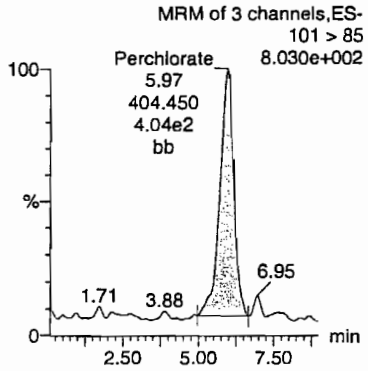
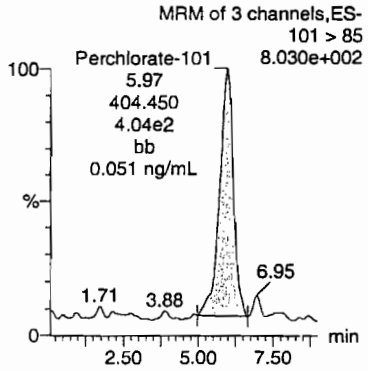
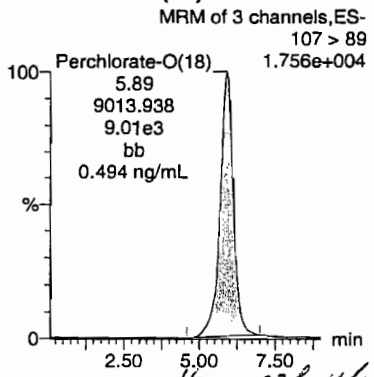


Perchlorate-101



Perchlorate-O(18)



Hume 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.93	1233.427	1233.427	bb			0.0510	101.99	1.99	43.428	3.05
WCL100318-07CRI	Perchlorate-101	101 > 85	5.97	404.450	404.450	bb			0.0508	101.59	1.59	143.836	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.89	9013.938	9013.938	bb			0.4940	98.80	-1.20	1482.8...	

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

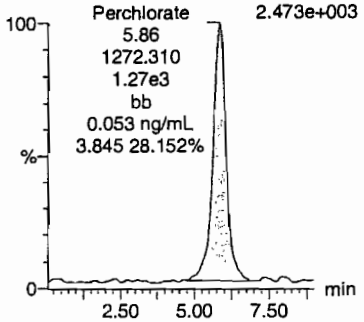
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

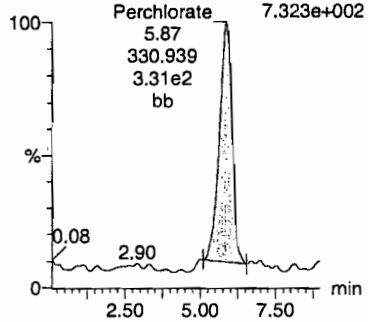
Name: per0322063a
Date: 23-Mar-2010
Time: 00:00:30
ID: WCL100318-07CRI
Vial: 1:2,B

03-23-10

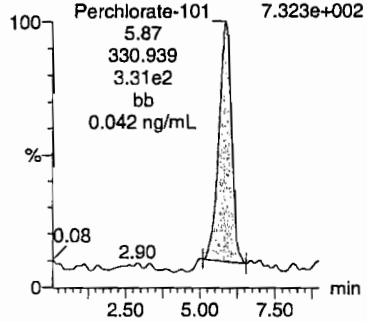
Perchlorate



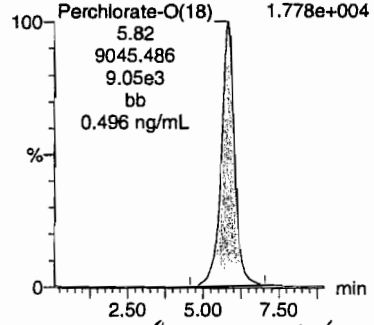
Perchlorate



Perchlorate-101



Perchlorate-O(18)



03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.86	1272.310	1272.310	bb			0.0526	105.21	5.21	262.204	3.84
WCL100318-07CRI	Perchlorate-101	101 > 85	5.87	330.939	330.939	bb			0.0416	83.13	-16.87	63.658	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.82	9045.486	9045.486	bb			0.4957	99.15	-0.85	2907.5...	

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\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322074a
Date: 23-Mar-2010
Time: 02:13:22
ID: WCL100318-07CRI
Vial: 1:2,B

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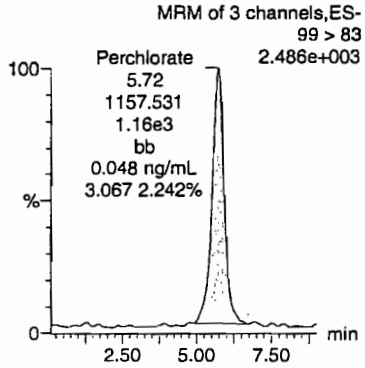
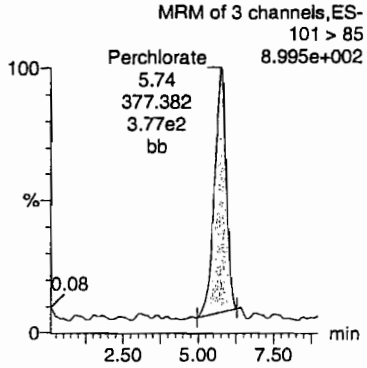
03-23-10

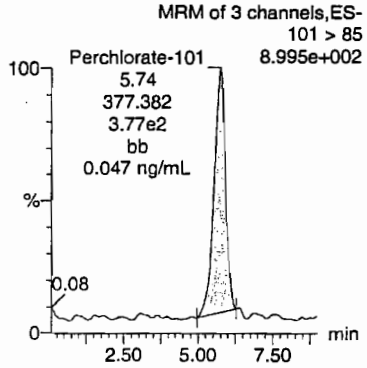
Perchlorate



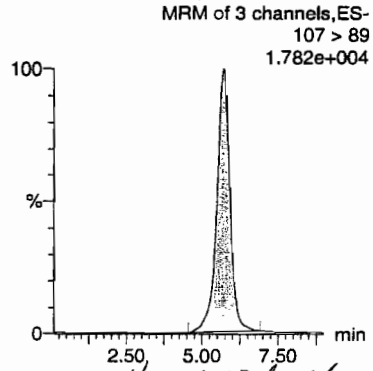
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMW 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.72	1157.531	1157.531	bb			0.0479	95.72	-4.28	120.828	3.07
WCL100318-07CRI	Perchlorate-101	101 > 85	5.74	377.382	377.382	bb			0.0474	94.79	-5.21	159.729	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.69	9021.444	9021.444	bb			0.4944	98.88	-1.12	1276.9...	

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

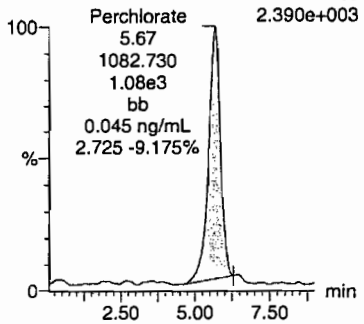
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

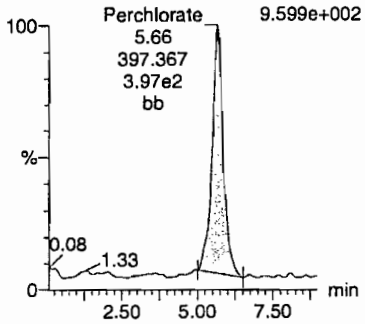
Name: per0322087a
Date: 23-Mar-2010
Time: 04:50:13
ID: WCL100318-07CRI
Vial: 1:2,B

Pass
cmw
03-23-10

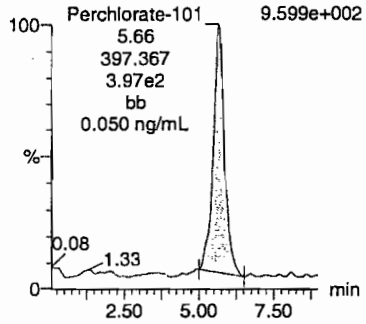
Perchlorate



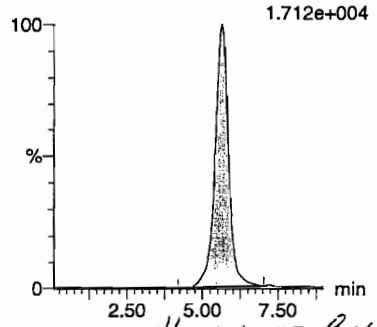
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HWM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.67	1082.730	1082.730	bb			0.0448	89.53	-10.47	225.488	2.72
WCL100318-07CRI	Perchlorate-101	101 > 85	5.66	397.367	397.367	bb			0.0499	99.81	-0.19	50.618	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.63	8884.880	8884.880	bb			0.4869	97.39	-2.61	1084.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

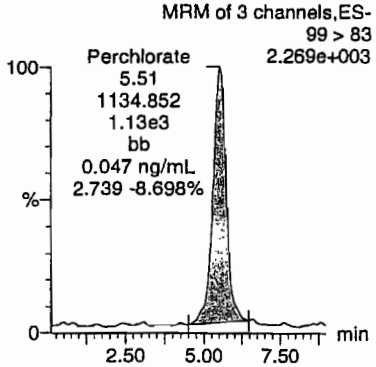
Last Altered: Thursday, March 25, 2010 8:00:40 AM Eastern Standard Time
Printed: Thursday, March 25, 2010 8:02:25 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032210a.mdb 23 Mar 2010 10:24:18
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032210a.cdb 23 Mar 2010 10:24:34

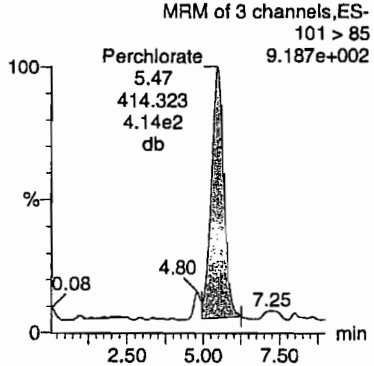
Name: per0322100a
Date: 23-Mar-2010
Time: 07:30:48
ID: WCL100318-07CRI
Vial: 1:2,B

CWW
03-25-10

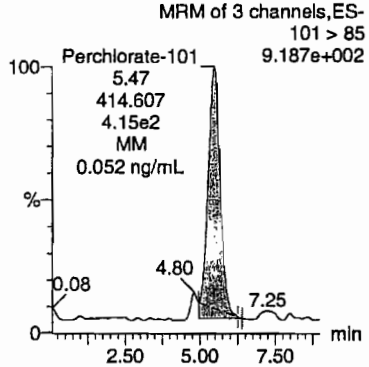
Perchlorate



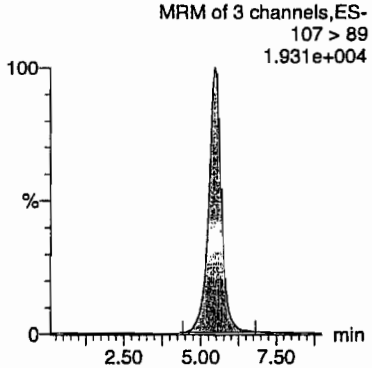
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.51	1134.852	1134.852	bb			0.0469	93.84	-6.16	33.301	2.74
WCL100318-07CRI	Perchlorate-101	101 > 85	5.47	414.607	414.607	MM	25-Mar-10	08:00:40	0.0521	104.14	4.14	267.625	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.47	9333.718	9333.718	bb			0.5115	102.31	2.31	645.193	

MMT
3/25/10

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

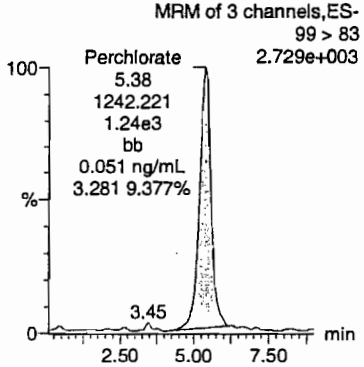
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

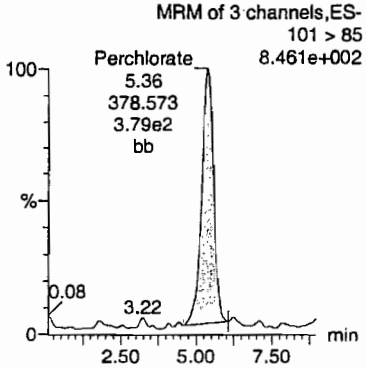
Name: per0322113a
Date: 23-Mar-2010
Time: 10:07:47
ID: WCL100318-07CRI
Vial: 1:2,B

Pam
03-23-10

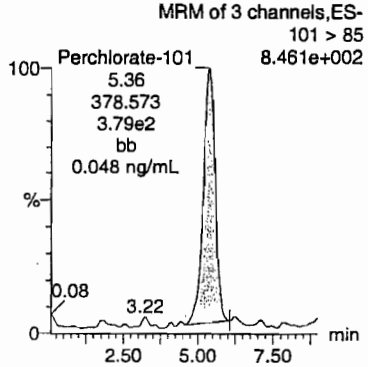
Perchlorate



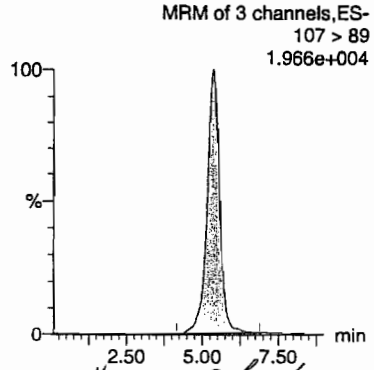
Perchlorate



Perchlorate-101



Perchlorate-O(18)



HMM 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.38	1242.221	1242.221	bb			0.0514	102.72	2.72	115.935	3.28
WCL100318-07CRI	Perchlorate-101	101 > 85	5.36	378.573	378.573	bb			0.0475	95.09	-4.91	26.582	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.36	9522.026	9522.026	bb			0.5218	104.37	4.37	2703.2...	

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: SOIL

Extraction Batch ID: 963897

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 17-MAR-10

GEL Job No (SDG): 10-2198

GEL Sample ID: 1202067810

Date Filtered: 17-MAR-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	23-MAR-10 02:25	per0322075a
	Perchlorate Isotope Ratio						1	23-MAR-10 02:25	per0322075a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	23-MAR-10 02:25	per0322075a
	Perchlorate-O(18)			4.92	ug/kg		1	23-MAR-10 02:25	per0322075a

^ 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\per032210a.qld

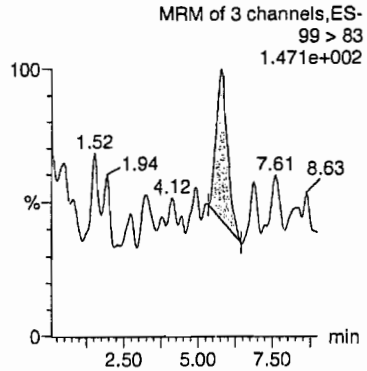
Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322075a
Date: 23-Mar-2010
Time: 02:25:26
ID: 1202067810
Vial: 3:1,A

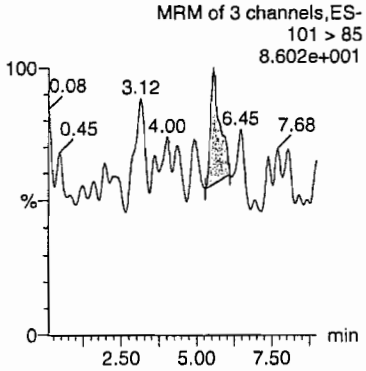
|LANL|963894|SOLID|MB|1|

0323-10

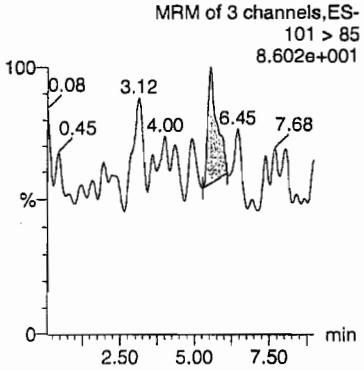
Perchlorate



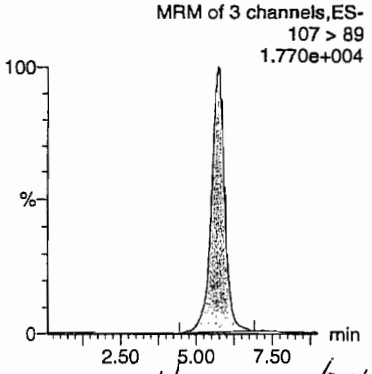
Perchlorate



Perchlorate-101



Perchlorate-O(18)



03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067810	Perchlorate	99 > 83	5.77	36.794	36.794	bb			0.0015			15.039	2.66
1202067810	Perchlorate-101	101 > 85	5.53	13.844	13.844	bb			0.0017			18.435	
1202067810	Perchlorate-O(18)	107 > 89	5.72	8975.383	8975.383	bb			0.4919	98.38	-1.62	747.834	

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: SOIL

Extraction Batch ID: 963897

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 17-MAR-10

GEL Job No (SDG): 10-2198

GEL Sample ID: 1202067811

Date Filtered: 17-MAR-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	1.98	ug/kg	J	1	23-MAR-10 02:37	per0322076a
	Perchlorate Isotope Ratio			3.27			1	23-MAR-10 02:37	per0322076a
14797-73-0	Perchlorate-101	.5	2	1.84	ug/kg	J	1	23-MAR-10 02:37	per0322076a
	Perchlorate-O(18)			4.93	ug/kg		1	23-MAR-10 02:37	per0322076a

^ 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\per032210a.qld

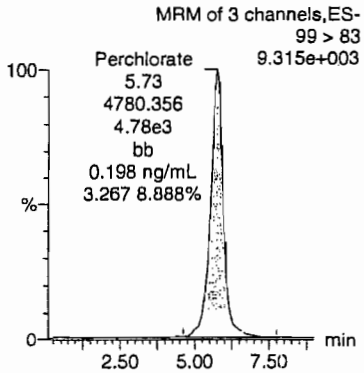
Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322076a
Date: 23-Mar-2010
Time: 02:37:41
ID: 1202067811
Vial: 3:1,B

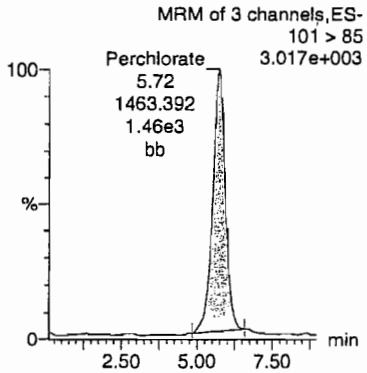
|LANL|963899|5020|LCS|1|

CWW
03-23-10

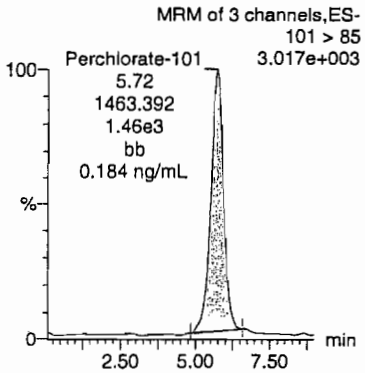
Perchlorate



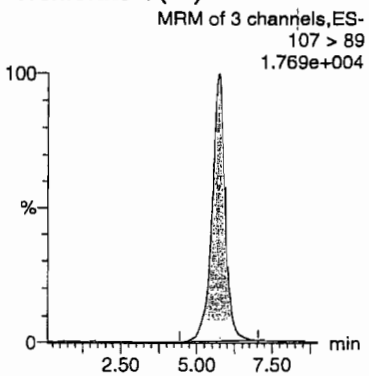
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067811	Perchlorate	99 > 83	5.73	4780.356	4780.356	bb			0.1976	98.82	-1.18	82.782	3.27
1202067811	Perchlorate-101	101 > 85	5.72	1463.392	1463.392	bb			0.1838	91.90	-8.10	105.901	
1202067811	Perchlorate-O(18)	107 > 89	5.71	8991.550	8991.550	bb			0.4928	98.56	-1.44	1023.0...	

$$\frac{4780.356}{24186.2} = 0.1976$$

AWW
03/24/10

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MISCELLANEOUS DATA

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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.

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: 963897 **Verified by:**
Analyst: Jareth Shirley
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)
1202067810 MB	17-MAR-2010 15:06:00	2	20	10
1202067811 LCS	17-MAR-2010 15:06:00	2	20	10
248374001	17-MAR-2010 15:06:00	2	20	10
248374002	17-MAR-2010 15:06:00	2	20	10
1202067812 MS (248374002)	17-MAR-2010 15:06:00	2	20	10
1202067813 MSD (248374002)	17-MAR-2010 15:06:00	2	20	10
248374003	17-MAR-2010 15:06:00	2	20	10
248374004	17-MAR-2010 15:06:00	2	20	10
248374005	17-MAR-2010 15:06:00	2	20	10
248374006	17-MAR-2010 15:06:00	2	20	10
248374007	17-MAR-2010 15:06:00	2	20	10
248374008	17-MAR-2010 15:06:00	2	20	10
248374009	17-MAR-2010 15:06:00	2	20	10
248374010	17-MAR-2010 15:06:00	2	20	10
248374011	17-MAR-2010 15:06:00	2	20	10
248374012	17-MAR-2010 15:06:00	2	20	10
248374013	17-MAR-2010 15:06:00	2	20	10
248422001	17-MAR-2010 15:06:00	2	20	10
248422002	17-MAR-2010 15:06:00	2	20	10
248515001	17-MAR-2010 15:06:00	2	20	10
248515002	17-MAR-2010 15:06:00	2	20	10
248515003	17-MAR-2010 15:06:00	2	20	10
248517001	17-MAR-2010 15:06:00	2	20	10
1202067814 ICS	17-MAR-2010 15:06:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202067814	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
LCS	1202067811	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
MS	1202067812	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
MSD	1202067813	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL

Comments:

Desalting cartridges used: 100223-1-Ba & 100216-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/22/10
Extr. Injection Volume: 20uL
Sequence Number: per032210a
Initial Calibration Date: 03/22/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: Hnne
Date: 03/24/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100318-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0322001a	IPB001	CWW	3/22/2010 11:30			1		USE	B
per0322002a	IPB001	CWW	3/22/2010 11:42			1		USE	B
per0322003a	WCLICAL-01	CWW	3/22/2010 11:55			1		USE	I
per0322004a	WCLICAL-02	CWW	3/22/2010 12:07			1		USE	I
per0322005a	WCLICAL-03	CWW	3/22/2010 12:19			1		USE	I
per0322006a	WCLICAL-04	CWW	3/22/2010 12:31			1		USE	I
per0322007a	WCLICAL-05	CWW	3/22/2010 12:43			1		USE	I
per0322008a	IPB002	CWW	3/22/2010 12:55			1		USE	B
per0322009a	WCLICV	CWW	3/22/2010 13:07			1		USE	C
per0322010a	IPB003	CWW	3/22/2010 13:19			1		USE	B
per0322011a	WCLCRI	CWW	3/22/2010 13:31			1		USE	C
per0322012a	1202056698	CWW	3/22/2010 13:44	959034	VARIOUS	1	LANL	USE	S
per0322013a	1202056699	CWW	3/22/2010 13:56	959034	VARIOUS	1	LANL	USE	S
per0322014a	1202056702	CWW	3/22/2010 14:08	959034	VARIOUS	1	LANL	DUSE-RA	S
per0322015a	248241001	CWW	3/22/2010 14:20	959034	10-2135	1	LANL	USE	S
per0322016a	248241002	CWW	3/22/2010 14:32	959034	10-2135	1	LANL	USE	S
per0322017a	1202056700	CWW	3/22/2010 14:44	959034	10-2135	1	LANL	USE	S
per0322018a	1202056701	CWW	3/22/2010 14:56	959034	10-2135	1	LANL	USE	S
per0322019a	248241003	CWW	3/22/2010 15:08	959034	10-2135	1	LANL	USE	S
per0322020a	248241004	CWW	3/22/2010 15:20	959034	10-2135	1	LANL	USE	S
per0322021a	248241005	CWW	3/22/2010 15:32	959034	10-2135	1	LANL	USE	S
per0322022a	WCLCCV	CWW	3/22/2010 15:44			1		USE	C
per0322023a	IPB004	CWW	3/22/2010 15:56			1		USE	B
per0322024a	WCLCRI	CWW	3/22/2010 16:09			1		USE	C
per0322025a	248241006	CWW	3/22/2010 16:21	959034	10-2135	1	LANL	USE	S
per0322026a	248241007	CWW	3/22/2010 16:33	959034	10-2135	1	LANL	USE	S
per0322027a	248241008	CWW	3/22/2010 16:45	959034	10-2135	1	LANL	USE	S
per0322028a	248241009	CWW	3/22/2010 16:57	959034	10-2135	1	LANL	USE	S
per0322029a	248241010	CWW	3/22/2010 17:09	959034	10-2135	1	LANL	USE	S

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per0322030a	248256001	CWW	3/22/2010 17:21	959034	10-2146	1	LANL	USE	S
per0322031a	248256002	CWW	3/22/2010 17:33	959034	10-2146	1	LANL	USE	S
per0322032a	248256003	CWW	3/22/2010 17:45	959034	10-2146	1	LANL	USE	S
per0322033a	248256004	CWW	3/22/2010 17:57	959034	10-2146	1	LANL	USE	S
per0322034a	248256005	CWW	3/22/2010 18:09	959034	10-2146	1	LANL	USE	S
per0322035a	WCLCCV	CWW	3/22/2010 18:21			1		USE	C
per0322036a	IPB005	CWW	3/22/2010 18:34			1		USE	B
per0322037a	WCLCRI	CWW	3/22/2010 18:46			1		USE	C
per0322038a	248256006	CWW	3/22/2010 18:58	959034	10-2146	1	LANL	USE	S
per0322039a	248256007	CWW	3/22/2010 19:10	959034	10-2146	1	LANL	USE	S
per0322040a	IPB006	CWW	3/22/2010 19:22			1		USE	B
per0322041a	1202063742	CWW	3/22/2010 19:34	962127	10-2151	1	LANL	USE	S
per0322042a	1202063743	CWW	3/22/2010 19:47	962127	10-2151	1	LANL	USE	S
per0322043a	1202063746	CWW	3/22/2010 19:59	962127	10-2151	1	LANL	USE	S
per0322044a	248371001	CWW	3/22/2010 20:11	962127	10-2151	1	LANL	USE	S
per0322045a	1202063744	CWW	3/22/2010 20:23	962127	10-2151	1	LANL	USE	S
per0322046a	1202063745	CWW	3/22/2010 20:35	962127	10-2151	1	LANL	USE	S
per0322047a	248371002	CWW	3/22/2010 20:47	962127	10-2151	1	LANL	DUSE-DL	S
per0322048a	WCLCCV	CWW	3/22/2010 20:59			1		USE	C
per0322049a	IPB007	CWW	3/22/2010 21:11			1		USE	B
per0322050a	WCLCRI	CWW	3/22/2010 21:23			1		USE	C
per0322051a	248371003	CWW	3/22/2010 21:35	962127	10-2151	1	LANL	USE	S
per0322052a	248371004	CWW	3/22/2010 21:47	962127	10-2151	1	LANL	USE	S
per0322053a	248371005	CWW	3/22/2010 21:59	962127	10-2151	1	LANL	DUSE-DL	S
per0322054a	248371006	CWW	3/22/2010 22:11	962127	10-2151	1	LANL	DUSE-RA	S
per0322055a	248371007	CWW	3/22/2010 22:23	962127	10-2151	1	LANL	USE	S
per0322056a	248371008	CWW	3/22/2010 22:36	962127	10-2151	1	LANL	USE	S
per0322057a	248371009	CWW	3/22/2010 22:48	962127	10-2151	1	LANL	USE	S
per0322058a	248371010	CWW	3/22/2010 23:00	962127	10-2151	1	LANL	USE	S
per0322059a	248371011	CWW	3/22/2010 23:12	962127	10-2151	1	LANL	USE	S
per0322060a	248371012	CWW	3/22/2010 23:24	962127	10-2151	1	LANL	USE	S
per0322061a	WCLCCV	CWW	3/22/2010 23:36			1		USE	C
per0322062a	IPB008	CWW	3/22/2010 23:48			1		USE	B
per0322063a	WCLCRI	CWW	3/23/2010 0:00			1		USE	C
per0322064a	248371013	CWW	3/23/2010 0:12	962127	10-2151	1	LANL	USE	S
per0322065a	248371014	CWW	3/23/2010 0:24	962127	10-2151	1	LANL	USE	S
per0322066a	248371015	CWW	3/23/2010 0:36	962127	10-2151	1	LANL	USE	S

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per0322067a	248371016	CWW	3/23/2010 0:48	962127	10-2151	1	LANL	USE	S
per0322068a	248371017	CWW	3/23/2010 1:00	962127	10-2151	1	LANL	USE	S
per0322069a	248371018	CWW	3/23/2010 1:12	962127	10-2151	1	LANL	USE	S
per0322070a	248371019	CWW	3/23/2010 1:24	962127	10-2151	1	LANL	USE	S
per0322071a	248371020	CWW	3/23/2010 1:36	962127	10-2151	1	LANL	USE	S
per0322072a	WCLCCV	CWW	3/23/2010 1:49			1		USE	C
per0322073a	IPB009	CWW	3/23/2010 2:01			1		USE	B
per0322074a	WCLCRI	CWW	3/23/2010 2:13			1		USE	C
per0322075a	1202067810	CWW	3/23/2010 2:25	963899	VARIOUS	1	LANL	USE	S
per0322076a	1202067811	CWW	3/23/2010 2:37	963899	VARIOUS	1	LANL	USE	S
per0322077a	1202067814	CWW	3/23/2010 2:49	963899	VARIOUS	1	LANL	USE	S
per0322078a	248374001	CWW	3/23/2010 3:01	963899	10-2155	1	LANL	USE	S
per0322079a	248374002	CWW	3/23/2010 3:13	963899	10-2155	1	LANL	USE	S
per0322080a	1202067812	CWW	3/23/2010 3:25	963899	10-2155	1	LANL	USE	S
per0322081a	1202067813	CWW	3/23/2010 3:37	963899	10-2155	1	LANL	USE	S
per0322082a	248374003	CWW	3/23/2010 3:49	963899	10-2155	1	LANL	USE	S
per0322083a	248374004	CWW	3/23/2010 4:01	963899	10-2155	1	LANL	USE	S
per0322084a	248374005	CWW	3/23/2010 4:13	963899	10-2155	1	LANL	USE	S
per0322085a	WCLCCV	CWW	3/23/2010 4:25			1		USE	C
per0322086a	IPB010	CWW	3/23/2010 4:38			1		USE	B
per0322087a	WCLCRI	CWW	3/23/2010 4:50			1		USE	C
per0322088a	248374006	CWW	3/23/2010 5:02	963899	10-2155	1	LANL	USE	S
per0322089a	248374007	CWW	3/23/2010 5:14	963899	10-2155	1	LANL	USE	S
per0322090a	248374008	CWW	3/23/2010 5:26	963899	10-2155	1	LANL	USE	S
per0322091a	248374009	CWW	3/23/2010 5:38	963899	10-2155	1	LANL	USE	S
per0322092a	248374010	CWW	3/23/2010 5:50	963899	10-2155	1	LANL	USE	S
per0322093a	248374011	CWW	3/23/2010 6:02	963899	10-2155	1	LANL	USE	S
per0322094a	248374012	CWW	3/23/2010 6:14	963899	10-2155	1	LANL	USE	S
per0322095a	248374013	CWW	3/23/2010 6:26	963899	10-2155	1	LANL	USE	S
per0322096a	248422001	CWW	3/23/2010 6:38	963899	10-2166	1	LANL	USE	S
per0322097a	248422002	CWW	3/23/2010 6:50	963899	10-2166	1	LANL	USE	S
per0322098a	WCLCCV	CWW	3/23/2010 7:02			1		USE	C
per0322099a	IPB011	CWW	3/23/2010 7:18			1		USE	B
per0322100a	WCLCRI	CWW	3/23/2010 7:30			1		USE	C
per0322101a	248515001	CWW	3/23/2010 7:42	963899	10-2197	1	LANL	USE	S
per0322102a	248515002	CWW	3/23/2010 7:55	963899	10-2197	1	LANL	USE	S
per0322103a	248515003	CWW	3/23/2010 8:07	963899	10-2197	1	LANL	USE	S

per0322104a	248517001	CWW	3/23/2010 8:19	963899	10-2198	1	LANL	USE	S
per0322105a	IPB012	CWW	3/23/2010 8:31			1		USE	B
per0322106a	1202056702	CWW	3/23/2010 8:43	959034	VARIOUS	1	LANL	USE	S
per0322107a	IPB013	CWW	3/23/2010 8:55			1		USE	B
per0322108a	248371002	CWW	3/23/2010 9:07	962127	10-2151	4	LANL	USE	S
per0322109a	248371005	CWW	3/23/2010 9:19	962127	10-2151	4	LANL	USE	S
per0322110a	248371006	CWW	3/23/2010 9:31	962127	10-2151	1	LANL	USE	S
per0322111a	WCLCCV	CWW	3/23/2010 9:43			1		USE	C
per0322112a	IPB014	CWW	3/23/2010 9:55			1		USE	B
per0322113a	WCLCRI	CWW	3/23/2010 10:07			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\per032210a.qld

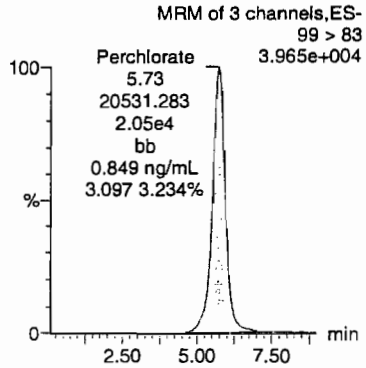
Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322080a
Date: 23-Mar-2010
Time: 03:25:46
ID: 1202067812
Vial: 3:1,F

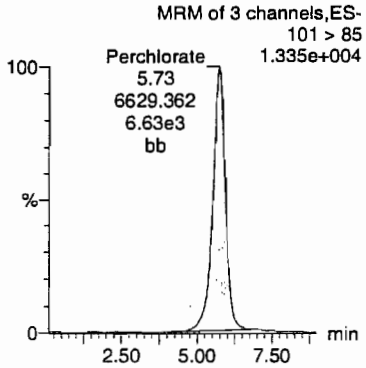
|LANL|96399|50120|MS|11|

cwo 03-23-10

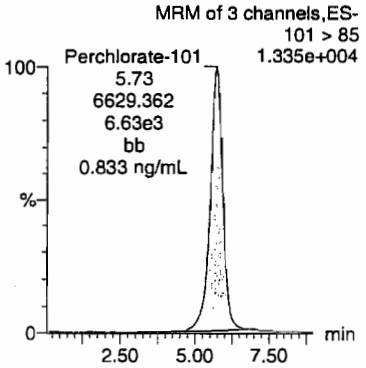
Perchlorate



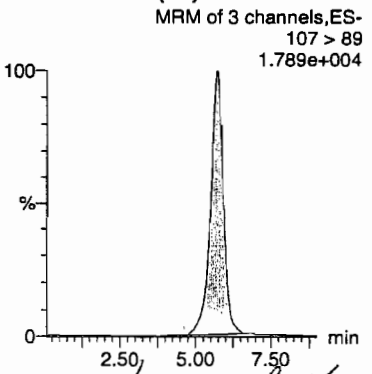
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hum 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067812	Perchlorate	99 > 83	5.73	20531.283	20531.283	bb			0.8489	424.44	324.44	969.515	3.10
1202067812	Perchlorate-101	101 > 85	5.73	6629.362	6629.362	bb			0.8326	416.30	316.30	897.889	
1202067812	Perchlorate-O(18)	107 > 89	5.72	8903.322	8903.322	bb			0.4879	97.59	-2.41	1037.3...	

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\per032210a.qld

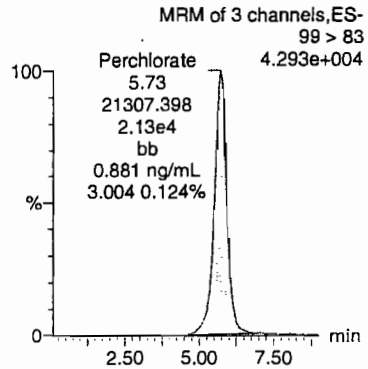
Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322081a
Date: 23-Mar-2010
Time: 03:37:47
ID: 1202067813
Vial: 3:2,A

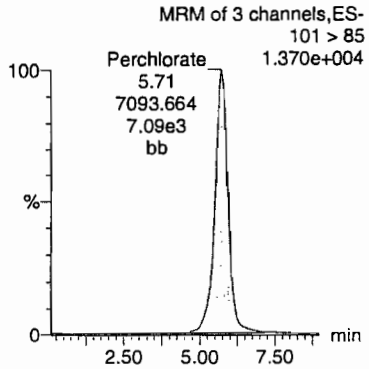
|LANL|963899|50120|MSD|1|

ans
0323-10

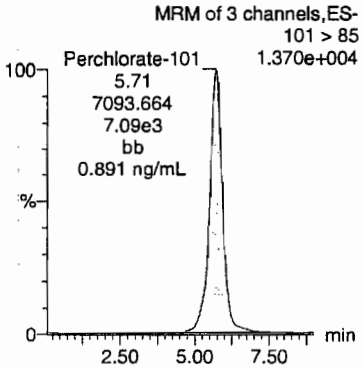
Perchlorate



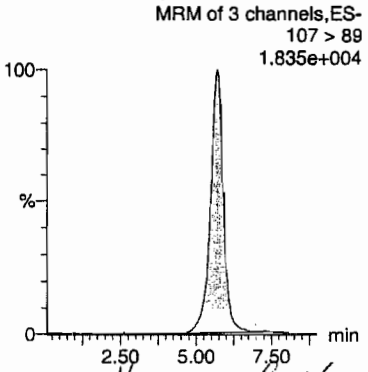
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Hmc 03/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202067813	Perchlorate	99 > 83	5.73	21307.398	21307.398	bb			0.8810	440.49	340.49	1914.2...	3.00
1202067813	Perchlorate-101	101 > 85	5.71	7093.664	7093.664	bb			0.8909	445.46	345.46	419.541	
1202067813	Perchlorate-O(18)	107 > 89	5.69	9213.674	9213.674	bb			0.5049	100.99	0.99	168.621	

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 6850 Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
963899	See Below		

Potentially affected work order(s)(SDG): 248374(10-2155),248422(10-2166),248515(10-2197),248517(10-2198)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Low recovery for Perchlorate-101 was observed in 1202067812 (MS). The recovery was 71% and the acceptance range is 75-125%.	1. The low recovery may be the result of the background concentration present in the parent sample, 248374002, and the non-homogeneity of the sample matrix.

Originator's Name:

Charles Wilson 23-MAR-10

Data Validator/Group Leader:

Herbert Maier 24-MAR-10

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2198-1

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:	962136
Prep Batch Number:	962135

Sample Analysis

Sample ID	Client ID
248518001	RE36-10-8294
1202063761	Interference Check Sample (ICS)
1202063757	Method Blank (MB)
1202063758	Laboratory Control Sample (LCS)
1202063759	248407001(RE11-10-1721) Matrix Spike (MS)
1202063760	248407001(RE11-10-1721) 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 recovered Perchlorate at 164% and Perchlorate-101 at 166%. The acceptance range is 85-115%. The high recovery may be the result of a spiking error at the preparation step, but note that the recoveries for the ICS and matrix spikes were all acceptable for the batch. Since the detections observed in the associated samples were less than the MDL, samples do not need to be re-extracted. The data is unaffected and is reported. Please see data exception report 805539.

QC Sample Designation
Client sample 248407001 (RE11-10-1721) from SDG 10-2188 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.

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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 report 805539 was generated for this SDG.

The LCS recovered Perchlorate at 164% and Perchlorate-101 at 166%. The acceptance range is 85-115%. The high recovery may be the result of a spiking error at the preparation step, but note that the recoveries for the ICS and matrix spikes were all acceptable for the batch. Since the detections observed in the associated samples were less than the MDL, samples do not need to be re-extracted. The data is unaffected and is reported.

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 Maier **Date:** 03/26/10

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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: 962135

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE36-10-8294

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2198-1

GEL Sample ID: 248518001

Date Filtered: 08-MAR-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	17-MAR-10 05:42	per0316103a
	Perchlorate Isotope Ratio						1	17-MAR-10 05:42	per0316103a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-MAR-10 05:42	per0316103a
	Perchlorate-O(18)			0.459	ug/L		1	17-MAR-10 05:42	per0316103a

^ 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): 10–2198–1

Extract Batch Code: 962135

Date Filtered: 08–MAR–10

Matrix: WATER

Sample ID: 1202063758

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.329	ug/L	164	*	85 – 115
Perchlorate Isotope Ratio		2.98				–
Perchlorate–101	0.200	.331	ug/L	166	*	85 – 115
Perchlorate–O(18)		.465	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): 10–2198–1

Extract Batch Code: 962135

Date Filtered: 08–MAR–10

Matrix: WATER

Sample ID: 1202063761

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.212	ug/L	106		70 – 130
Perchlorate Isotope Ratio		3.13				
Perchlorate–101	0.200	.203	ug/L	102		70 – 130
Perchlorate–O(18)		.505	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\per031610a.qld

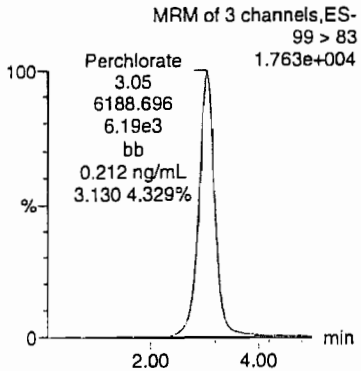
Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316090a
Date: 17-Mar-2010
Time: 03:57:10
ID: 1202063761
Vial: 2:5,C

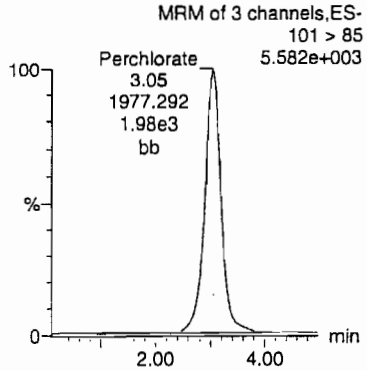
|LANL|962136|LZQ|TCS|1|

WW 03-17-10

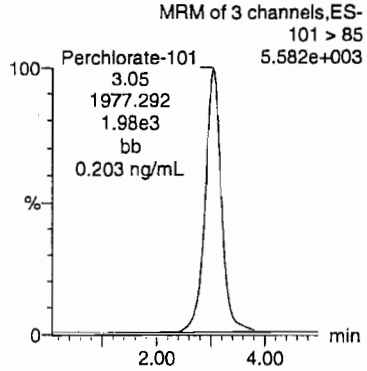
Perchlorate



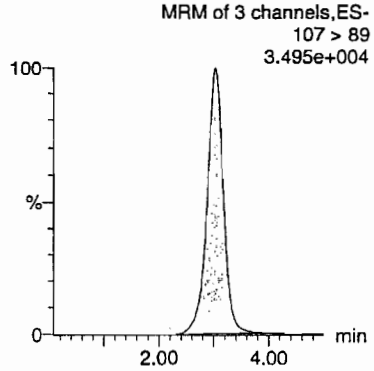
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202063761	Perchlorate	99 > 83	3.05	6188.696	6188.696	bb			0.2119	105.93	5.93	34.417	3.13
1202063761	Perchlorate-101	101 > 85	3.05	1977.292	1977.292	bb			0.2034	101.68	1.68	395.237	
1202063761	Perchlorate-O(18)	107 > 89	3.04	12059.898	12059.898	bb			0.5047	100.94	0.94	4365.4...	

MM 3/18/10

$\frac{6188.696}{1977.292} = 3.1299$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2198–1

Extract Batch Code: 962135

Date Extracted: 08–MAR–10

GEL MS/PS ID: 1202063759

Client ID: RE11–10–1721

GEL MSD/PSD ID: 1202063760

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	0.00108	ug/L	0.198	98.5		.197	97.9		.596		30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.12			2.86			0			–
Perchlorate–101	0.200	0.00	ug/L	0.190	95.2		.207	103		8.19		30	75 – 125
Perchlorate–O(18)	0	0.454	ug/L	0.462			.455			1.64			–

^ 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): 10-2198-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	16-MAR-10	per0316001a	IPB001
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316001a	IPB001
Perchlorate	0.00	0	NA	16-MAR-10	per0316002a	IPB001
Perchlorate-101	0.00	0	NA	16-MAR-10	per0316002a	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\per031610a.qld

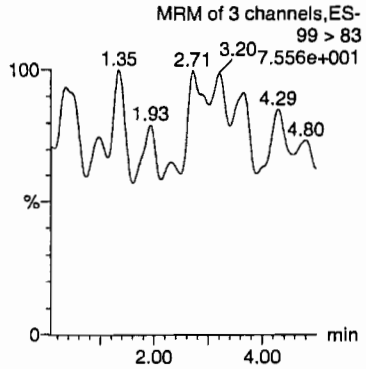
Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031610a.mdb 17 Mar 2010 09:00:50
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031610a.cdb 17 Mar 2010 09:01:07

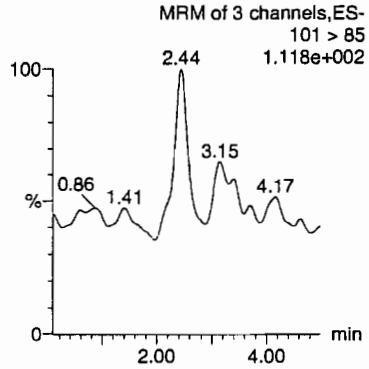
Name: per0316001a
Date: 16-Mar-2010
Time: 16:00:32
ID: IPB001
Vial: 1:1,A

CW 03-17-10

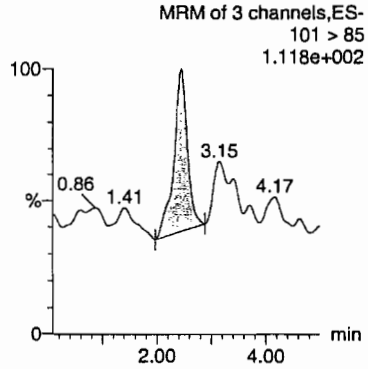
Perchlorate



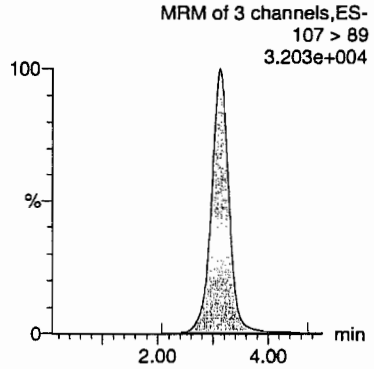
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85	2.44	20.167	20.167	bb			0.0021			25.880	
IPB001	Perchlorate-O(18)	107 > 89	3.14	11814.019	11814.019	bb			0.4944	98.89	-1.11	1410.2...	

MMT 3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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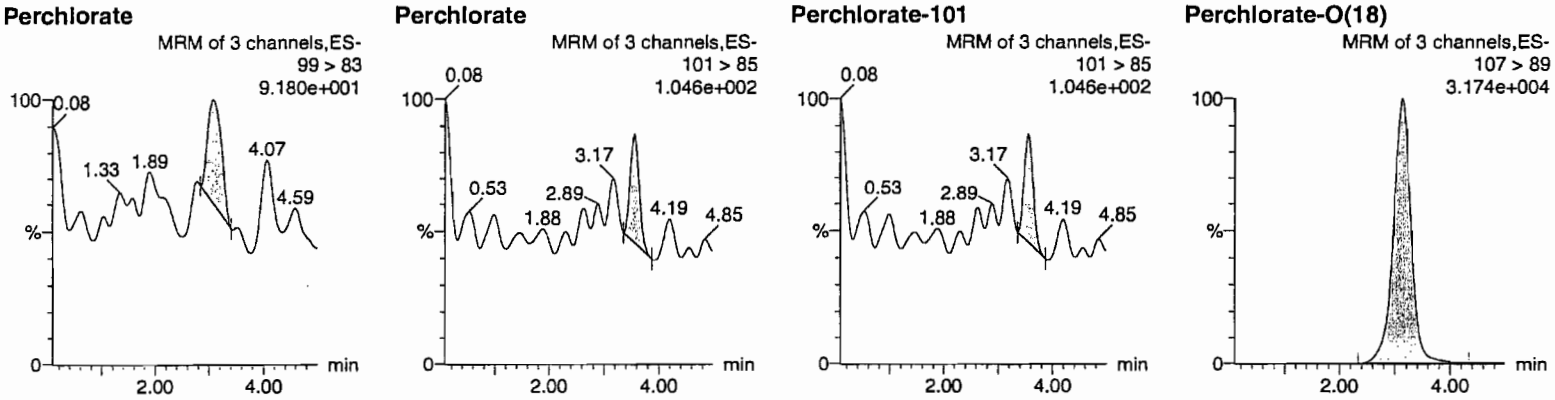
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316002a
Date: 16-Mar-2010
Time: 16:08:34
ID: IPB001
Vial: 1:1,A

CWJ 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.07	11.152	11.152	bb			0.0004			4.095	1.32
IPB001	Perchlorate-101	101 > 85	3.56	8.474	8.474	bb			0.0009			17.995	
IPB001	Perchlorate-O(18)	107 > 89	3.14	11719.820	11719.820	bb			0.4905	98.10	-1.90	1197.1...	

QCA4 <0.0500

MATT 3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	16–MAR–10	per0316008a	IPB002
Perchlorate–101	0.00	0	NA	16–MAR–10	per0316008a	IPB002
Perchlorate	0.00	0	NA	16–MAR–10	per0316010a	IPB003
Perchlorate–101	0.00	0	NA	16–MAR–10	per0316010a	IPB003
Perchlorate	0.00	0	NA	16–MAR–10	per0316015a	IPB004
Perchlorate–101	0.00	0	NA	16–MAR–10	per0316015a	IPB004
Perchlorate	0.00	0	NA	16–MAR–10	per0316023a	IPB005
Perchlorate–101	0.00	0	NA	16–MAR–10	per0316023a	IPB005
Perchlorate	0.00	0	NA	16–MAR–10	per0316027a	IPB006
Perchlorate–101	0.00	0	NA	16–MAR–10	per0316027a	IPB006
Perchlorate	0.00	0	NA	16–MAR–10	per0316036a	IPB007
Perchlorate–101	0.00	0	NA	16–MAR–10	per0316036a	IPB007
Perchlorate	0.00	0	NA	16–MAR–10	per0316049a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198–1

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	16–MAR–10	per0316049a	IPB008
Perchlorate	0.00	0	NA	16–MAR–10	per0316060a	IPB009
Perchlorate–101	0.00	0	NA	16–MAR–10	per0316060a	IPB009
Perchlorate	0.00	0	NA	17–MAR–10	per0316073a	IPB010
Perchlorate–101	0.00	0	NA	17–MAR–10	per0316073a	IPB010
Perchlorate	0.00	0	NA	17–MAR–10	per0316086a	IPB011
Perchlorate–101	0.00	0	NA	17–MAR–10	per0316086a	IPB011
Perchlorate	0.00	0	NA	17–MAR–10	per0316099a	IPB012
Perchlorate–101	0.00	0	NA	17–MAR–10	per0316099a	IPB012
Perchlorate	0.00	0	NA	17–MAR–10	per0316112a	IPB013
Perchlorate–101	0.00	0	NA	17–MAR–10	per0316112a	IPB013

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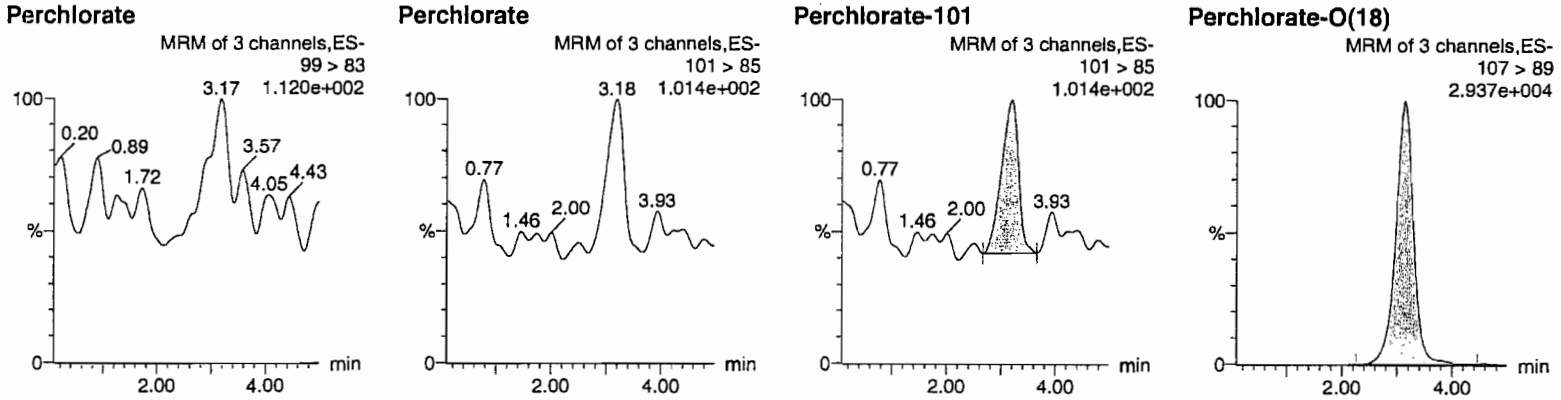
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316008a
Date: 16-Mar-2010
Time: 16:56:40
ID: IPB002
Vial: 1:1,A

CWW
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85	3.18	21.675	21.675	bb			0.0022			8.964	
IPB002	Perchlorate-O(18)	107 > 89	3.14	10852.298	10852.298	bb			0.4542	90.84	-9.16	2345.6...	

MMD
3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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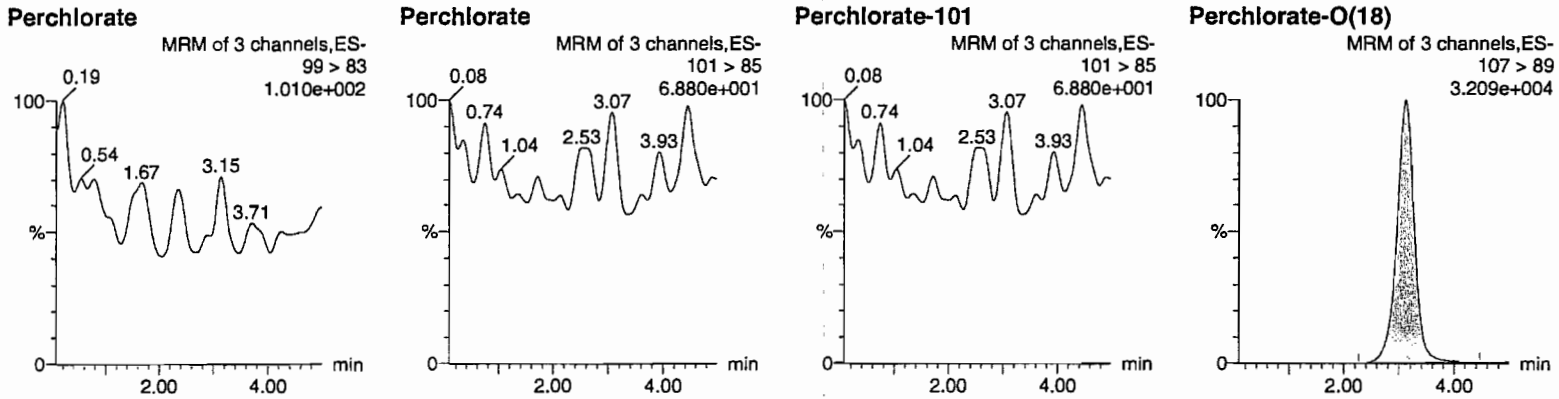
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316010a
Date: 16-Mar-2010
Time: 17:12:44
ID: IPB003
Vial: 1:1,A

CW 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.12	11719.064	11719.064	bb			0.4905	98.09	-1.91	360.980	

MMT 3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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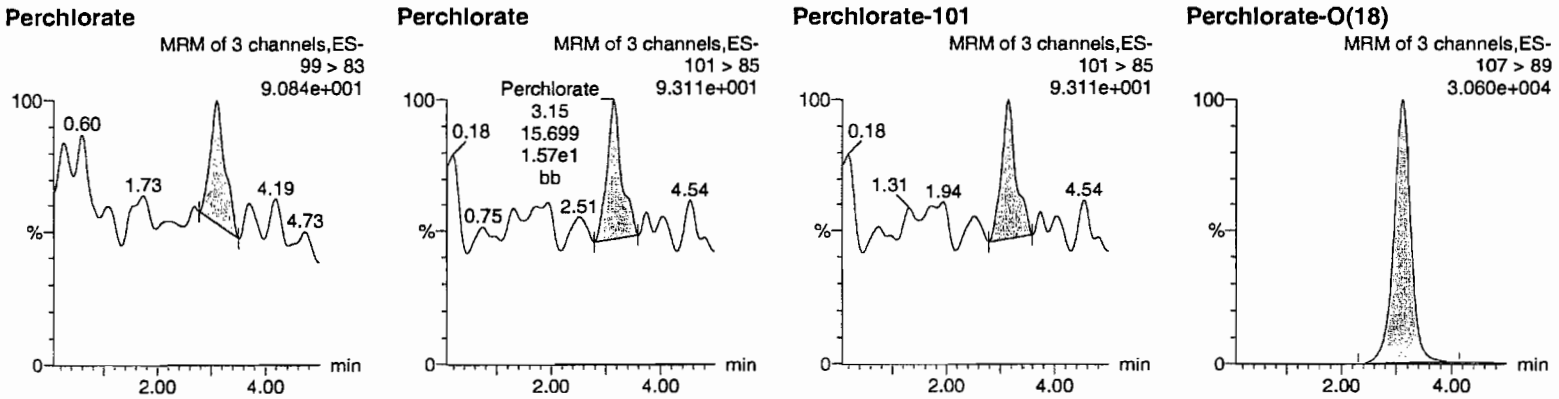
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316015a
Date: 16-Mar-2010
Time: 17:52:55
ID: IPB004
Vial: 1:1,A

GW
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	3.10	14.013	14.013	bb			0.0005			14.637	0.89
IPB004	Perchlorate-101	101 > 85	3.15	15.699	15.699	bb			0.0016			11.849	
IPB004	Perchlorate-O(18)	107 > 89	3.11	10917.076	10917.076	bb			0.4569	91.38	-8.62	4536.1...	

UCA4
<0.0500

MAT
3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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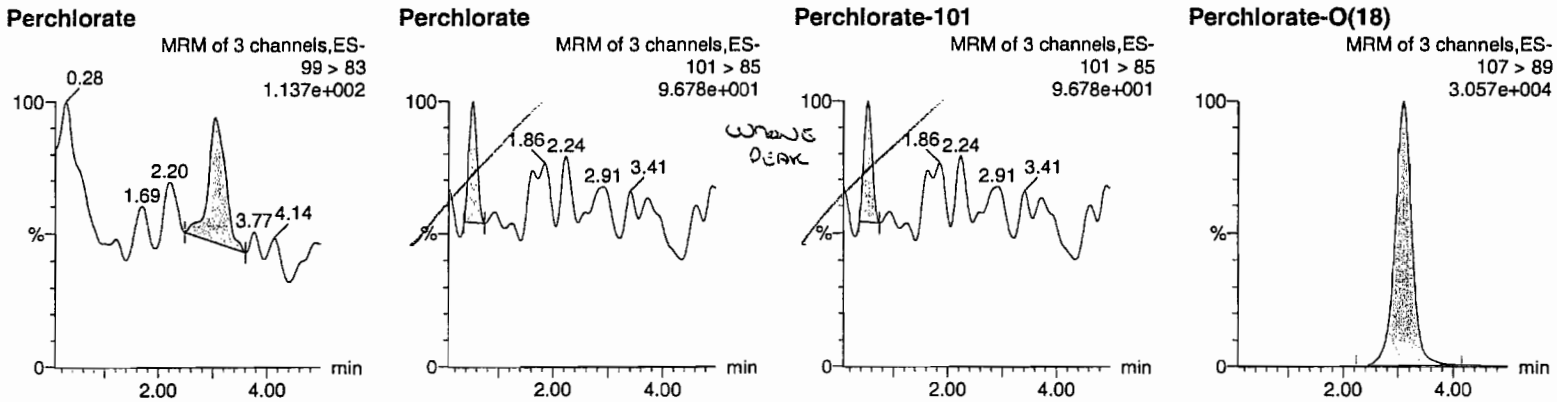
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316023a
Date: 16-Mar-2010
Time: 18:57:12
ID: IPB005
Vial: 1:1,A

[illegible] 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	3.05	20.337	20.337	bb			0.0007	<.00500		38.968	2.53
IPB005	Perchlorate-101	101 > 85	0.53	8.036	8.036	bb			0.0008			12.160	
IPB005	Perchlorate-O(18)	107 > 89	3.10	10865.716	10865.716	bb			0.4547	90.95	-9.05	902.999	

MATT 3/18/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

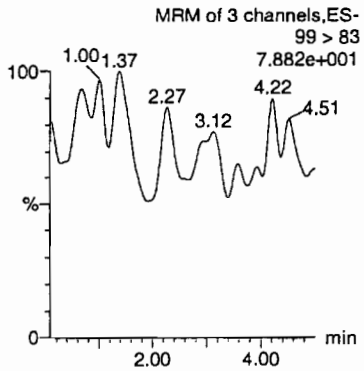
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

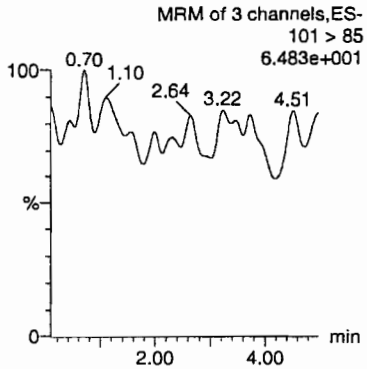
Name: per0316027a
Date: 16-Mar-2010
Time: 19:29:22
ID: IPB006
Vial: 1:1,A

CWW
03-17-10

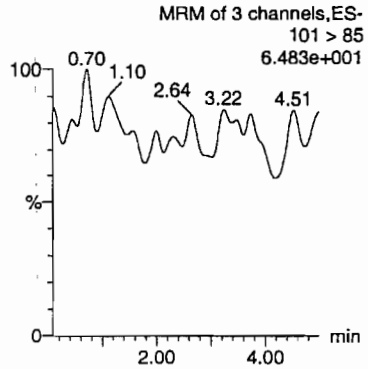
Perchlorate



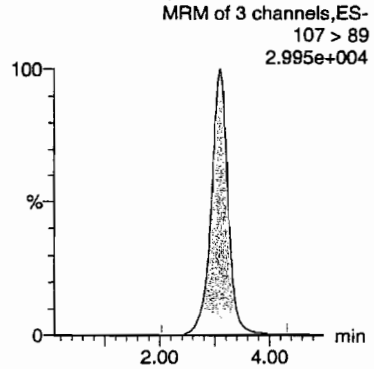
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.09	10701.523	10701.523	bb			0.4479	89.57	-10.43	2319.4...	

MMT
3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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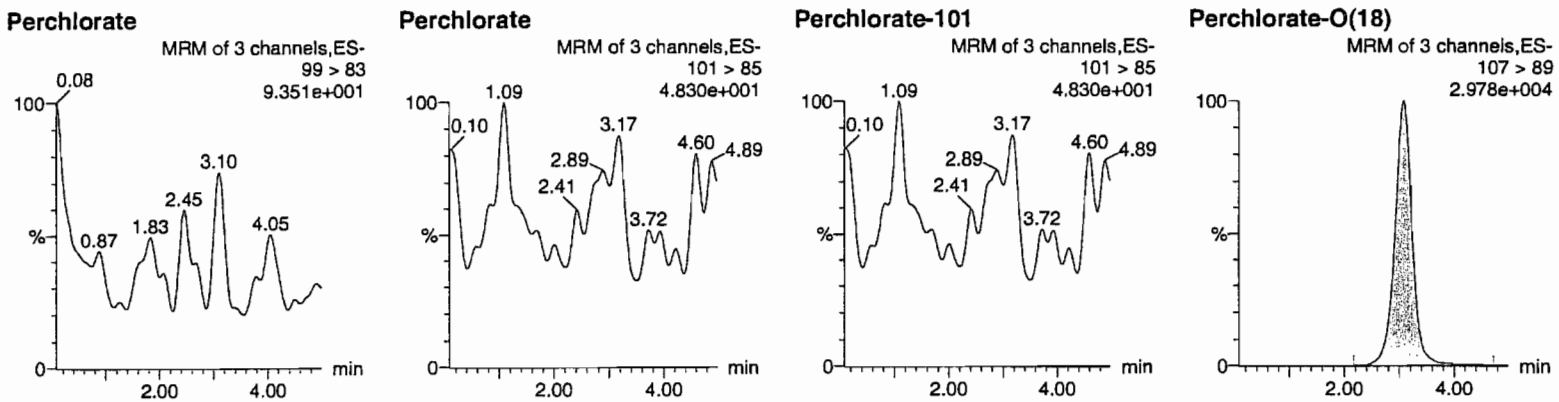
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316036a
Date: 16-Mar-2010
Time: 20:41:46
ID: IPB007
Vial: 1:1,A

CWW 03-17-10



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	3.09	10877.410	10877.410	bb			0.4552	91.05	-8.95	933.419	

MAT 3/18/10

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

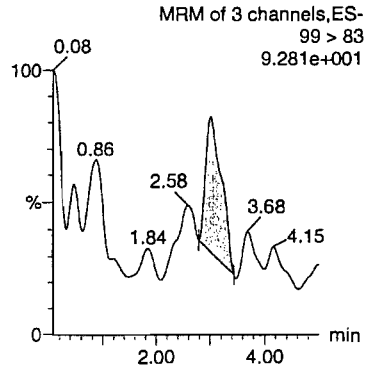
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

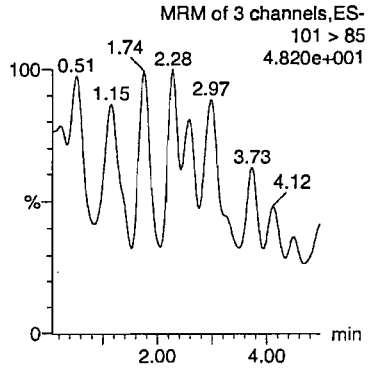
Name: per0316049a
Date: 16-Mar-2010
Time: 22:26:24
ID: IPB008
Vial: 1:1,A

CWW 03-17-10

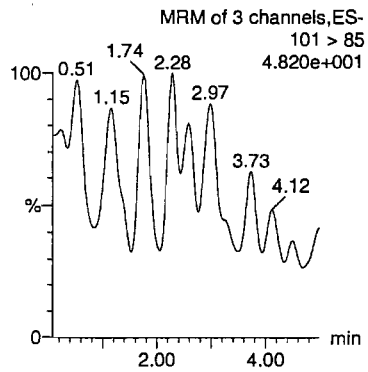
Perchlorate



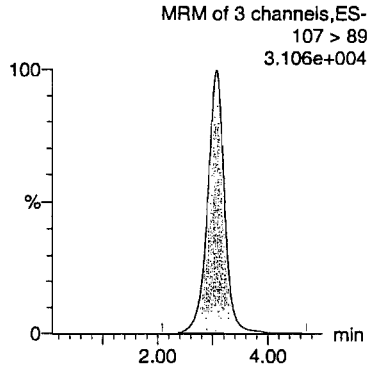
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	3.01	16.420	16.420	bb			0.0006			7.784	0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.06	11192.282	11192.282	bb			0.4684	93.68	-6.32	3454.6...	

MMT 3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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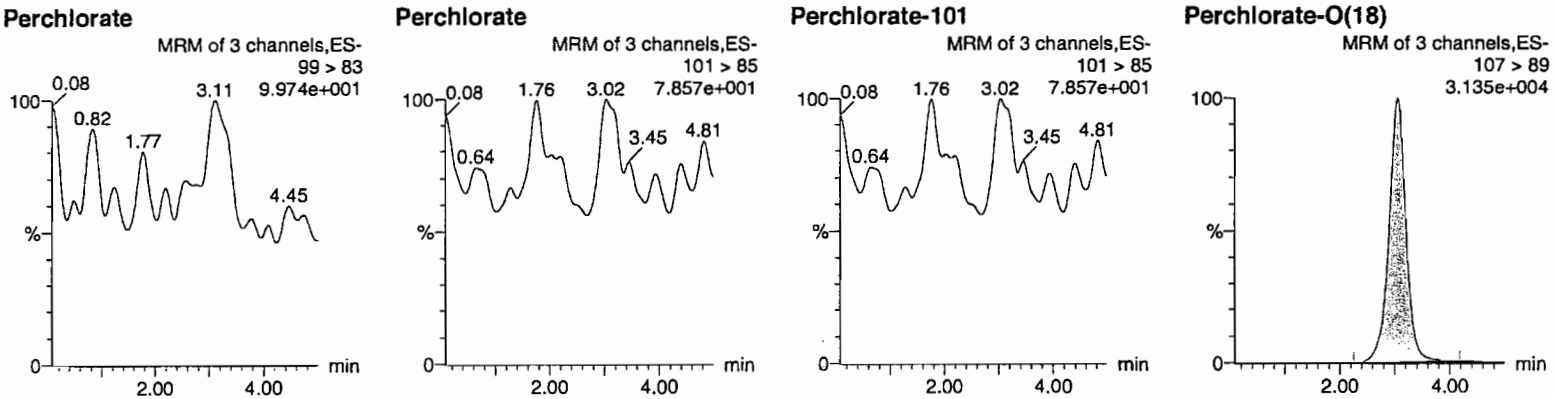
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316060a
Date: 16-Mar-2010
Time: 23:55:02
ID: IPB009
Vial: 1:1,A

3/18-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	3.05	11205.789	11205.789	bb			0.4690	93.79	-6.21	3795.6...	

MAP 3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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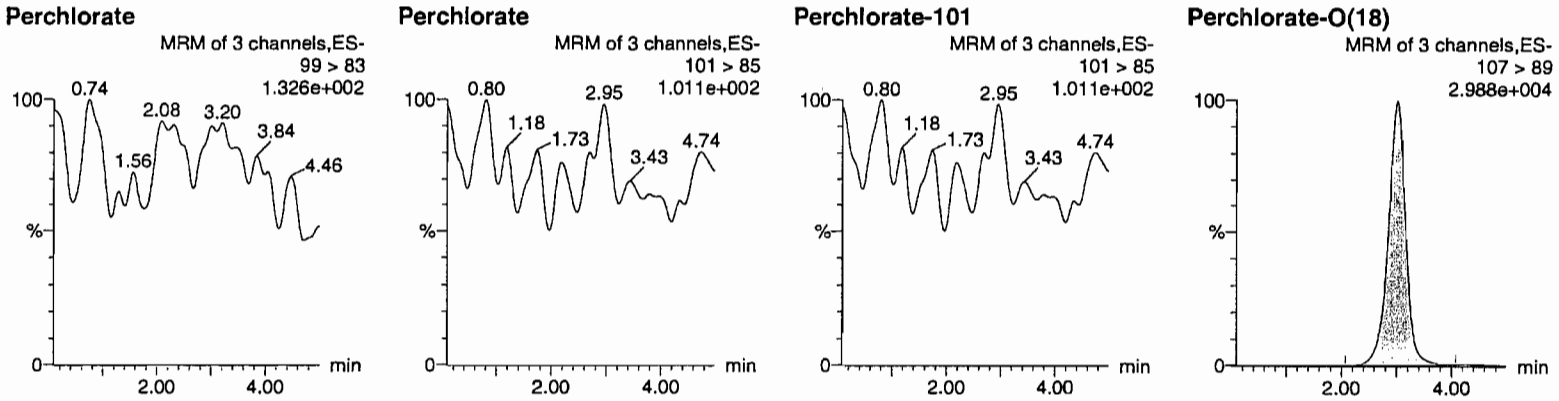
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316073a
Date: 17-Mar-2010
Time: 01:39:53
ID: IPB010
Vial: 1:1,A

Cmo 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83											0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	3.01	10866.314	10866.314	bb			0.4548	90.95	-9.05	794.125	

MAT 3/18/10

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

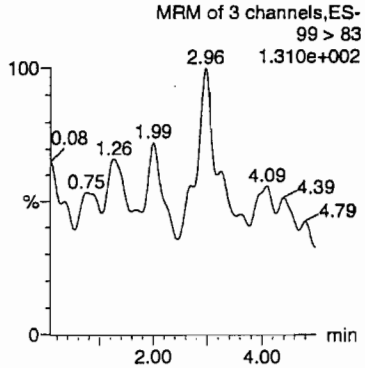
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

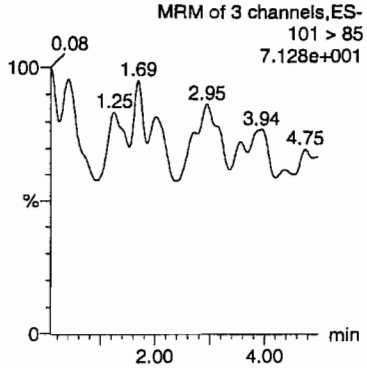
Name: per0316086a
Date: 17-Mar-2010
Time: 03:24:46
ID: IPB011
Vial: 1:1,A

03-17-10

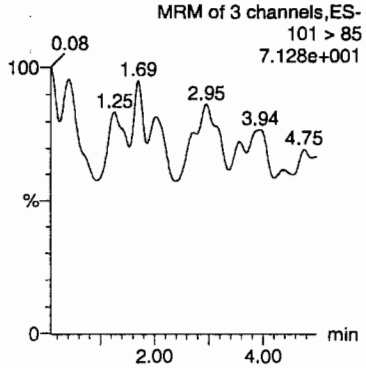
Perchlorate



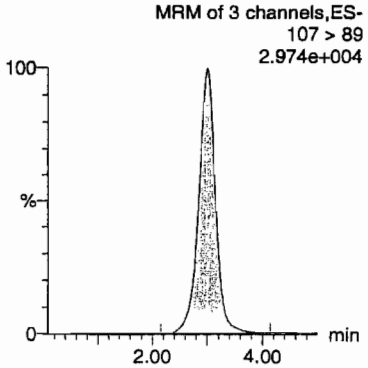
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	3.00	10489.233	10489.233	bb			0.4390	87.80	-12.20	1245.2...	

MATT 3/18/10

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

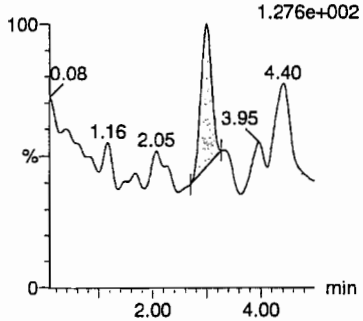
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

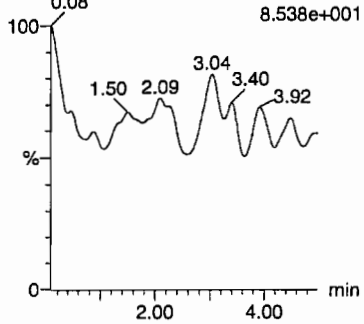
Name: per0316099a
Date: 17-Mar-2010
Time: 05:09:51
ID: IPB012
Vial: 1:1,A

AW 03-17-10

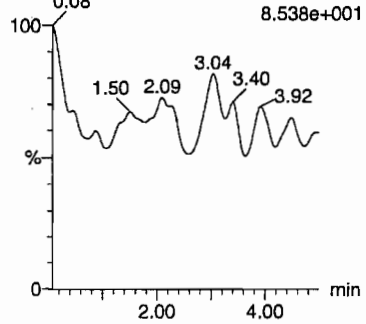
Perchlorate



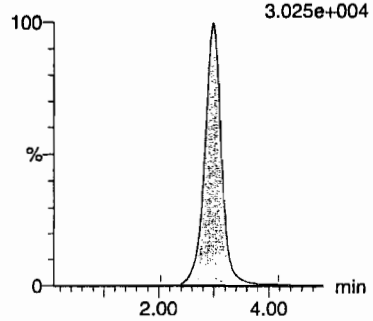
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB012	Perchlorate	99 > 83	2.99	16.577	16.577	bb			0.0006			18.954	0.00
IPB012	Perchlorate-101	101 > 85											
IPB012	Perchlorate-O(18)	107 > 89	2.99	10736.125	10736.125	bb			0.4493	89.86	-10.14	3921.4...	

MM 3/18/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

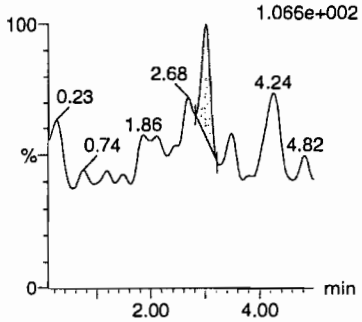
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

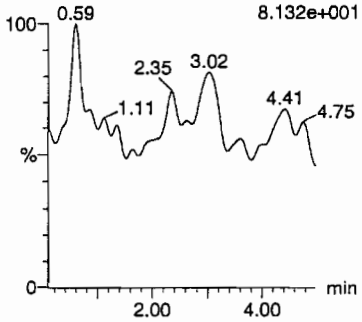
Name: per0316112a
Date: 17-Mar-2010
Time: 06:55:47
ID: IPB013
Vial: 1:1,A

CWW 03-17-10

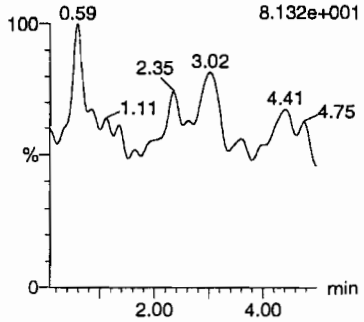
Perchlorate



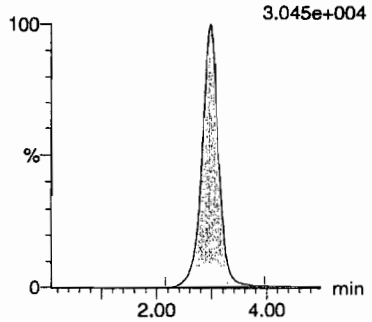
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB013	Perchlorate	99 > 83	3.00	8.798	8.798	bb			0.0003			14.108	0.00
IPB013	Perchlorate-101	101 > 85											
IPB013	Perchlorate-O(18)	107 > 89	2.97	10634.489	10634.489	bb			0.4451	89.01	-10.99	1459.7...	

MAT 3/18/10

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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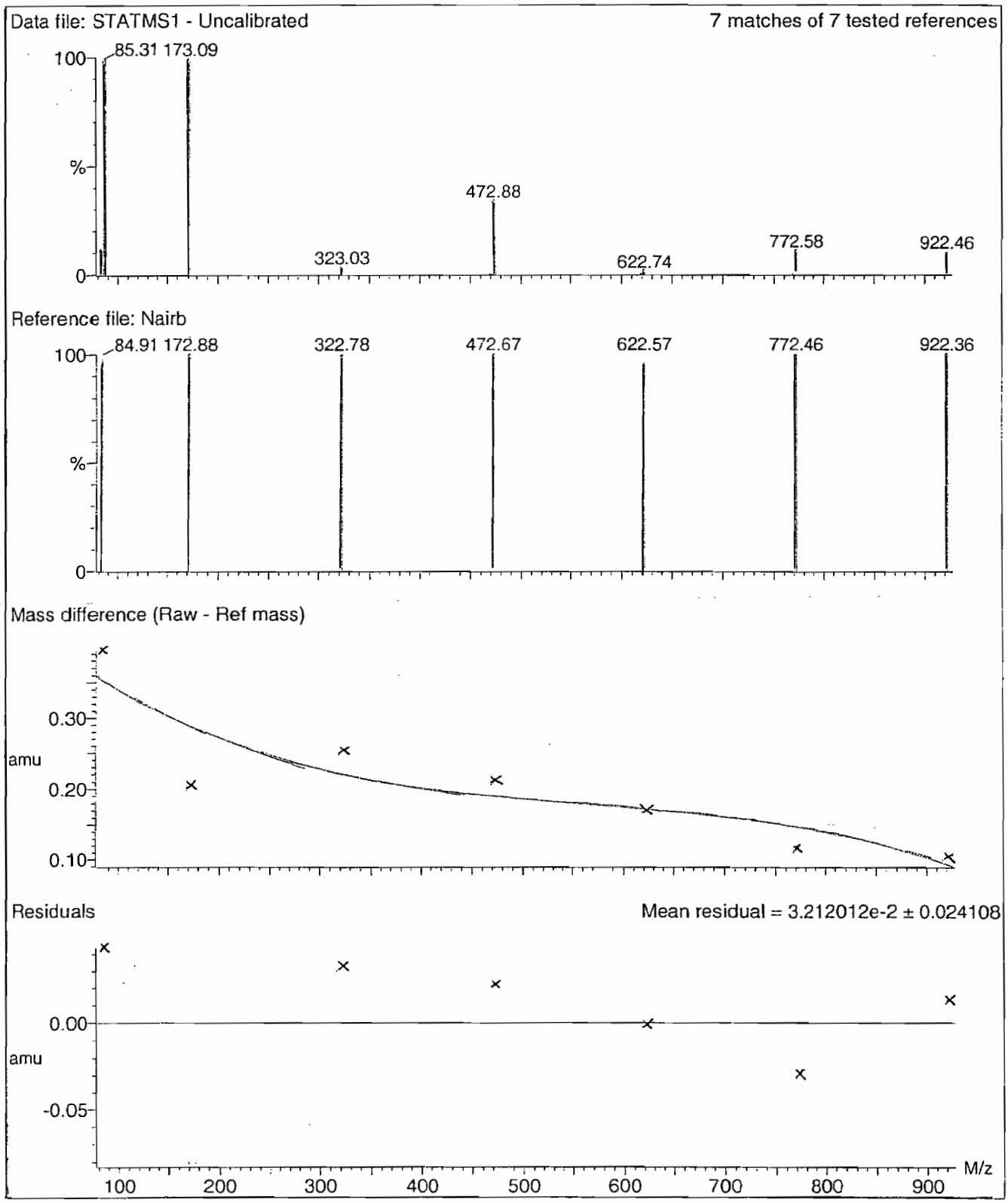
QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: **Tue Jan 08 12:19:12 2008**

PEAKS HIGHLIGHTED BY CWW 01-09-08



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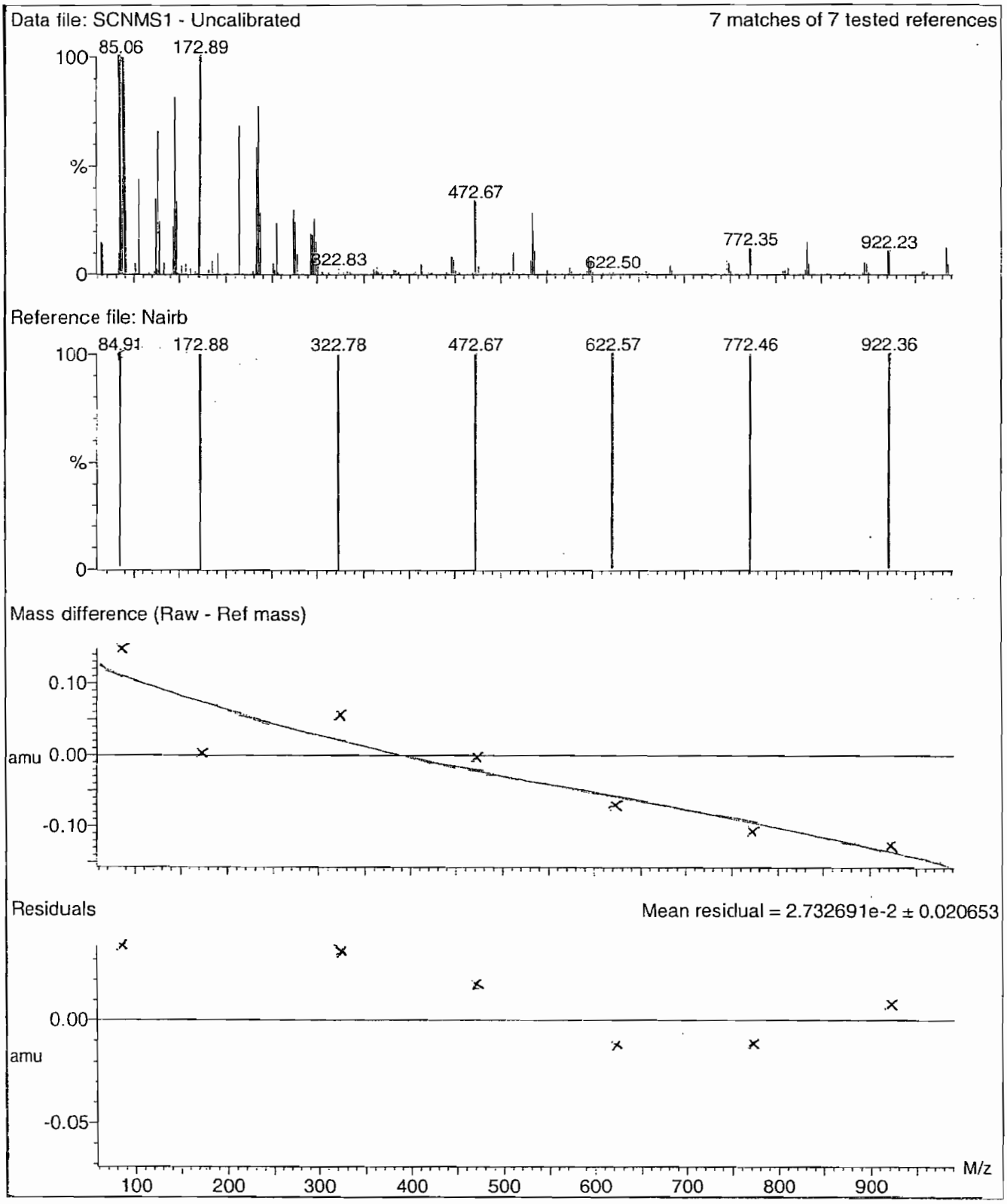
Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**



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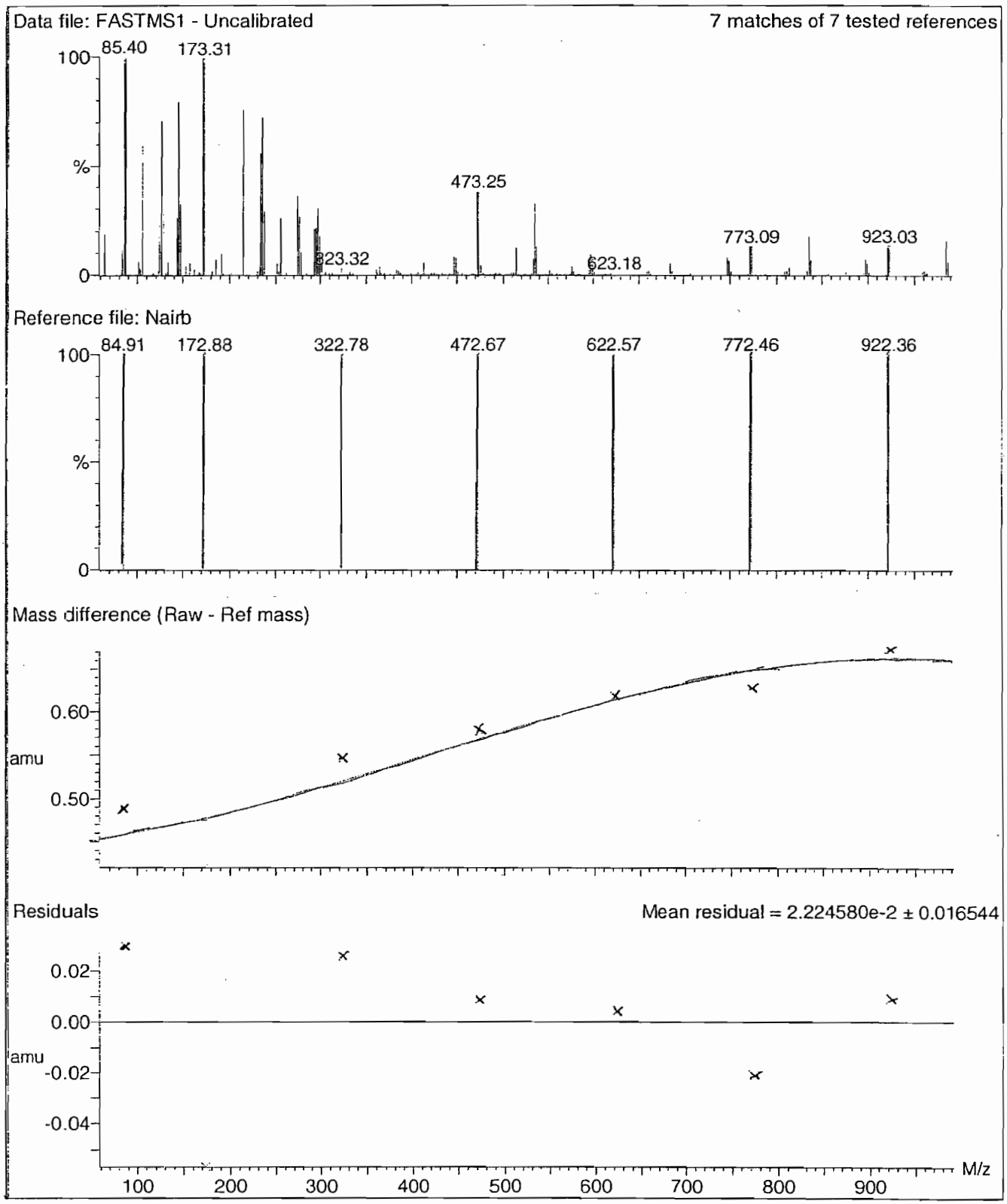
Calibration Report - MS1 Scan Speed Compensation

Printed: **Tue Jan 08 12:21:04 2008**



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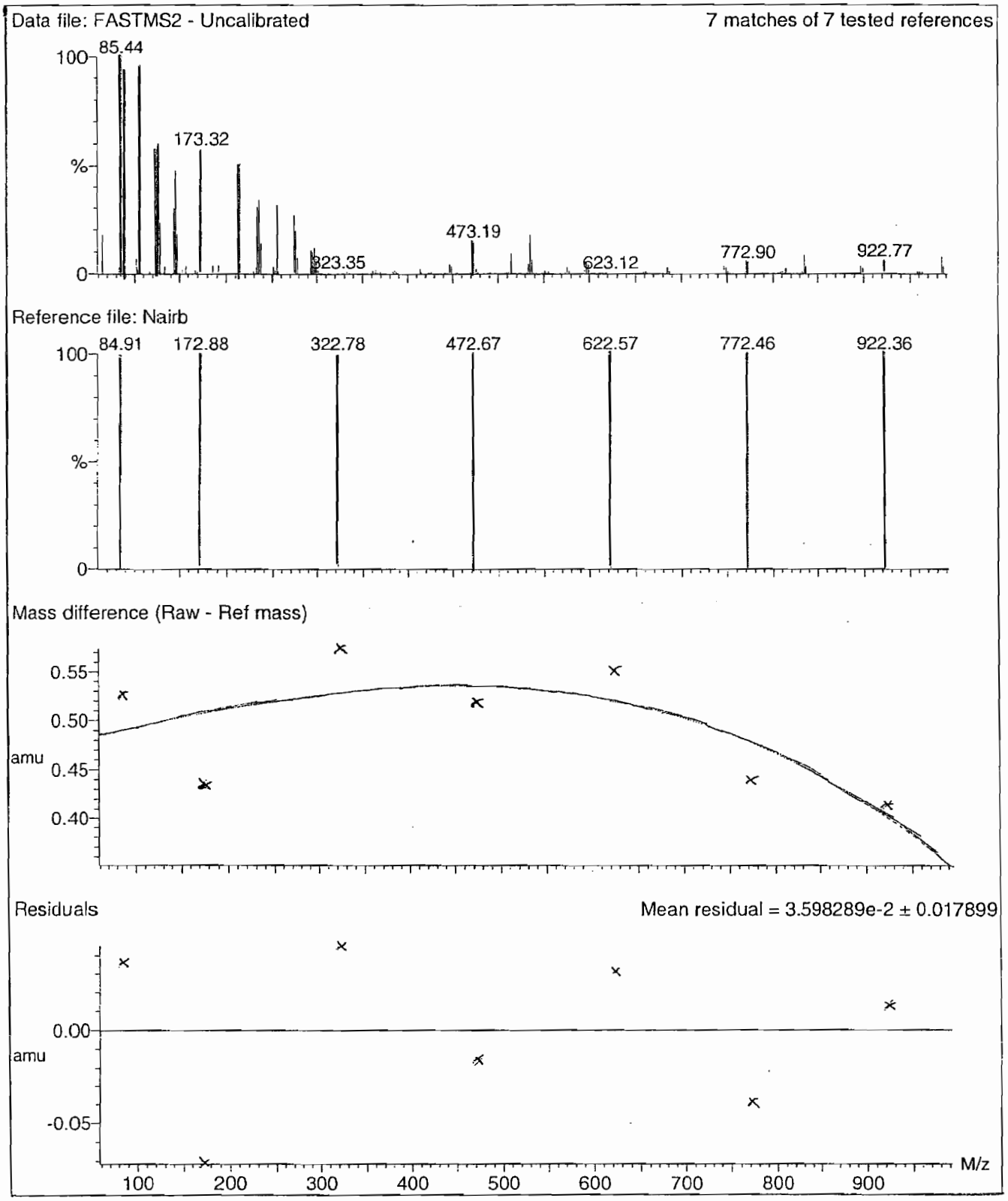
Calibration Report - MS2 Scan Speed Compensation

Printed: **Tue Jan 08 12:23:51 2008**



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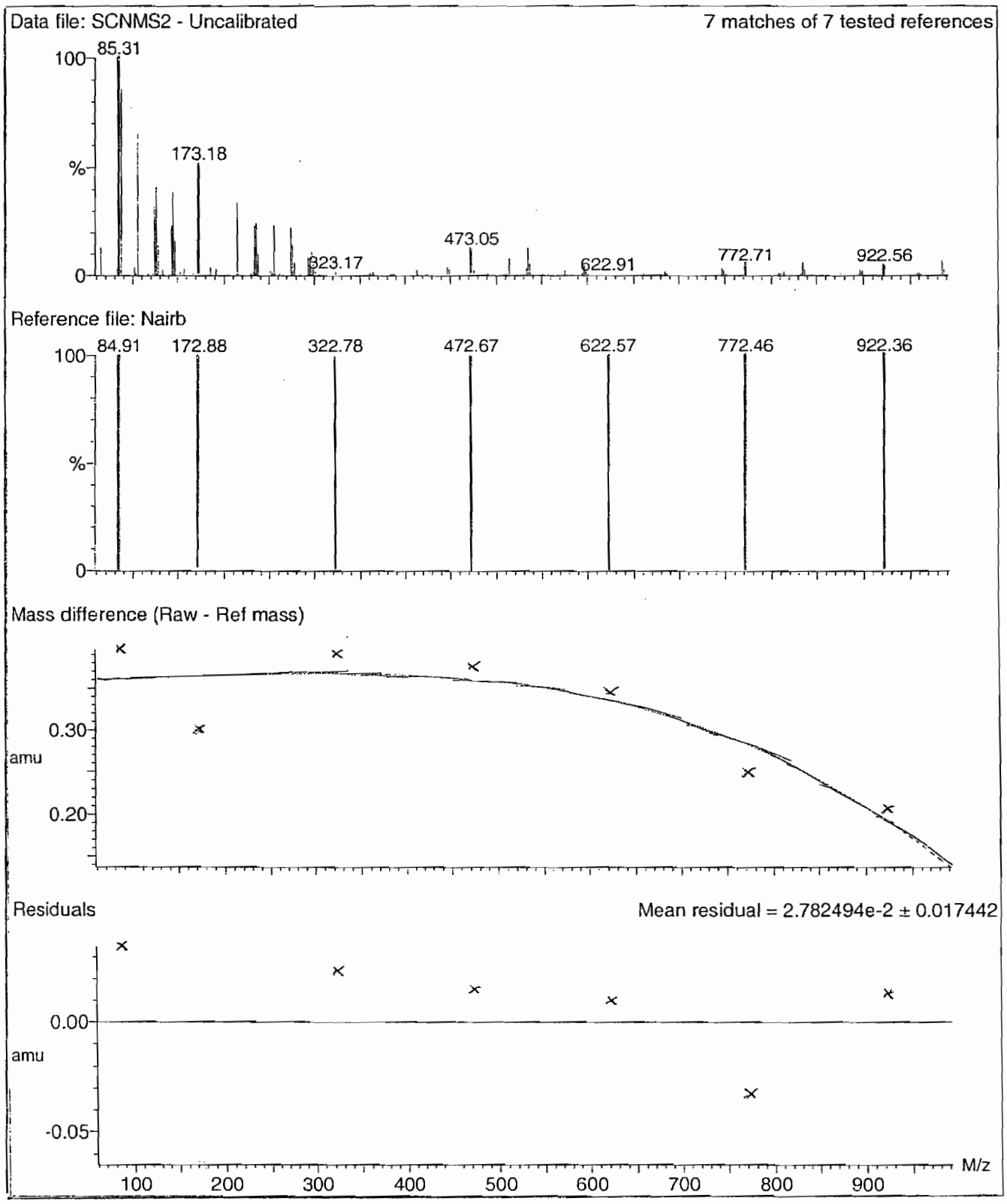
Printed: Tue Jan 08 12:22:56 2008



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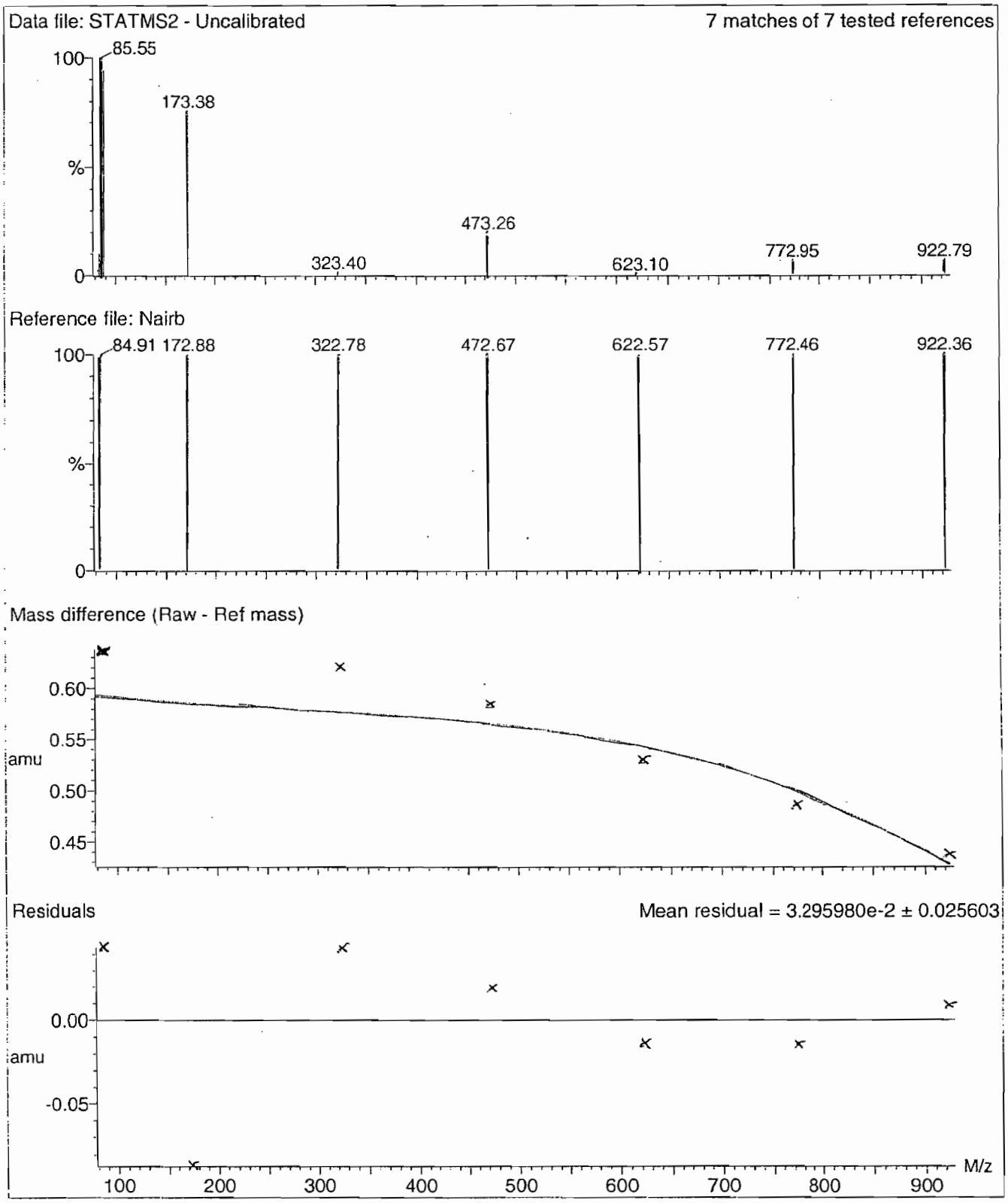
Calibration Report - MS2 Static

Printed: **Tue Jan 08 12:21:59 2008**



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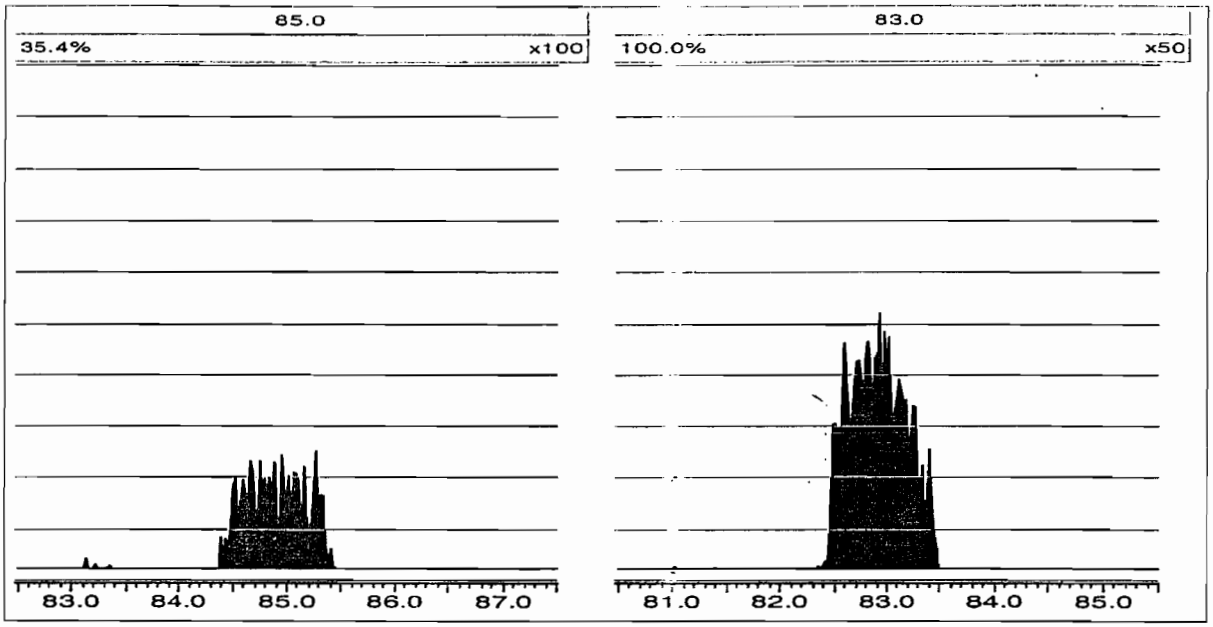
File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, March 16, 2010 14:13:45 Eastern Standard Time



Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2198-1

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	**per0316006a**	**16-MAR-10**	**11562.3**				
Lower Area Limit			**5781.15**				
Upper Area Limit			**23124.6**				
1202063757	per0316088a	17-MAR-10 03:40	11417.9	3			
1202063758	per0316089a	17-MAR-10 03:49	11116.2	3	3.01077	1.004	
1202063761	per0316090a	17-MAR-10 03:57	12059.9	3.04	3.048	1.003	
248518001	per0316103a	17-MAR-10 05:42	10975.3	2.99			

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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: 962135

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE36-10-8294

Date Received: 03-MAR-10

GEL Job No (SDG): 10-2198-1

GEL Sample ID: 248518001

Date Filtered: 08-MAR-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	17-MAR-10 05:42	per0316103a
	Perchlorate Isotope Ratio						1	17-MAR-10 05:42	per0316103a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-MAR-10 05:42	per0316103a
	Perchlorate-O(18)			0.459	ug/L		1	17-MAR-10 05:42	per0316103a

^ 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

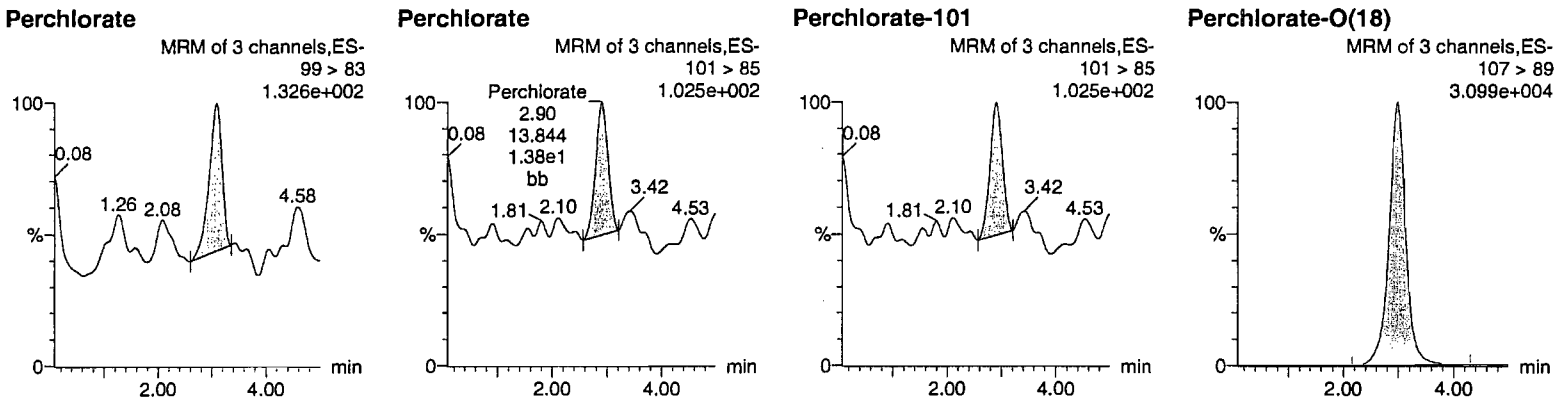
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316103a
Date: 17-Mar-2010
Time: 05:42:11
ID: 248518001
Vial: 2:7,A

| LANL | 962136 | L2a | 11

WJ 03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248518001	Perchlorate	99 > 83	3.09	21.107	21.107	bb			0.0007			9.096	1.52
248518001	Perchlorate-101	101 > 85	2.90	13.844	13.844	bb			0.0014			13.754	
248518001	Perchlorate-O(18)	107 > 89	2.99	10975.304	10975.304	bb			0.4593	91.86	-8.14	2554.5...	

OK 94
<0.050
MM
3/18/10

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):** 10–2198–1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 16–MAR–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: 29209.88

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):** 10–2198–1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 16–MAR–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: 9722.924

Response Type: External Standard

Curve Type: RF

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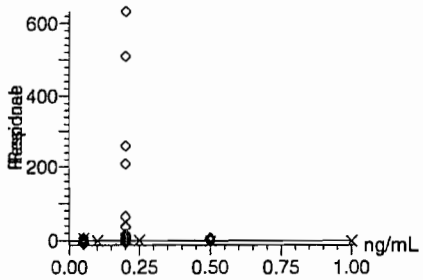
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

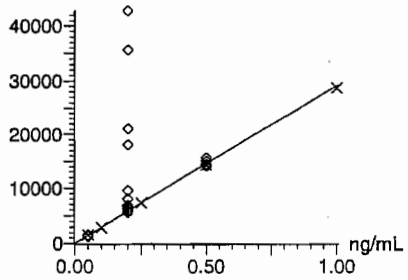
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

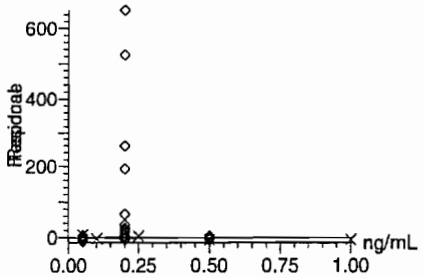
Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031610a.mdb 17 Mar 2010 09:00:50
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031610a.cdb 17 Mar 2010 09:01:07

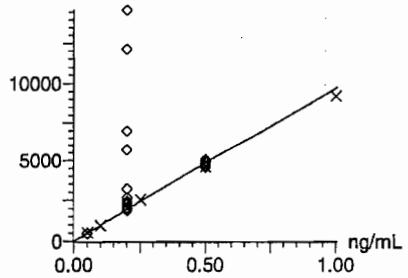
Compound name: Perchlorate
Response Factor: 29209.9
RRF SD: 864.153, % Relative SD: 2.95843
Response type: External Std, Area
Curve type: RF





Compound name: Perchlorate-101
Response Factor: 9722.93
RRF SD: 575.815, % Relative SD: 5.92224
Response type: External Std, Area
Curve type: RF





03-17-10

MM 3/18/10

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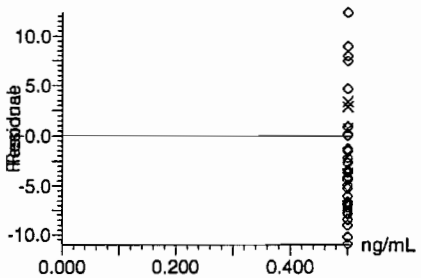
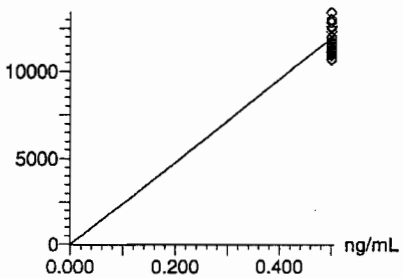
Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 23894.4
RRF SD: 799.2, % Relative SD: 3.34471
Response type: External Std, Area
Curve type: RF





CJJ
03-17-10

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): 10–2198–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.03	16–MAR–10 17:04	per0316009a
Perchlorate Isotope Ratio		2.95		16–MAR–10 17:04	per0316009a
Perchlorate–101	.5	.52	104.81	16–MAR–10 17:04	per0316009a

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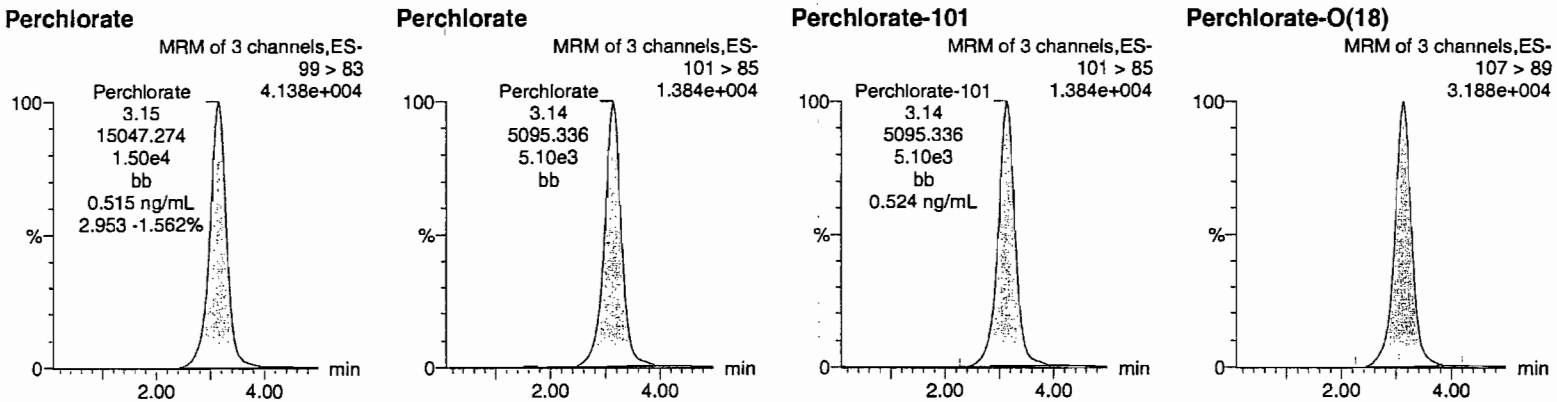
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316009a
Date: 16-Mar-2010
Time: 17:04:42
ID: WCL100309-06ICV
Vial: 1:2,A

Pwo
Gwo
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06ICV	Perchlorate	99 > 83	3.15	15047.274	15047.274	bb			0.5151	103.03	3.03	765.774	2.95
WCL100309-06ICV	Perchlorate-101	101 > 85	3.14	5095.336	5095.336	bb			0.5241	104.81	4.81	6062.4...	
WCL100309-06ICV	Perchlorate-O(18)	107 > 89	3.12	11358.490	11358.490	bb			0.4754	95.07	-4.93	1508.7...	

MM 3/16/10

$$\frac{15047.274}{29209.9} = 0.515$$

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.88	16–MAR–10 18:49	per0316022a
Perchlorate Isotope Ratio		3.15		16–MAR–10 18:49	per0316022a
Perchlorate–101	.5	.47	93.5	16–MAR–10 18:49	per0316022a
Perchlorate	.5	.49	97.54	16–MAR–10 20:33	per0316035a
Perchlorate Isotope Ratio		3.03		16–MAR–10 20:33	per0316035a
Perchlorate–101	.5	.48	96.86	16–MAR–10 20:33	per0316035a
Perchlorate	.5	.52	103.41	16–MAR–10 22:18	per0316048a
Perchlorate Isotope Ratio		3.07		16–MAR–10 22:18	per0316048a
Perchlorate–101	.5	.51	101.33	16–MAR–10 22:18	per0316048a
Perchlorate	.5	.54	107.21	16–MAR–10 23:47	per0316059a
Perchlorate Isotope Ratio		3.14		16–MAR–10 23:47	per0316059a
Perchlorate–101	.5	.51	102.51	16–MAR–10 23:47	per0316059a
Perchlorate	.5	.5	99.22	17–MAR–10 01:31	per0316072a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.01		17–MAR–10 01:31	per0316072a
Perchlorate–101	.5	.5	99.19	17–MAR–10 01:31	per0316072a
Perchlorate	.5	.49	97.46	17–MAR–10 03:16	per0316085a
Perchlorate Isotope Ratio		2.95		17–MAR–10 03:16	per0316085a
Perchlorate–101	.5	.5	99.35	17–MAR–10 03:16	per0316085a
Perchlorate	.5	.5	99.24	17–MAR–10 05:01	per0316098a
Perchlorate Isotope Ratio		3.19		17–MAR–10 05:01	per0316098a
Perchlorate–101	.5	.47	93.57	17–MAR–10 05:01	per0316098a
Perchlorate	.5	.49	97.9	17–MAR–10 06:47	per0316111a
Perchlorate Isotope Ratio		3.04		17–MAR–10 06:47	per0316111a
Perchlorate–101	.5	.48	96.75	17–MAR–10 06:47	per0316111a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316022a
Date: 16-Mar-2010
Time: 18:49:10
ID: WCL100309-06CCV
Vial: 1:2,A

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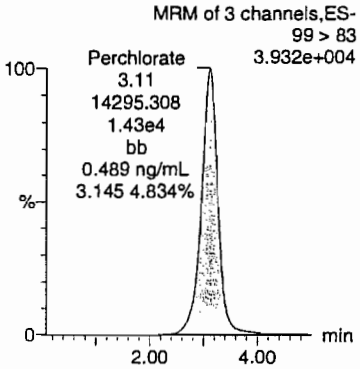
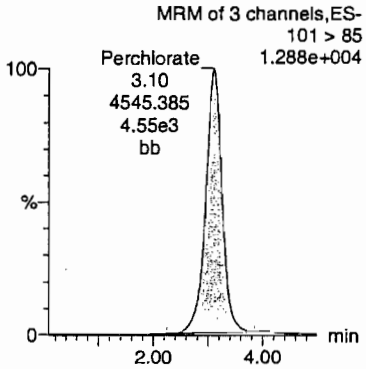
03-17-10

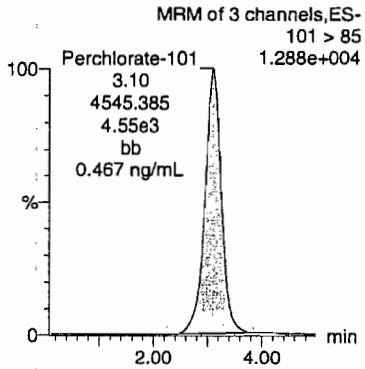
Perchlorate



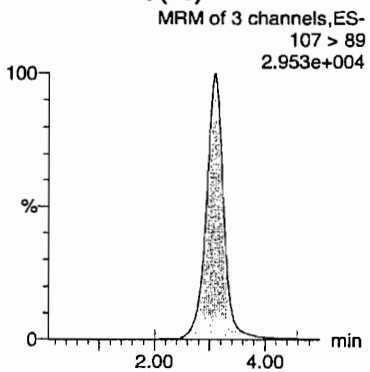
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.11	14295.308	14295.308	bb			0.4894	97.88	-2.12	15740....	3.15
WCL100309-06CCV	Perchlorate-101	101 > 85	3.10	4545.385	4545.385	bb			0.4675	93.50	-6.50	503.156	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.10	10724.596	10724.596	bb			0.4488	89.77	-10.23	985.181	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316035a
Date: 16-Mar-2010
Time: 20:33:44
ID: WCL100309-06CCV
Vial: 1:2,A

Pass
ano
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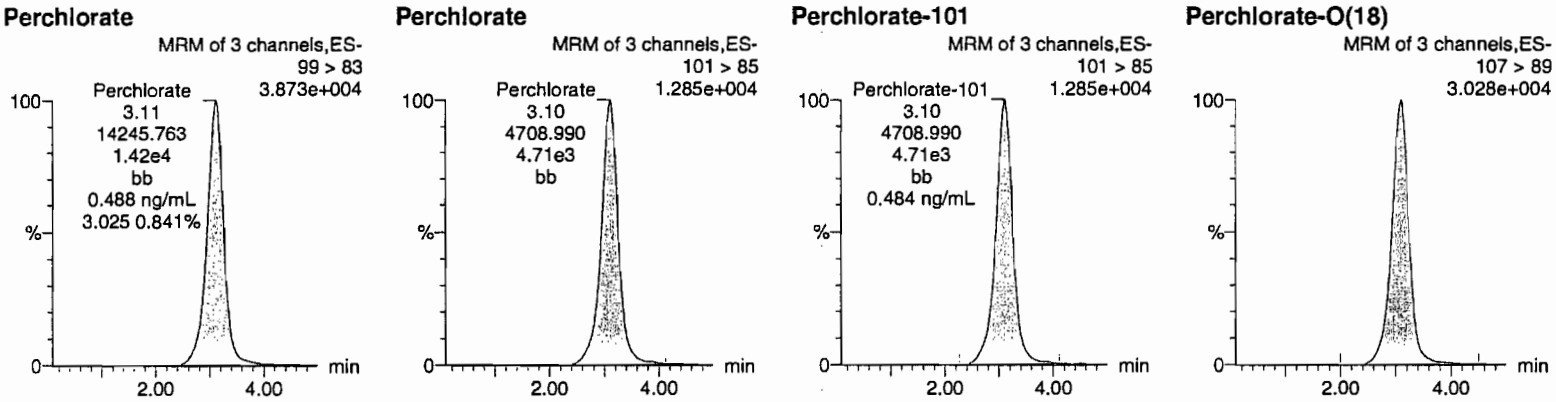

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.11	14245.763	14245.763	bb			0.4877	97.54	-2.46	532.304	3.03
WCL100309-06CCV	Perchlorate-101	101 > 85	3.10	4708.990	4708.990	bb			0.4843	96.86	-3.14	2992.1...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.09	11023.469	11023.469	bb			0.4613	92.27	-7.73	1891.5...	

MMT
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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

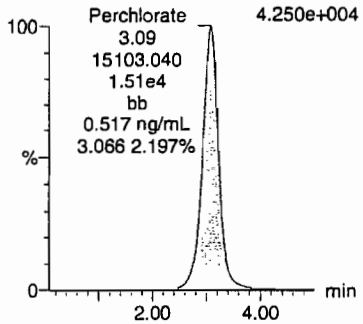
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

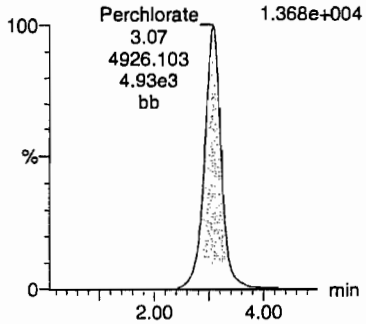
Name: per0316048a
Date: 16-Mar-2010
Time: 22:18:22
ID: WCL100309-06CCV
Vial: 1:2,A

PWD
GWO
03-17-10

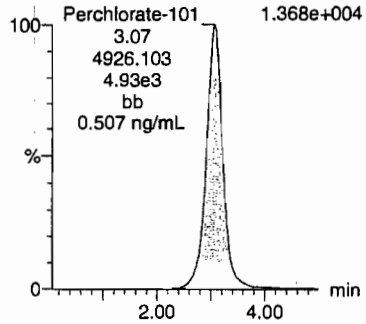
Perchlorate



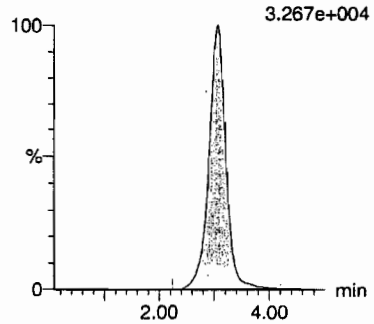
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.09	15103.040	15103.040	bb			0.5171	103.41	3.41	3240.2...	3.07
WCL100309-06CCV	Perchlorate-101	101 > 85	3.07	4926.103	4926.103	bb			0.5066	101.33	1.33	257.517	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.06	11624.273	11624.273	bb			0.4865	97.30	-2.70	2205.1...	

MATT
3/18/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

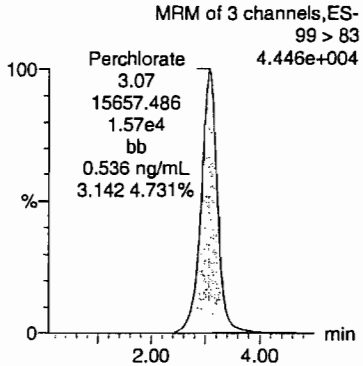
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

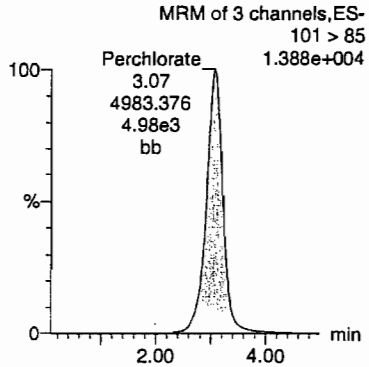
Name: per0316059a
Date: 16-Mar-2010
Time: 23:47:00
ID: WCL100309-06CCV
Vial: 1:2,A

333
3-17-10

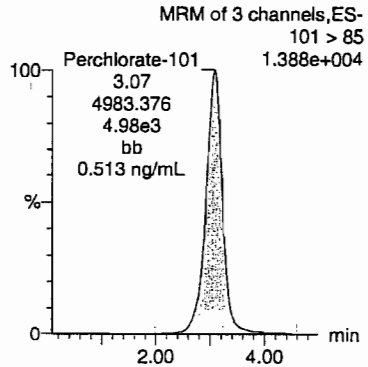
Perchlorate



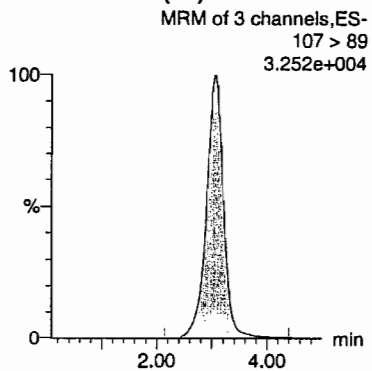
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.07	15657.486	15657.486	bb			0.5360	107.21	7.21	3252.8...	3.14
WCL100309-06CCV	Perchlorate-101	101 > 85	3.07	4983.376	4983.376	bb			0.5125	102.51	2.51	3152.8...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.05	11688.516	11688.516	bb			0.4892	97.83	-2.17	3018.0...	

MM 3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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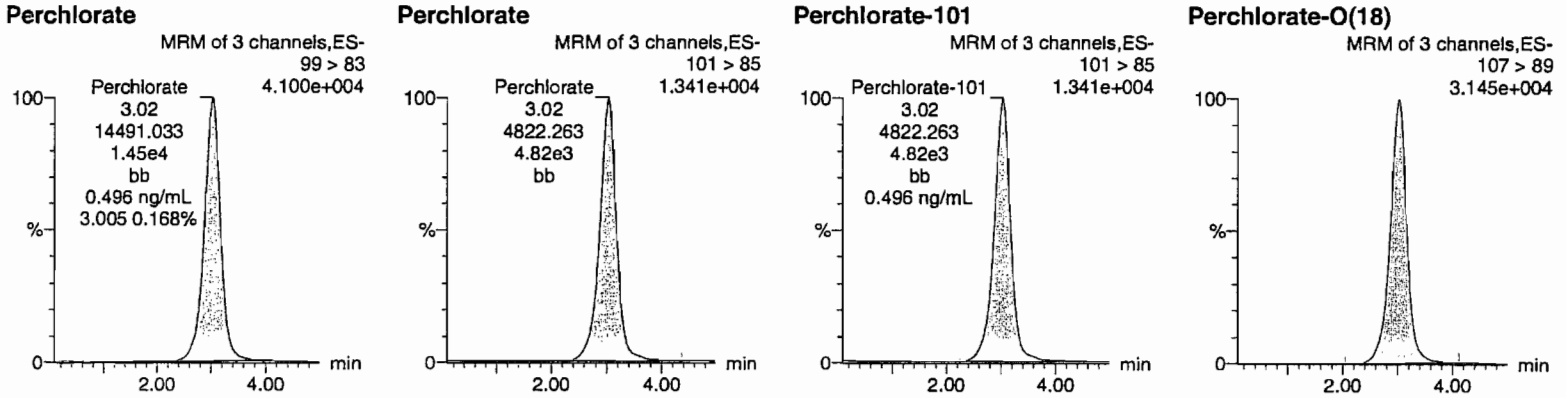
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316072a
Date: 17-Mar-2010
Time: 01:31:35
ID: WCL100309-06CCV
Vial: 1:2,A

Pass
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.02	14491.033	14491.033	bb			0.4961	99.22	-0.78	2217.4...	3.01
WCL100309-06CCV	Perchlorate-101	101 > 85	3.02	4822.263	4822.263	bb			0.4960	99.19	-0.81	897.727	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.01	11153.669	11153.669	bb			0.4668	93.36	-6.64	707.033	

MATT
3/18/10

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

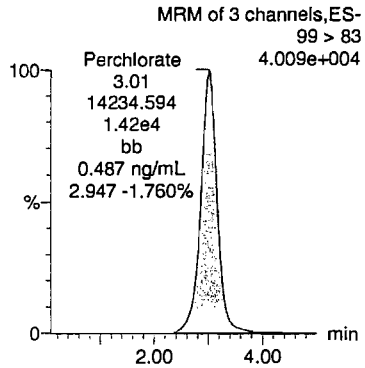
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

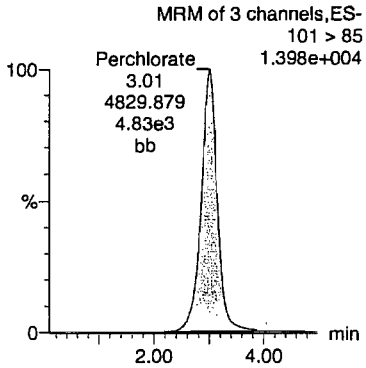
Name: per0316085a
Date: 17-Mar-2010
Time: 03:16:29
ID: WCL100309-06CCV
Vial: 1:2,A

Pass
ana
03-17-10

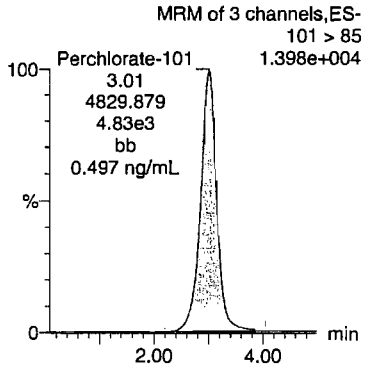
Perchlorate



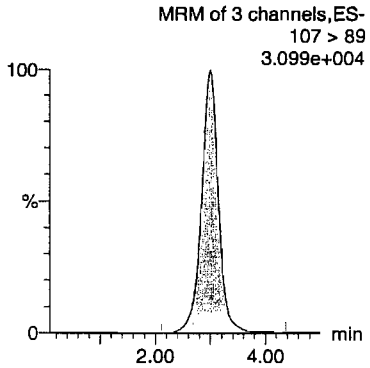
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.01	14234.594	14234.594	bb			0.4873	97.46	-2.54	1070.3...	2.95
WCL100309-06CCV	Perchlorate-101	101 > 85	3.01	4829.879	4829.879	bb			0.4968	99.35	-0.65	3350.8...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	3.00	11000.735	11000.735	bb			0.4604	92.08	-7.92	3039.7...	

MJP 3/18/10

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

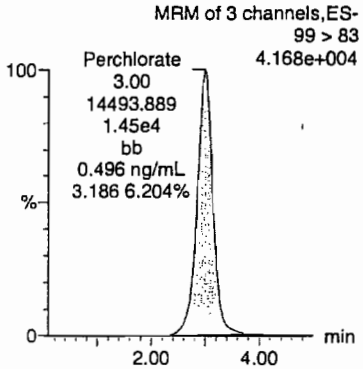
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

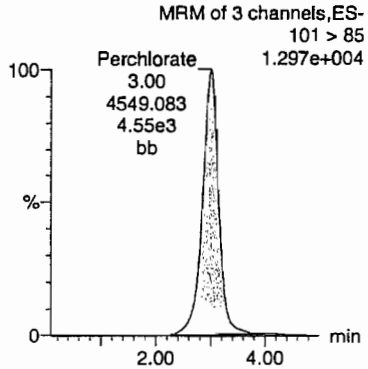
Name: per0316098a
Date: 17-Mar-2010
Time: 05:01:34
ID: WCL100309-06CCV
Vial: 1:2,A

Pass
aw
03.17.10

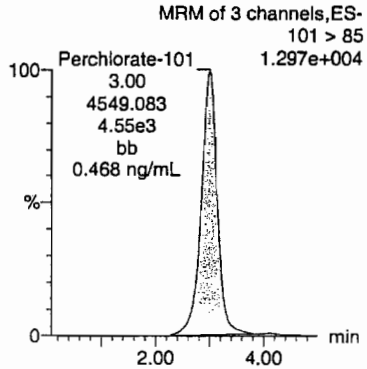
Perchlorate



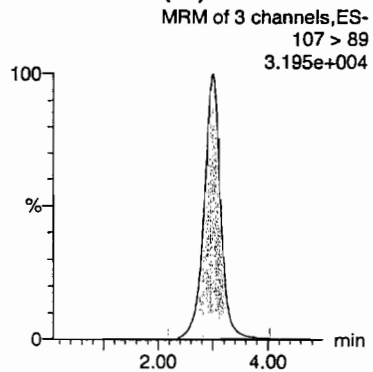
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.00	14493.889	14493.889	bb			0.4962	99.24	-0.76	1776.4...	3.19
WCL100309-06CCV	Perchlorate-101	101 > 85	3.00	4549.083	4549.083	bb			0.4679	93.57	-6.43	751.536	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.99	11228.830	11228.830	bb			0.4699	93.99	-6.01	1405.5...	

MMT
3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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

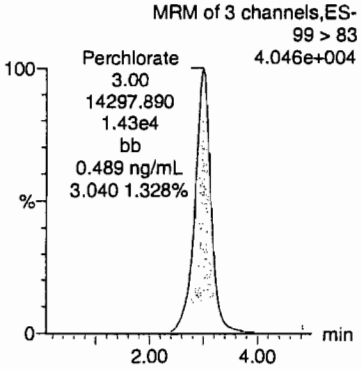
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

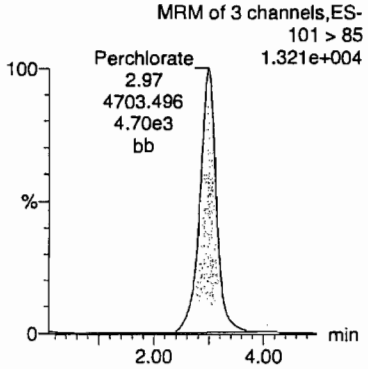
Name: per0316111a
Date: 17-Mar-2010
Time: 06:47:30
ID: WCL100309-06CCV
Vial: 1:2,A

PWD
CWD
03-17-10

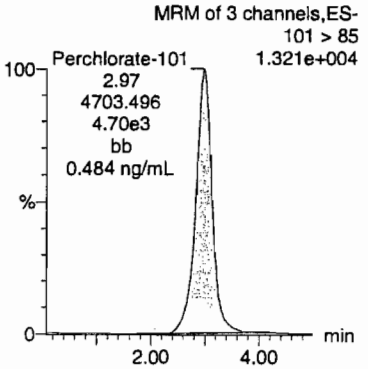
Perchlorate



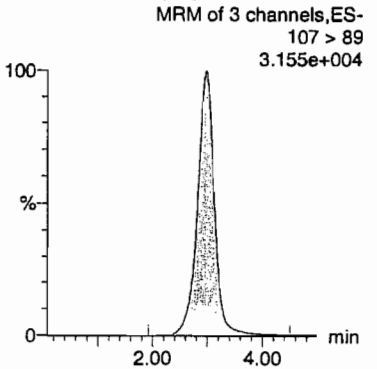
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	3.00	14297.890	14297.890	bb			0.4895	97.90	-2.10	4374.1...	3.04
WCL100309-06CCV	Perchlorate-101	101 > 85	2.97	4703.496	4703.496	bb			0.4838	96.75	-3.25	1768.6...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	2.97	11321.011	11321.011	bb			0.4738	94.76	-5.24	4026.8...	

MJT
3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	98.61	16–MAR–10 17:20	per0316011a
Perchlorate Isotope Ratio		2.87		16–MAR–10 17:20	per0316011a
Perchlorate–101	.05	.05	103.28	16–MAR–10 17:20	per0316011a
Perchlorate	.05	.05	93.33	16–MAR–10 19:05	per0316024a
Perchlorate Isotope Ratio		2.62		16–MAR–10 19:05	per0316024a
Perchlorate–101	.05	.05	106.93	16–MAR–10 19:05	per0316024a
Perchlorate	.05	.05	95.82	16–MAR–10 20:49	per0316037a
Perchlorate Isotope Ratio		2.91		16–MAR–10 20:49	per0316037a
Perchlorate–101	.05	.05	98.91	16–MAR–10 20:49	per0316037a
Perchlorate	.05	.05	94.44	16–MAR–10 22:34	per0316050a
Perchlorate Isotope Ratio		2.96		16–MAR–10 22:34	per0316050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	95.81	16–MAR–10 22:34	per0316050a
Perchlorate	.05	.05	106.19	17–MAR–10 00:03	per0316061a
Perchlorate Isotope Ratio		3.06		17–MAR–10 00:03	per0316061a
Perchlorate–101	.05	.05	104.38	17–MAR–10 00:03	per0316061a
Perchlorate	.05	.05	102.48	17–MAR–10 01:47	per0316074a
Perchlorate Isotope Ratio		3.21		17–MAR–10 01:47	per0316074a
Perchlorate–101	.05	.05	96.05	17–MAR–10 01:47	per0316074a
Perchlorate	.05	.05	96.19	17–MAR–10 03:32	per0316087a
Perchlorate Isotope Ratio		3.26		17–MAR–10 03:32	per0316087a
Perchlorate–101	.05	.04	88.55	17–MAR–10 03:32	per0316087a
Perchlorate	.05	.04	89.36	17–MAR–10 05:17	per0316100a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2198–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		2.89		17–MAR–10 05:17	per0316100a
Perchlorate–101	.05	.05	92.99	17–MAR–10 05:17	per0316100a
Perchlorate	.05	.05	100.47	17–MAR–10 07:03	per0316113a
Perchlorate Isotope Ratio		2.92		17–MAR–10 07:03	per0316113a
Perchlorate–101	.05	.05	103.48	17–MAR–10 07:03	per0316113a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

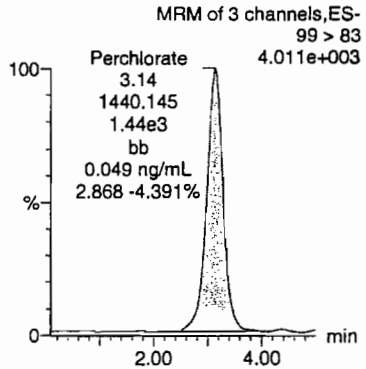
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

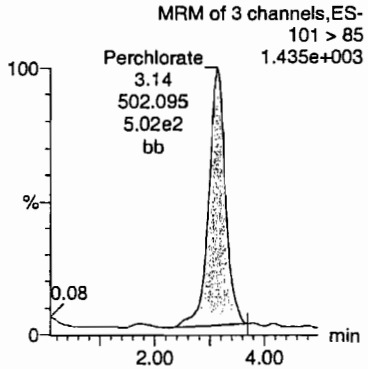
Name: per0316011a
Date: 16-Mar-2010
Time: 17:20:47
ID: WCL100309-07CRI
Vial: 1:2,B

Pass
CW
03-17-10

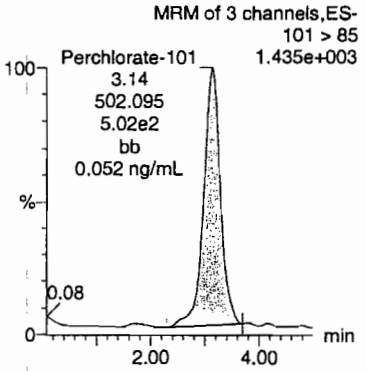
Perchlorate



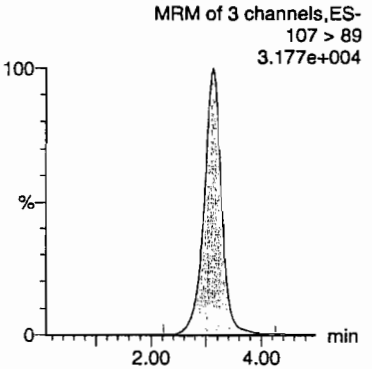
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.14	1440.145	1440.145	bb			0.0493	98.61	-1.39	486.148	2.87
WCL100309-07CRI	Perchlorate-101	101 > 85	3.14	502.095	502.095	bb			0.0516	103.28	3.28	106.460	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.11	11655.735	11655.735	bb			0.4878	97.56	-2.44	2271.4...	

MRT
3/18/10

$$\frac{1440.145}{29209.9} = 0.0493$$

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

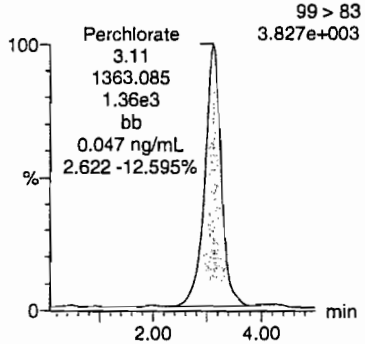
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

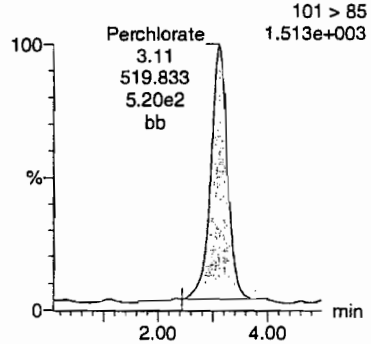
Pass
CWW
03-17-10

Name: per0316024a
Date: 16-Mar-2010
Time: 19:05:15
ID: WCL100309-07CRI
Vial: 1:2,B

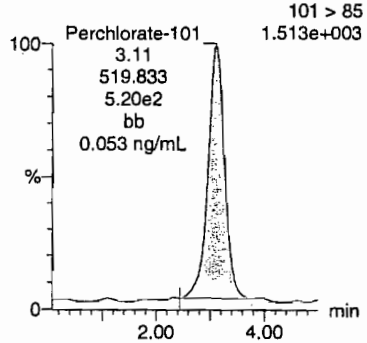
Perchlorate



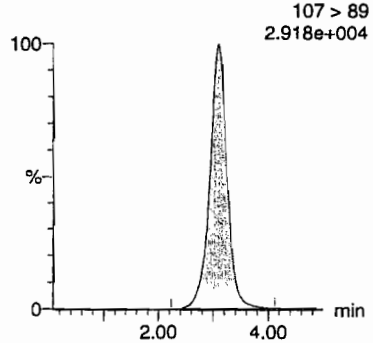
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.11	1363.085	1363.085	bb			0.0467	93.33	-6.67	332.530	2.62
WCL100309-07CRI	Perchlorate-101	101 > 85	3.11	519.833	519.833	bb			0.0535	106.93	6.93	214.332	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.10	10637.331	10637.331	bb			0.4452	89.04	-10.96	2115.3...	

MMT
3/18/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

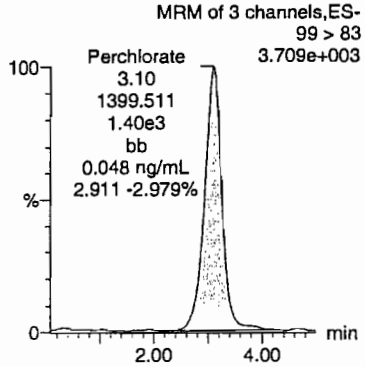
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

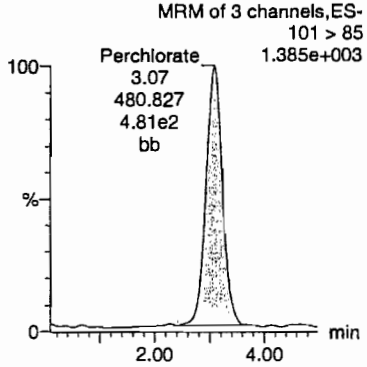
Name: per0316037a
Date: 16-Mar-2010
Time: 20:49:48
ID: WCL100309-07CRI
Vial: 1:2,B

Pass
03-17-10

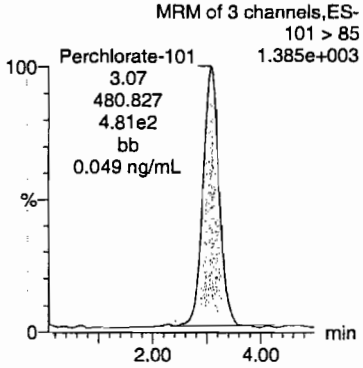
Perchlorate



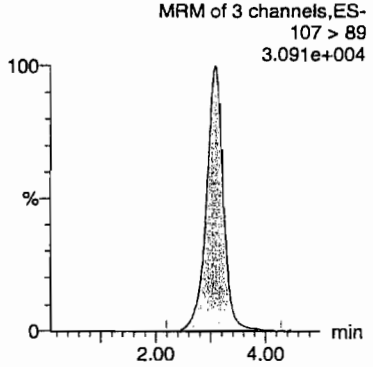
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.10	1399.511	1399.511	bb			0.0479	95.82	-4.18	130.048	2.91
WCL100309-07CRI	Perchlorate-101	101 > 85	3.07	480.827	480.827	bb			0.0495	98.91	-1.09	127.669	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.07	11129.948	11129.948	bb			0.4658	93.16	-6.84	1249.9...	

MATT
3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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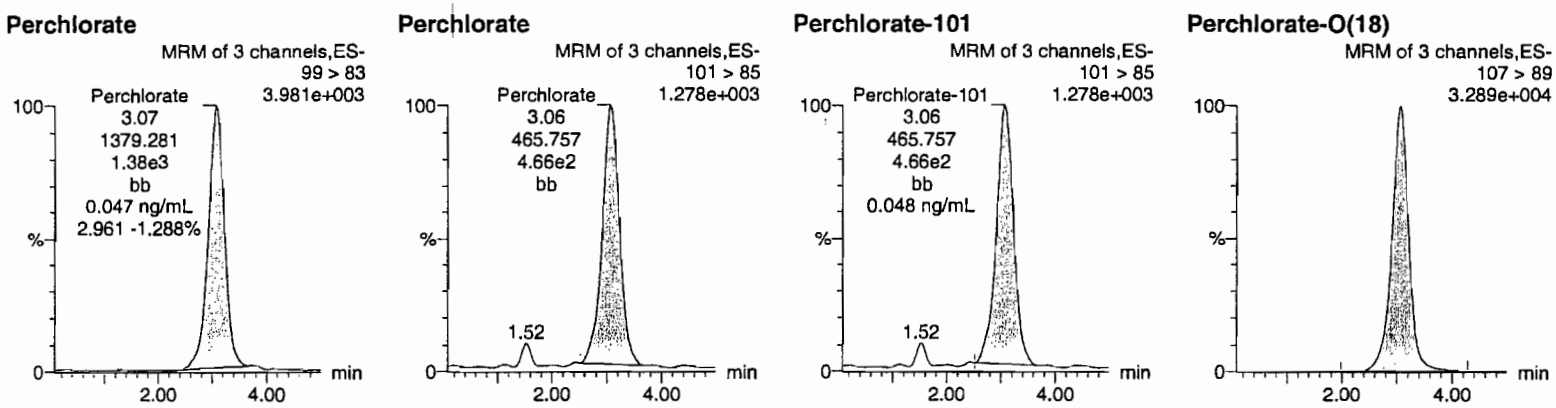
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316050a
Date: 16-Mar-2010
Time: 22:34:27
ID: WCL100309-07CRI
Vial: 1:2,B

Pers
03-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.07	1379.281	1379.281	bb			0.0472	94.44	-5.56	338.835	2.96
WCL100309-07CRI	Perchlorate-101	101 > 85	3.06	465.757	465.757	bb			0.0479	95.81	-4.19	84.114	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.06	11766.454	11766.454	bb			0.4924	98.49	-1.51	940.442	

MM 3/18/10

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

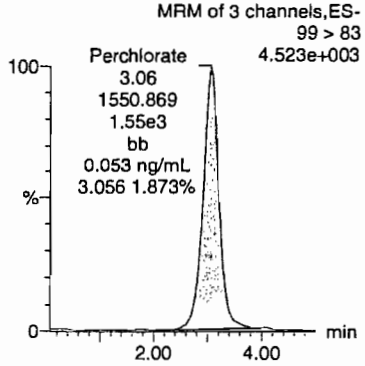
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

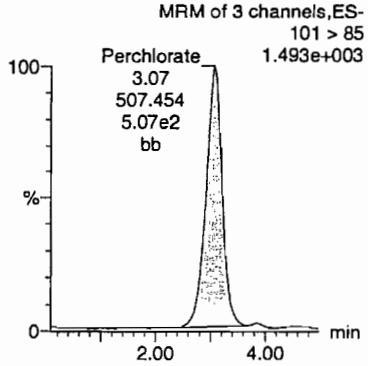
Name: per0316061a
Date: 17-Mar-2010
Time: 00:03:05
ID: WCL100309-07CRI
Vial: 1:2,B

Pass
03·17·10

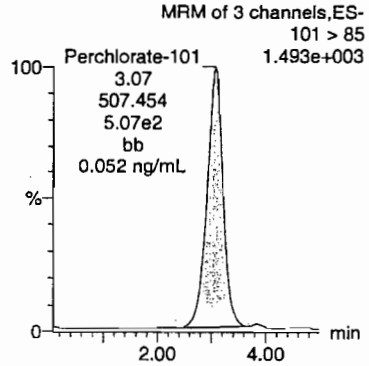
Perchlorate



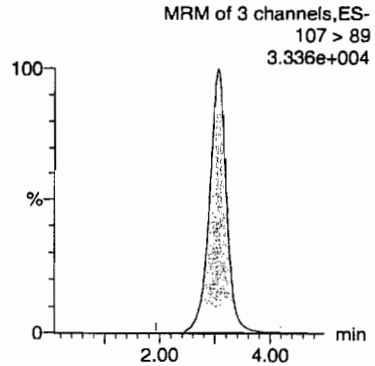
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.06	1550.869	1550.869	bb			0.0531	106.19	6.19	242.285	3.06
WCL100309-07CRI	Perchlorate-101	101 > 85	3.07	507.454	507.454	bb			0.0522	104.38	4.38	54.514	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.05	11953.760	11953.760	bb			0.5003	100.05	0.05	738.699	

MAT
3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

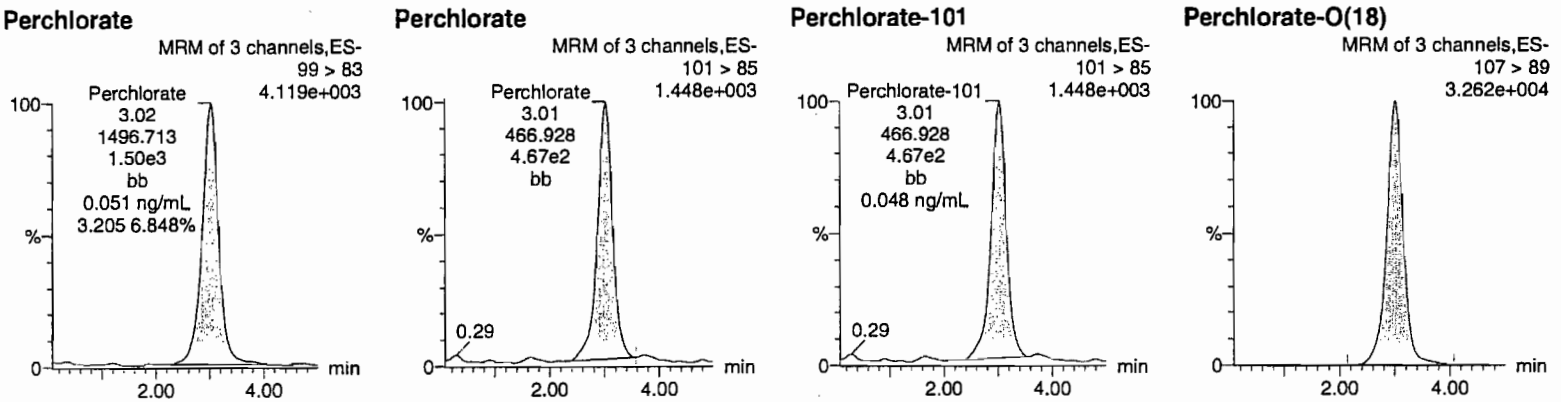
Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Pass
GW
03-17-10

Name: per0316074a
Date: 17-Mar-2010
Time: 01:47:55
ID: WCL100309-07CRI
Vial: 1:2,B



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.02	1496.713	1496.713	bb			0.0512	102.48	2.48	601.276	3.21
WCL100309-07CRI	Perchlorate-101	101 > 85	3.01	466.928	466.928	bb			0.0480	96.05	-3.95	134.539	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.01	11511.645	11511.645	bb			0.4818	96.35	-3.65	2957.1...	

MW
3/18/10

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

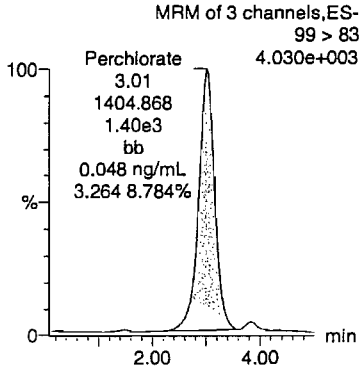
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

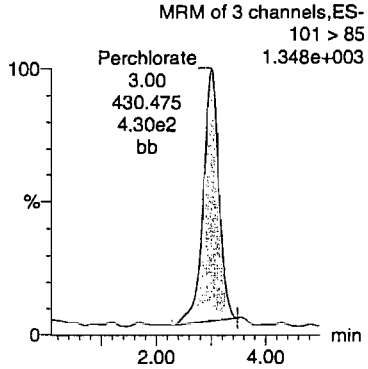
Name: per0316087a
Date: 17-Mar-2010
Time: 03:32:49
ID: WCL100309-07CRI
Vial: 1:2,B

Pass
03-17-10

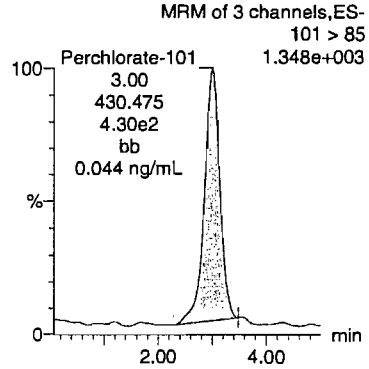
Perchlorate



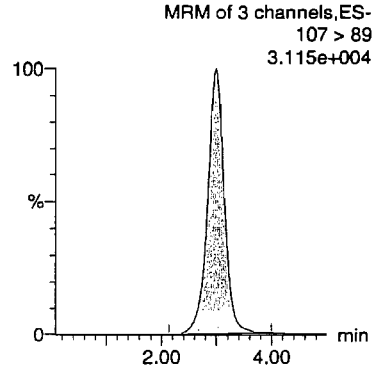
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.01	1404.868	1404.868	bb			0.0481	96.19	-3.81	960.501	3.26
WCL100309-07CRI	Perchlorate-101	101 > 85	3.00	430.475	430.475	bb			0.0443	88.55	-11.45	188.319	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	3.00	10936.855	10936.855	bb			0.4577	91.54	-8.46	1135.0...	

MMT
3/18/10

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

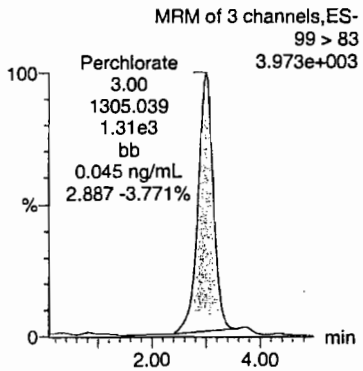
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

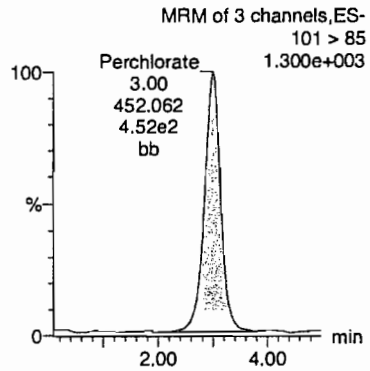
Name: per0316100a
Date: 17-Mar-2010
Time: 05:17:53
ID: WCL100309-07CRI
Vial: 1:2,B

PWD
03-17-10

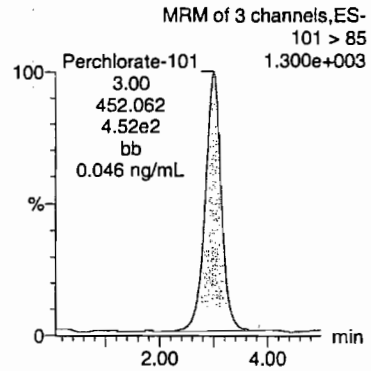
Perchlorate



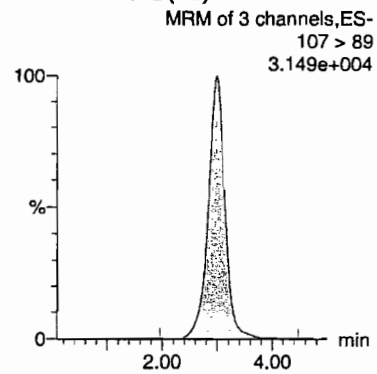
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	3.00	1305.039	1305.039	bb			0.0447	89.36	-10.64	331.453	2.89
WCL100309-07CRI	Perchlorate-101	101 > 85	3.00	452.062	452.062	bb			0.0465	92.99	-7.01	190.837	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.99	11128.553	11128.553	bb			0.4657	93.15	-6.85	6365.0...	

MM 3/18/10

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

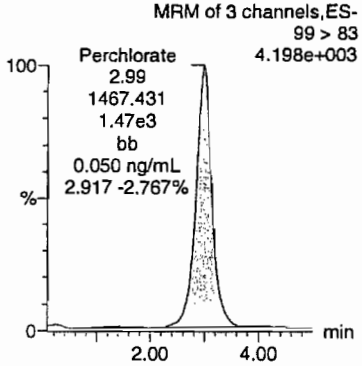
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

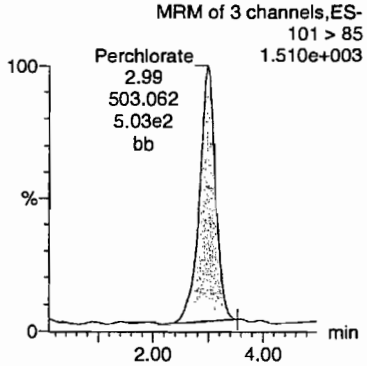
Name: per0316113a
Date: 17-Mar-2010
Time: 07:03:49
ID: WCL100309-07CRI
Vial: 1:2,B

PWO
03-17-10

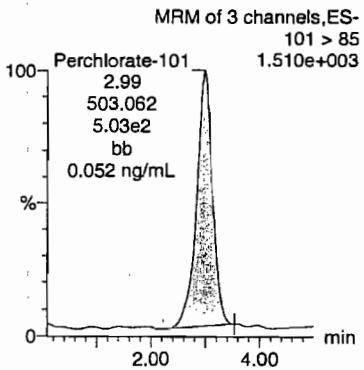
Perchlorate



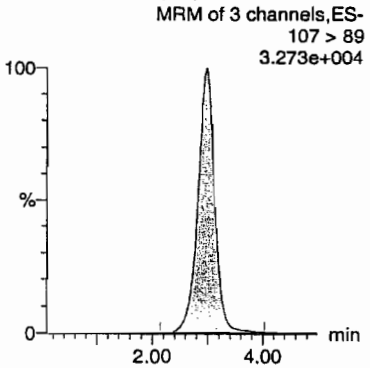
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	2.99	1467.431	1467.431	bb			0.0502	100.47	0.47	231.106	2.92
WCL100309-07CRI	Perchlorate-101	101 > 85	2.99	503.062	503.062	bb			0.0517	103.48	3.48	236.042	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	2.97	11421.953	11421.953	bb			0.4780	95.60	-4.40	5243.2...	

MWP
3/18/10

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: WATER

Extraction Batch ID: 962135

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 08-MAR-10

GEL Job No (SDG): 10-2198-1

GEL Sample ID: 1202063757

Date Filtered: 08-MAR-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	17-MAR-10 03:40	per0316088a
	Perchlorate Isotope Ratio						1	17-MAR-10 03:40	per0316088a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-MAR-10 03:40	per0316088a
	Perchlorate-O(18)			0.478	ug/L		1	17-MAR-10 03:40	per0316088a

^ 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\per031610a.qld

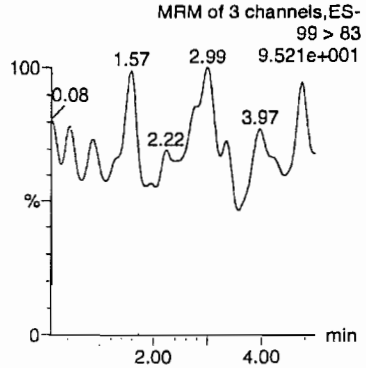
Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316088a
Date: 17-Mar-2010
Time: 03:40:53
ID: 1202063757
Vial: 2:5,A

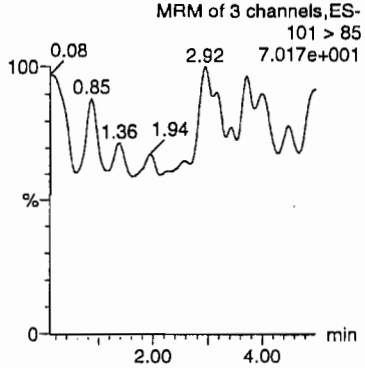
|LANL|962136|LZQ|MB|1|

WJ 03-17-10

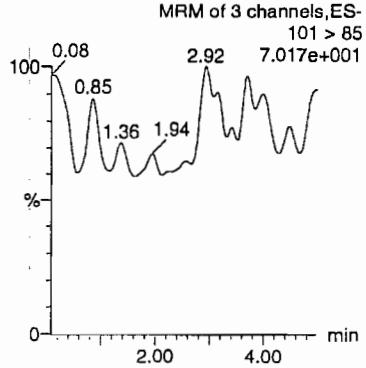
Perchlorate



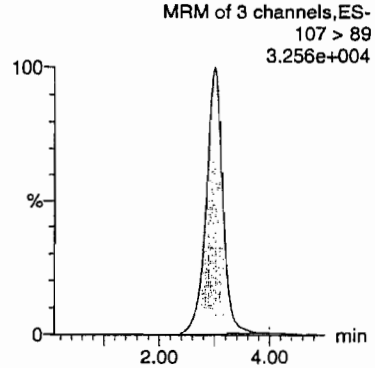
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202063757	Perchlorate	99 > 83											0.00
1202063757	Perchlorate-101	101 > 85											
1202063757	Perchlorate-O(18)	107 > 89	3.00	11417.856	11417.856	bb			0.4778	95.57	-4.43	1583.4...	

MM 3/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 962135

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 08-MAR-10

GEL Job No (SDG): 10-2198-1

GEL Sample ID: 1202063758

Date Filtered: 08-MAR-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	0.329	ug/L		1	17-MAR-10 03:49	per0316089a
	Perchlorate Isotope Ratio			2.98			1	17-MAR-10 03:49	per0316089a
14797-73-0	Perchlorate-101	.05	.2	0.331	ug/L		1	17-MAR-10 03:49	per0316089a
	Perchlorate-O(18)			0.465	ug/L		1	17-MAR-10 03:49	per0316089a

^ 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\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

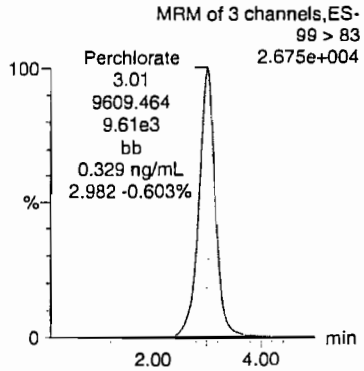
NEED DER: HIGH LCS BUT ONLY SMALL HITS IN SAMPLES < MDL.

Name: per0316089a
Date: 17-Mar-2010
Time: 03:49:07
ID: 1202063758
Vial: 2:5,B

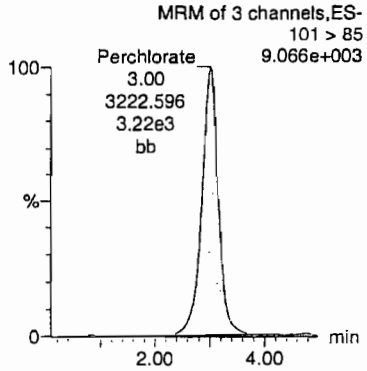
| LANL | 962136 | BLQ | LCS | 1 |

WWD 03-17-10

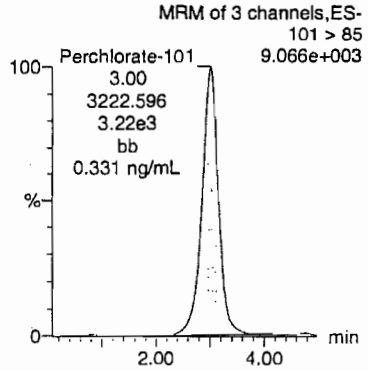
Perchlorate



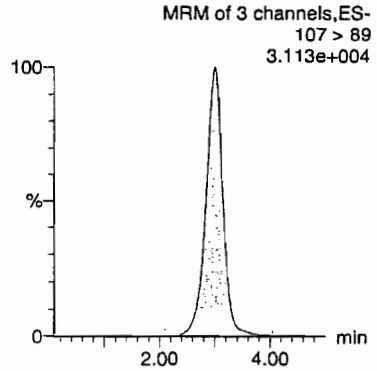
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202063758	Perchlorate	99 > 83	3.01	9609.464	9609.464	bb			0.3290	164.49	64.49	600.875	2.98
1202063758	Perchlorate-101	101 > 85	3.00	3222.596	3222.596	bb			0.3314	165.72	65.72	674.917	
1202063758	Perchlorate-O(18)	107 > 89	3.00	11116.203	11116.203	bb			0.4652	93.04	-6.96	4993.7...	

MM 3/18/10

$$\frac{9609.464}{29201.9} = 0.3290$$

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: 962135 Verified by:
Analyst: Jareth Shirley
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)
1202063757 MB	08-MAR-2010 14:28:00	10	10	1
1202063758 LCS	08-MAR-2010 14:28:00	10	10	1
248375001	08-MAR-2010 14:28:00	10	10	1
248375002	08-MAR-2010 14:28:00	10	10	1
248407001	08-MAR-2010 14:28:00	10	10	1
1202063759 MS (248407001)	08-MAR-2010 14:28:00	10	10	1
1202063760 MSD (248407001)	08-MAR-2010 14:28:00	10	10	1
248419001	08-MAR-2010 14:28:00	10	10	1
248419002	08-MAR-2010 14:28:00	10	10	1
248516001	08-MAR-2010 14:28:00	10	10	1
248516002	08-MAR-2010 14:28:00	10	10	1
248518001	08-MAR-2010 14:28:00	10	10	1
248523001	08-MAR-2010 14:28:00	10	10	1
248533001	08-MAR-2010 14:28:00	10	10	1
248535001	08-MAR-2010 14:28:00	10	10	1
248535002	08-MAR-2010 14:28:00	10	10	1
248551001	08-MAR-2010 14:28:00	10	10	1
248551002	08-MAR-2010 14:28:00	10	10	1
248638001	08-MAR-2010 14:28:00	10	10	1
248649001	08-MAR-2010 14:28:00	10	10	1
248649002	08-MAR-2010 14:28:00	10	10	1
248685001	08-MAR-2010 14:28:00	10	10	1
248685002	08-MAR-2010 14:28:00	10	10	1
1202063761 ICS	08-MAR-2010 14:28:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202063761	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
LCS	1202063758	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MS	1202063759	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MSD	1202063760	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting cartridges used: 100217-1-H & 100224-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/16/10
Extr. Injection Volume: 20uL
Sequence Number: per031610a
Initial Calibration Date: 03/16/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1271949
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: [illegible]
Date: 3/18/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0316001a	IPB001	CWW	3/16/2010 16:00			1		USE	B
per0316002a	IPB001	CWW	3/16/2010 16:08			1		USE	B
per0316003a	WCLICAL-01	CWW	3/16/2010 16:16			1		USE	I
per0316004a	WCLICAL-02	CWW	3/16/2010 16:24			1		USE	I
per0316005a	WCLICAL-03	CWW	3/16/2010 16:32			1		USE	I
per0316006a	WCLICAL-04	CWW	3/16/2010 16:40			1		USE	I
per0316007a	WCLICAL-05	CWW	3/16/2010 16:48			1		USE	I
per0316008a	IPB002	CWW	3/16/2010 16:56			1		USE	B
per0316009a	WCLICV	CWW	3/16/2010 17:04			1		USE	C
per0316010a	IPB003	CWW	3/16/2010 17:12			1		USE	B
per0316011a	WCLCRI	CWW	3/16/2010 17:20			1		USE	C
per0316012a	248633001	CWW	3/16/2010 17:28	962119	LPTP10-S1	5000	PTQA	USE	S
per0316013a	1202063730	CWW	3/16/2010 17:36	962119	LPTP10-S2	5000	PTQA	USE	S
per0316014a	248065008	CWW	3/16/2010 17:44	958968	10-2086	1		USE	S
per0316015a	IPB004	CWW	3/16/2010 17:52			1		USE	B
per0316016a	1202054236	CWW	3/16/2010 18:00	957953	10-1976-1	1	LANL	USE	S
per0316017a	1202054237	CWW	3/16/2010 18:09	957953	10-1976-1	1	LANL	USE	S
per0316018a	1202054240	CWW	3/16/2010 18:17	957953	10-1976-1	1	LANL	USE	S
per0316019a	247781001	CWW	3/16/2010 18:25	957953	10-1976-1	1	LANL	USE	S
per0316020a	1202054238	CWW	3/16/2010 18:33	957953	10-1976-1	1	LANL	USE	S
per0316021a	1202054239	CWW	3/16/2010 18:41	957953	10-1976-1	1	LANL	USE	S
per0316022a	WCLCCV	CWW	3/16/2010 18:49			1		USE	C
per0316023a	IPB005	CWW	3/16/2010 18:57			1		USE	B
per0316024a	WCLCRI	CWW	3/16/2010 19:05			1		USE	C
per0316025a	247781002	CWW	3/16/2010 19:13	957953	10-1976-1	1	LANL	USE	S
per0316026a	247781003	CWW	3/16/2010 19:21	957953	10-1976-1	1	LANL	USE	S
per0316027a	IPB006	CWW	3/16/2010 19:29			1		USE	B
per0316028a	1202063732	CWW	3/16/2010 19:37	962121	10-2256	1	LANL	USE	S
per0316029a	1202063733	CWW	3/16/2010 19:45	962121	10-2256	1	LANL	USE	S

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per0316030a	1202063736	CWW	3/16/2010 19:53	962121	10-2256	1	LANL	USE	S
per0316031a	248666001	CWW	3/16/2010 20:01	962121	10-2256	1	LANL	USE	S
per0316032a	1202063734	CWW	3/16/2010 20:09	962121	10-2256	1	LANL	USE	S
per0316033a	1202063735	CWW	3/16/2010 20:17	962121	10-2256	1	LANL	USE	S
per0316034a	248666002	CWW	3/16/2010 20:25	962121	10-2256	1	LANL	USE	S
per0316035a	WCLCCV	CWW	3/16/2010 20:33			1		USE	C
per0316036a	IPB007	CWW	3/16/2010 20:41			1		USE	B
per0316037a	WCLCRI	CWW	3/16/2010 20:49			1		USE	C
per0316038a	248666003	CWW	3/16/2010 20:57	962121	10-2256	1	LANL	USE	S
per0316039a	248666004	CWW	3/16/2010 21:05	962121	10-2256	1	LANL	USE	S
per0316040a	248666005	CWW	3/16/2010 21:13	962121	10-2256	1	LANL	USE	S
per0316041a	248666006	CWW	3/16/2010 21:22	962121	10-2256	1	LANL	USE	S
per0316042a	248666007	CWW	3/16/2010 21:30	962121	10-2256	1	LANL	USE	S
per0316043a	248666008	CWW	3/16/2010 21:38	962121	10-2256	1	LANL	USE	S
per0316044a	248666009	CWW	3/16/2010 21:46	962121	10-2256	1	LANL	USE	S
per0316045a	248666010	CWW	3/16/2010 21:54	962121	10-2256	1	LANL	USE	S
per0316046a	248666011	CWW	3/16/2010 22:02	962121	10-2256	1	LANL	USE	S
per0316047a	248666012	CWW	3/16/2010 22:10	962121	10-2256	1	LANL	USE	S
per0316048a	WCLCCV	CWW	3/16/2010 22:18			1		USE	C
per0316049a	IPB008	CWW	3/16/2010 22:26			1		USE	B
per0316050a	WCLCRI	CWW	3/16/2010 22:34			1		USE	C
per0316051a	248666013	CWW	3/16/2010 22:42	962121	10-2256	1	LANL	USE	S
per0316052a	248666014	CWW	3/16/2010 22:50	962121	10-2256	1	LANL	USE	S
per0316053a	248666015	CWW	3/16/2010 22:58	962121	10-2256	1	LANL	USE	S
per0316054a	248666016	CWW	3/16/2010 23:06	962121	10-2256	1	LANL	USE	S
per0316055a	248666017	CWW	3/16/2010 23:14	962121	10-2256	1	LANL	USE	S
per0316056a	248666018	CWW	3/16/2010 23:22	962121	10-2256	1	LANL	USE	S
per0316057a	248666019	CWW	3/16/2010 23:30	962121	10-2256	1	LANL	USE	S
per0316058a	248666020	CWW	3/16/2010 23:38	962121	10-2256	1	LANL	USE	S
per0316059a	WCLCCV	CWW	3/16/2010 23:47			1		USE	C
per0316060a	IPB009	CWW	3/16/2010 23:55			1		USE	B
per0316061a	WCLCRI	CWW	3/17/2010 0:03			1		USE	C
per0316062a	1202063737	CWW	3/17/2010 0:11	962124	VARIOUS	1	LANL	USE	S
per0316063a	1202063738	CWW	3/17/2010 0:19	962124	VARIOUS	1	LANL	USE	S
per0316064a	1202063741	CWW	3/17/2010 0:27	962124	VARIOUS	1	LANL	USE	S
per0316065a	248250001	CWW	3/17/2010 0:35	962124	10-2141	1	LANL	USE	S
per0316066a	248250002	CWW	3/17/2010 0:43	962124	10-2141	1	LANL	DUSE-DL	S

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per0316067a	1202063739	CWW	3/17/2010 0:51	962124	10-2141	1	LANL	DUSE-DL	S
per0316068a	1202063740	CWW	3/17/2010 0:59	962124	10-2141	1	LANL	DUSE-DL	S
per0316069a	248250003	CWW	3/17/2010 1:07	962124	10-2141	1	LANL	DUSE-DL	S
per0316070a	248250004	CWW	3/17/2010 1:15	962124	10-2141	1	LANL	DUSE-DL	S
per0316071a	248386003	CWW	3/17/2010 1:23	962124	10-2164	1	LANL	DUSE-RA	S
per0316072a	WCLCCV	CWW	3/17/2010 1:31			1		USE	C
per0316073a	IPB010	CWW	3/17/2010 1:39			1		USE	B
per0316074a	WCLCRI	CWW	3/17/2010 1:47			1		USE	C
per0316075a	248386004	CWW	3/17/2010 1:55	962124	10-2164	1	LANL	USE	S
per0316076a	248549001	CWW	3/17/2010 2:04	962124	10-2214	1	LANL	USE	S
per0316077a	248549002	CWW	3/17/2010 2:12	962124	10-2214	1	LANL	USE	S
per0316078a	248549003	CWW	3/17/2010 2:20	962124	10-2214	1	LANL	USE	S
per0316079a	248549004	CWW	3/17/2010 2:28	962124	10-2214	1	LANL	USE	S
per0316080a	248549005	CWW	3/17/2010 2:36	962124	10-2214	1	LANL	USE	S
per0316081a	248549006	CWW	3/17/2010 2:44	962124	10-2214	1	LANL	USE	S
per0316082a	248682001	CWW	3/17/2010 2:52	962124	10-2259	1	LANL	USE	S
per0316083a	248682002	CWW	3/17/2010 3:00	962124	10-2259	1	LANL	USE	S
per0316084a	248682003	CWW	3/17/2010 3:08	962124	10-2259	1	LANL	USE	S
per0316085a	WCLCCV	CWW	3/17/2010 3:16			1		USE	C
per0316086a	IPB011	CWW	3/17/2010 3:24			1		USE	B
per0316087a	WCLCRI	CWW	3/17/2010 3:32			1		USE	C
per0316088a	1202063757	CWW	3/17/2010 3:40	962136	VARIOUS	1	LANL	USE	S
per0316089a	1202063758	CWW	3/17/2010 3:49	962136	VARIOUS	1	LANL	USE	S
per0316090a	1202063761	CWW	3/17/2010 3:57	962136	VARIOUS	1	LANL	USE	S
per0316091a	248375001	CWW	3/17/2010 4:05	962136	10-2155-1	1	LANL	USE	S
per0316092a	248375002	CWW	3/17/2010 4:13	962136	10-2155-1	1	LANL	USE	S
per0316093a	248407001	CWW	3/17/2010 4:21	962136	10-2188	1	LANL	USE	S
per0316094a	1202063759	CWW	3/17/2010 4:29	962136	10-2188	1	LANL	USE	S
per0316095a	1202063760	CWW	3/17/2010 4:37	962136	10-2188	1	LANL	USE	S
per0316096a	248419001	CWW	3/17/2010 4:45	962136	10-2191-1	1	LANL	USE	S
per0316097a	248419002	CWW	3/17/2010 4:53	962136	10-2191-1	1	LANL	USE	S
per0316098a	WCLCCV	CWW	3/17/2010 5:01			1		USE	C
per0316099a	IPB012	CWW	3/17/2010 5:09			1		USE	B
per0316100a	WCLCRI	CWW	3/17/2010 5:17			1		USE	C
per0316101a	248516001	CWW	3/17/2010 5:25	962136	10-2197-1	1	LANL	USE	S
per0316102a	248516002	CWW	3/17/2010 5:34	962136	10-2197-1	1	LANL	USE	S
per0316103a	248518001	CWW	3/17/2010 5:42	962136	10-2198-1	1	LANL	USE	S

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per0316104a	248523001	CWW	3/17/2010 5:50	962136	10-2203	1	LANL	USE	S
per0316105a	248533001	CWW	3/17/2010 5:58	962136	10-2211-1	1	LANL	USE	S
per0316106a	248535001	CWW	3/17/2010 6:07	962136	10-2208-1	1	LANL	USE	S
per0316107a	248535002	CWW	3/17/2010 6:15	962136	10-2208-1	1	LANL	USE	S
per0316108a	248551001	CWW	3/17/2010 6:23	962136	10-2214-1	1	LANL	USE	S
per0316109a	248551002	CWW	3/17/2010 6:31	962136	10-2214-1	1	LANL	USE	S
per0316110a	248638001	CWW	3/17/2010 6:39	962136	10-2234-1	1	LANL	USE	S
per0316111a	WCLCCV	CWW	3/17/2010 6:47			1		USE	C
per0316112a	IPB013	CWW	3/17/2010 6:55			1		USE	B
per0316113a	WCLCRI	CWW	3/17/2010 7:03			1		USE	C
per0316114a	248649001	CWW	3/17/2010 7:11	962136	10-2240-1	1	LANL	USE	S
per0316115a	248649002	CWW	3/17/2010 7:20	962136	10-2240-1	1	LANL	USE	S
per0316116a	248685001	CWW	3/17/2010 7:28	962136	10-2259-1	1	LANL	USE	S
per0316117a	248685002	CWW	3/17/2010 7:36	962136	10-2259-1	1	LANL	USE	S
per0316118a	248250002	CWW	3/17/2010 7:44	962124	10-2141	2	LANL	USE	S
per0316119a	1202063739	CWW	3/17/2010 7:52	962124	10-2141	2	LANL	USE	S
per0316120a	1202063740	CWW	3/17/2010 8:00	962124	10-2141	2	LANL	USE	S
per0316121a	248250003	CWW	3/17/2010 8:08	962124	10-2141	100	LANL	USE	S
per0316122a	248250004	CWW	3/17/2010 8:16	962124	10-2141	50	LANL	USE	S
per0316123a	248386003	CWW	3/17/2010 8:24	962124	10-2164	1	LANL	USE	S
per0316124a	WCLCCV	CWW	3/17/2010 8:32			1		USE	C
per0316125a	IPB014	CWW	3/17/2010 8:40			1		USE	B
per0316126a	WCLCRI	CWW	3/17/2010 8:48			1		USE	C

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

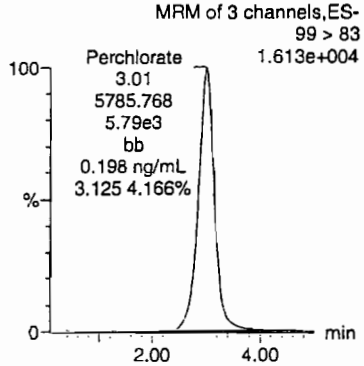
Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316094a
Date: 17-Mar-2010
Time: 04:29:20
ID: 1202063759
Vial: 2:6,A

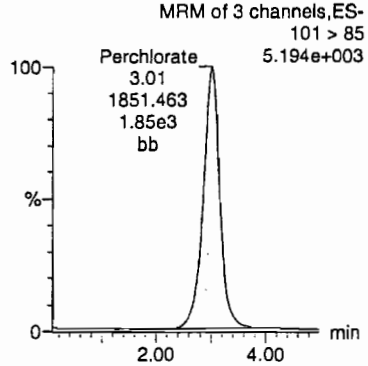
|LANL|962136|LZQ|MS|1|

03-17-10

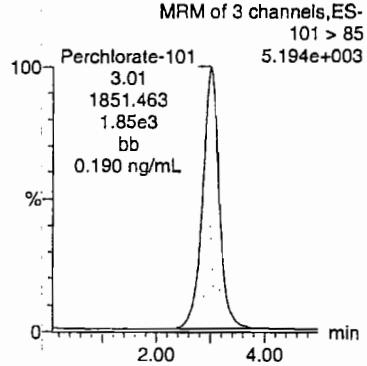
Perchlorate



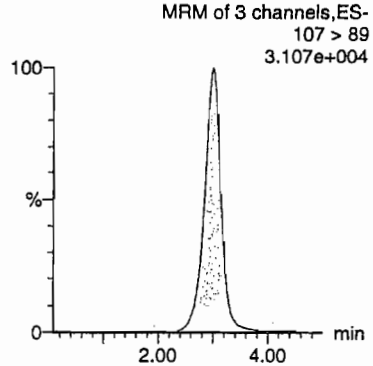
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202063759	Perchlorate	99 > 83	3.01	5785.768	5785.768	bb			0.1981	99.04	-0.96	551.000	3.12
1202063759	Perchlorate-101	101 > 85	3.01	1851.463	1851.463	bb			0.1904	95.21	-4.79	926.372	
1202063759	Perchlorate-O(18)	107 > 89	3.00	11049.848	11049.848	bb			0.4624	92.49	-7.51	2110.9...	

MAT 3/18/10

$\frac{5785.768}{29209.9} = 0.1981$

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

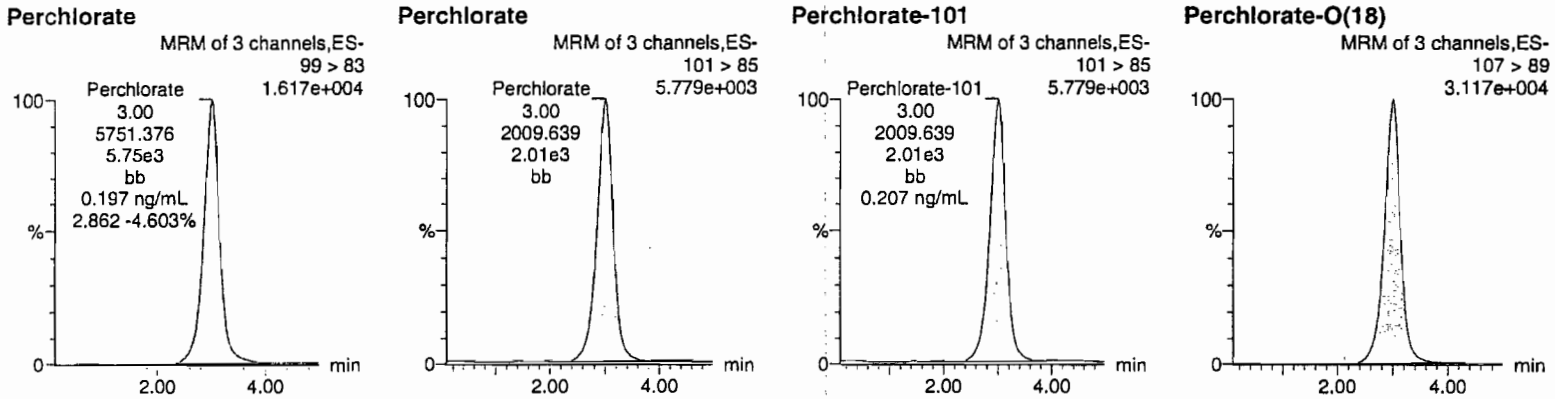
Dataset: C:\MassLynx\Perchlorate.PRO\per031610a.qld

Last Altered: Wednesday, March 17, 2010 9:01:09 AM Eastern Standard Time
Printed: Wednesday, March 17, 2010 9:41:10 AM Eastern Standard Time

Name: per0316095a
Date: 17-Mar-2010
Time: 04:37:24
ID: 1202063760
Vial: 2:6,B

|LANL|962136|L2L2|MSD|1|

CWJ 03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202063760	Perchlorate	99 > 83	3.00	5751.376	5751.376	bb			0.1969	98.45	-1.55	125.154	2.86
1202063760	Perchlorate-101	101 > 85	3.00	2009.639	2009.639	bb			0.2067	103.35	3.35	743.184	
1202063760	Perchlorate-O(18)	107 > 89	2.99	10870.262	10870.262	bb			0.4549	90.99	-9.01	3201.8...	

3/18/10

$$\frac{5751.376}{2009.639} = 2.8619$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
17-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 6850 Modified	Liquid	LANL
Batch ID:	**Sample Numbers:**		
962136	See Below		

Potentially affected work order(s)(SDG): 248375(10-2155-1),248407(10-2188),248419(10-2191-1),248516(10-2197-1),248518(10-2198-1),248523(10-2203),248533(10-2211-1),248535(10-2208-1),248551(10-2214-1),248638(10-2234-1),248649(10-2240-1),248685(10-2259-1)

Application Issues:

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. High recoveries were observed for Perchlorate and Perchlorate-101 in 1202063758 (LCS). The recoveries were 164% and 166%, respectively. The acceptance range is 85-115%.	1. The high recovery may be the result of a spiking error at the preparation step. Note the recoveries for the ICS and matrix spikes were all acceptable. Since the detections observed in the associated samples were less than the MDL, samples do not need to be re-extracted. Data will be reported.

Originator's Name:

Charles Wilson 17-MAR-10

Data Validator/Group Leader:

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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 10-2198

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:	961033
Prep Batch Number:	961016

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
248517001	RE36-10-8292
1202061319	Method Blank (MB)
1202061320	Laboratory Control Sample (LCS)
1202061321	248526001(RE36-10-8466) Matrix Spike (MS)
1202061322	248526001(RE36-10-8466) 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.

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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 did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the data package for a list of recoveries. The MS and MSD had passing recoveries for these analytes. The data are reported. Please see data exception report 822434.

QC Sample Designation
Client sample 248526001 (RE36-10-8466) from SDG 10-2202 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD 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
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

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Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 248526001 (RE36-10-8466) from SDG 10-2202 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recovered TATB at 161%. The limits are 29-155%. The LCS and the MSD had passing criteria for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported. Please see data exception report 822434.

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
The internal standards were not added to the secondary analyte extracts.

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Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
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 822434 was generated for this SDG.

The LCS did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the data package for a list of recoveries. The MS and MSD had passing recoveries for these analytes. The data are reported.

The MS recovered TATB at 161%. The limits are 29-155%. The LCS and the MSD had passing criteria for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was 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 K Maier **Date:** 04/30/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8292

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 248517001

Sample Amount 2

Moisture: 22.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415071.wiff

Date Analyzed: 16-APR-10 16:24

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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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8292

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 248517001

Sample Amount 2

Moisture: 22.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090053.wiff

Date Analyzed: 09-APR-10 20:51

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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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2198

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248517001	RE36–10–8292	92.8	70 – 144	
248517001	RE36–10–8292	104	70 – 144	
1202061319	MB for batch 961016	104	70 – 144	
1202061319	MB for batch 961016	108	70 – 144	
1202061320	LCS for batch 961016	83.6	70 – 144	
1202061320	LCS for batch 961016	99.2	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) 10-2198

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL LCS ID: 1202061320

GEL LCSDUP ID:

Analysis Date/Time: 16-APR-10 14:41

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
2,4,6-Trinitrotoluene	5000	4030	80.6								73 – 149
2,4-Dinitrotoluene	5000	4770	95.4								87 – 137
2,6-Dinitrotoluene	5000	4230	84.6	*							89 – 120
2-Amino-4,6-dinitrotoluene	5000	4000	80	*							90 – 130
4-Amino-2,6-dinitrotoluene	5000	3920	78.4	*							84 – 130
HMX	5000	4990	99.8								58 – 138
Nitrobenzene	5000	4530	90.6								71 – 122
1,3,5-Trinitrobenzene	5000	3530	70.6								69 – 126
PETN	5000	5320	106								64 – 137
RDX	5000	6110	122								81 – 137
Tetryl	5000	204	4.08	*							51 – 112
m-Dinitrobenzene	5000	5290	106								83 – 122
m-Nitrotoluene	5000	4880	97.6								73 – 118
o-Nitrotoluene	5000	5170	103								72 – 119
p-Nitrotoluene	5000	4920	98.4								67 – 131

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

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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) 10-2198

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL LCS ID: 1202061320

GEL LCSDUP ID:

Analysis Date/Time: 09-APR-10 19:01

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	4790	95.8					52 – 114
2,6-Diamino-4-nitrotoluene	5000	5090	102					64 – 122
3,5-Dinitroaniline	5000	4980	99.6					70 – 127
tris(o-cresyl) phosphate	5000	4920	98.4					84 – 119
TATB	5000	4710	94.2					28 – 162

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

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2198

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL Spike ID: 1202061321

GEL SpikeDup ID: 1202061322

Analysis Date/Time: 20-APR-10 22:57

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
4-Amino-2,6-dinitrotoluene	5000	0	5710	114	5680	114	.527	30	72 – 143
HMX	5000	0	4820	96.4	5020	100	4.07	30	51 – 144
Nitrobenzene	5000	0	4510	90.2	4660	93.2	3.27	30	70 – 122
1,3,5-Trinitrobenzene	5000	0	5520	110	5010	100	9.69	30	50 – 140
2-Amino-4,6-dinitrotoluene	5000	0	5360	107	5350	107	.187	30	85 – 137
2,6-Dinitrotoluene	5000	13.4	4930	98.3	4920	98.1	.203	30	90 – 118
2,4-Dinitrotoluene	5000	0	5500	110	5010	100	9.32	30	86 – 135
2,4,6-Trinitrotoluene	5000	0	5190	104	4810	96.2	7.6	30	76 – 144
PETN	5000	0	5400	108	5020	100	7.29	30	60 – 140
RDX	5000	0	5880	118	4980	99.6	16.6	30	59 – 152
Tetryl	5000	0	5010	100	4160	83.2	18.5	30	36 – 124
m-Dinitrobenzene	5000	2.76	5350	107	4930	98.5	8.17	30	85 – 118
m-Nitrotoluene	5000	0	4210	84.2	4500	90	6.66	30	70 – 120
o-Nitrotoluene	5000	0	4710	94.2	4680	93.6	.639	30	69 – 123
p-Nitrotoluene	5000	0	4360	87.2	4640	92.8	6.22	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: RE36-10-8466

Lab Code: GEL

GEL Job No (SDG) 10-2198

Extract Batch Code: 961016

Date Extracted: 10-MAR-10

GEL Spike ID: 1202061321

GEL SpikeDup ID: 1202061322

Analysis Date/Time: 10-APR-10 01:02

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	4070	81.4	3670	73.4	10.3	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	4340	86.8	4330	86.6	.231	30	55 - 130
TATB	5000	0	8040	161 *	7080	142	12.7	30	29 - 155
3,5-Dinitroaniline	5000	0	4040	80.8	4330	86.6	6.93	30	73 - 129
tris(o-cresyl) phosphate	5000	0	5170	103	5100	102	1.36	30	72 - 127

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

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 15-APR-10 10:07

GEL Data File: EXP0415001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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
2,4,6-Trinitrotoluene	0	0

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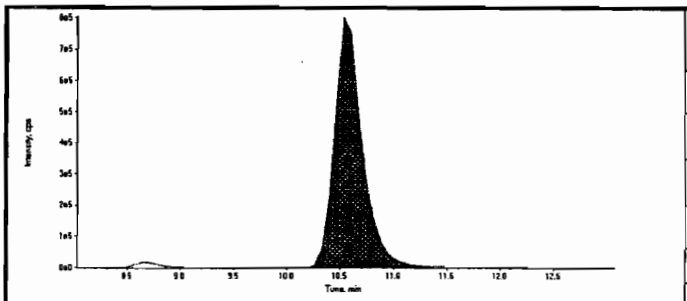
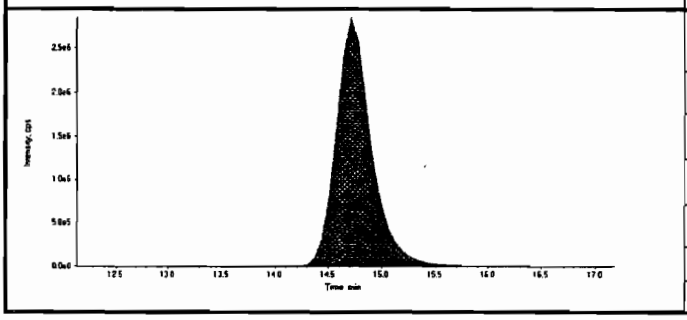
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

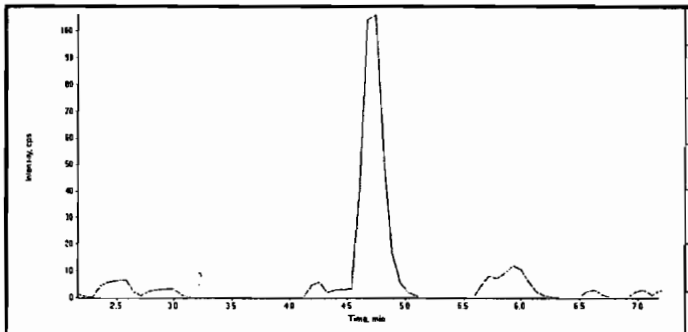
Data File	EXP0415001.wiff	**Acquisition Date**	4/15/2010 10:07:41 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



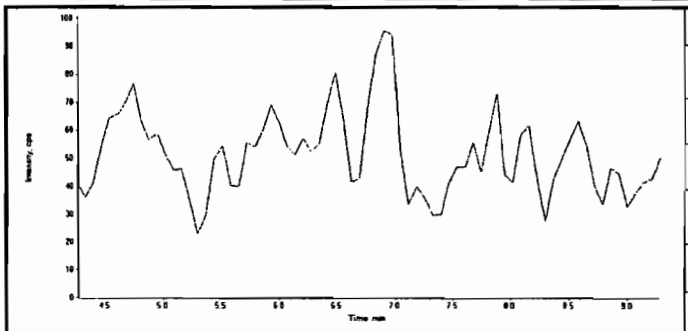
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lan 4/23/10 [illegible] 04/23/10

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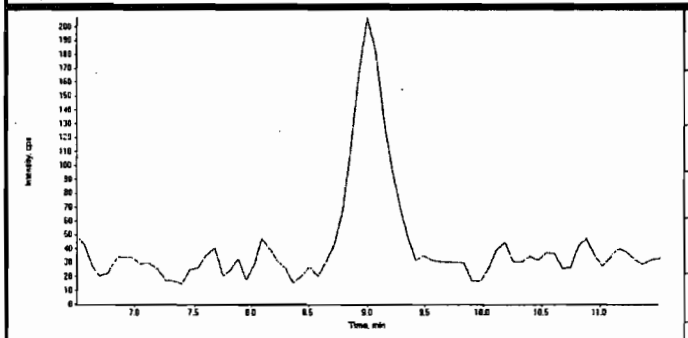
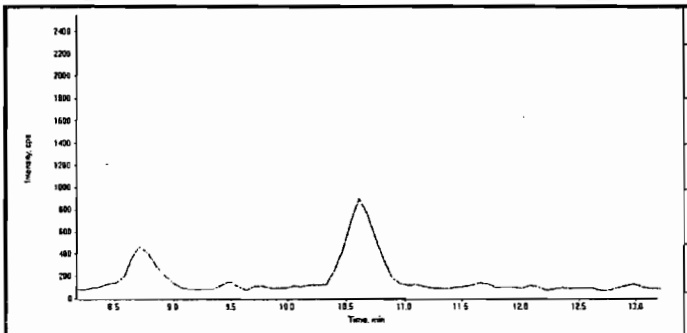
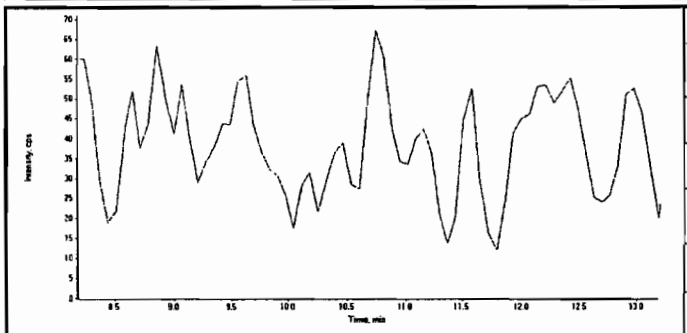
Data File	EXP0415001.wiff	**Acquisition Date**	4/15/2010 10:07:41 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown



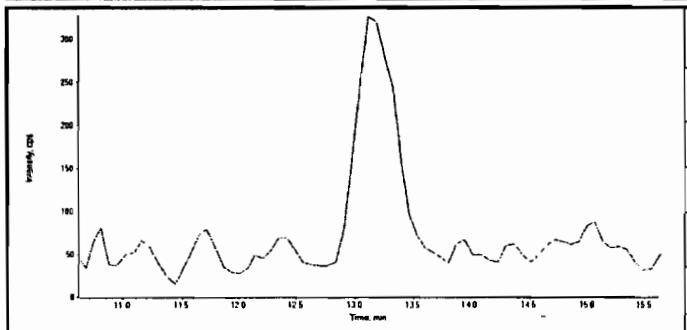
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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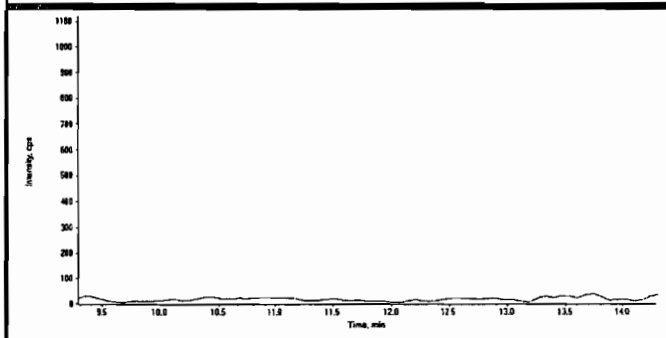
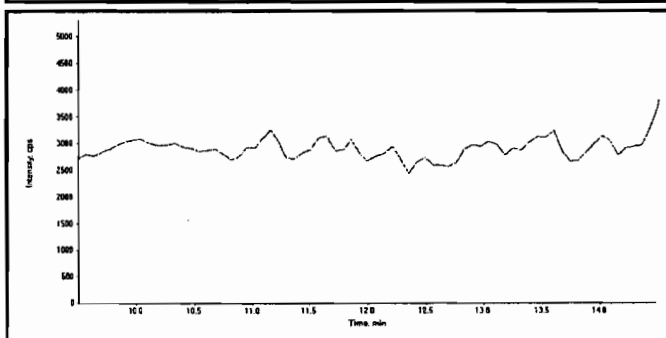
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

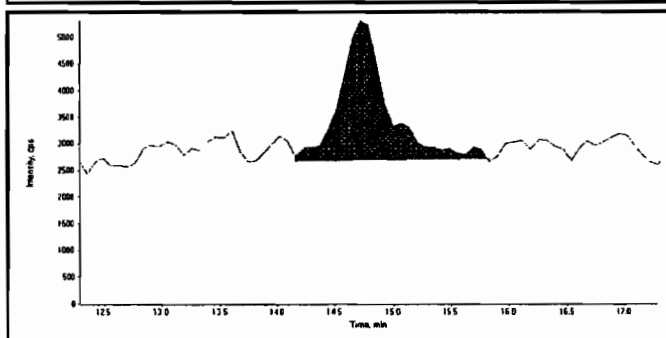
Data File	EXP0415001.wiff	**Acquisition Date**	4/15/2010 10:07:41 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



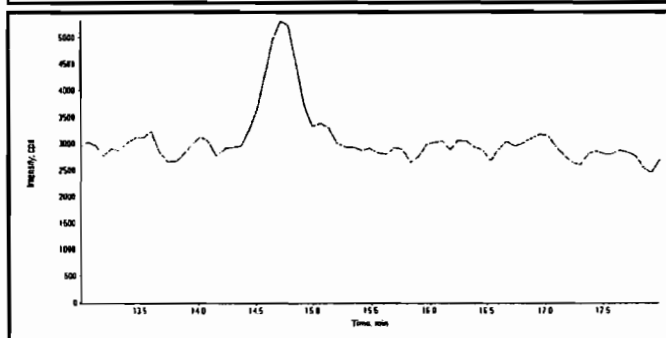
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	7.61e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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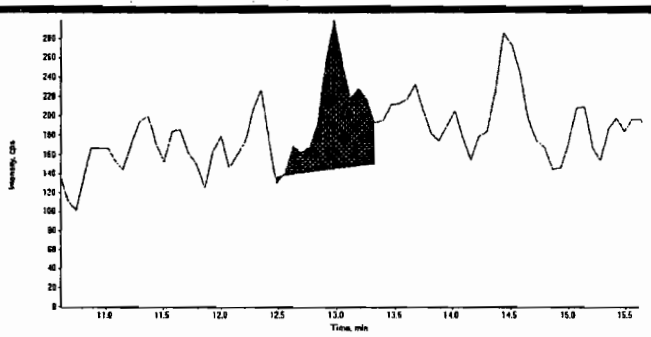
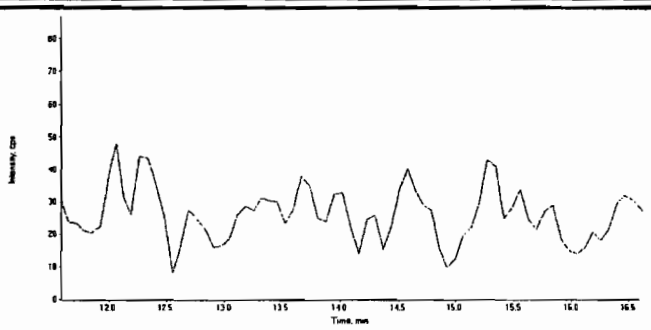
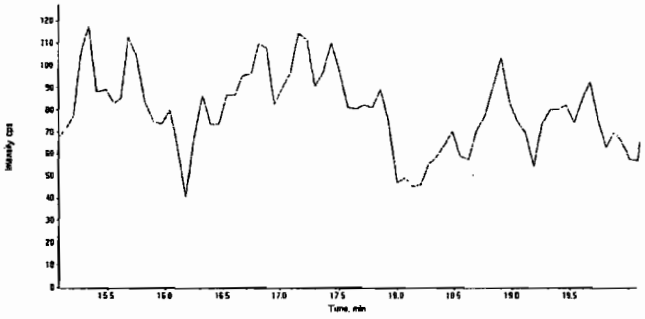
Data File	EXP0415001.wiff	**Acquisition Date**	4/15/2010 10:07:41 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



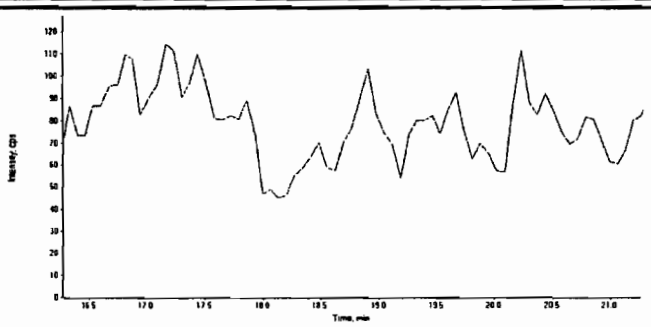
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.0
Area Counts:	3.16e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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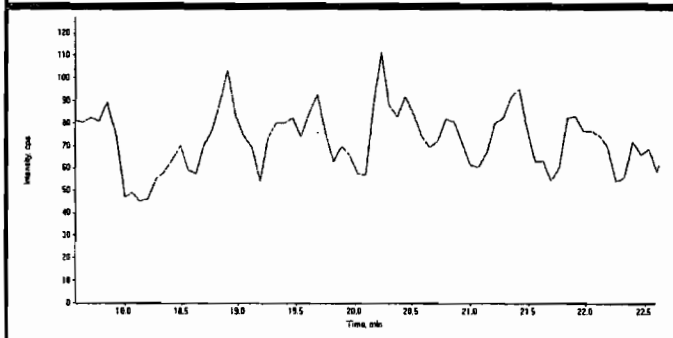
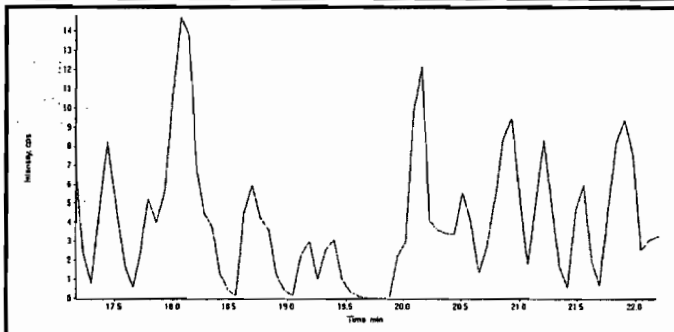
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415001.wiff	**Acquisition Date**	4/15/2010 10:07:41 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 15-APR-10 10:33

GEL Data File: EXP0415002.wiff

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
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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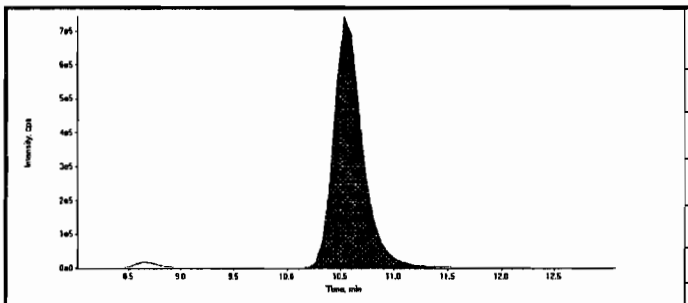
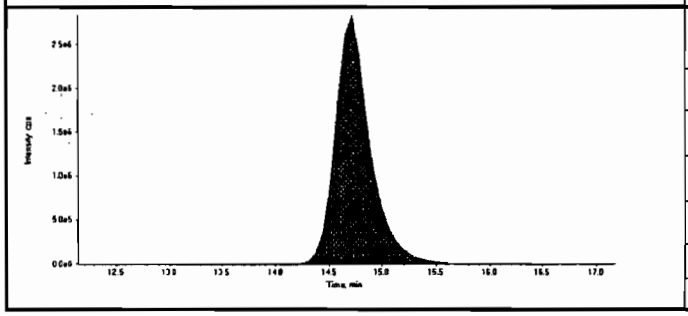
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

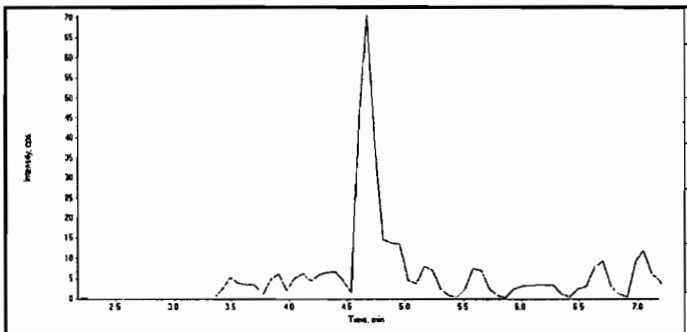
Data File	EXP0415002.wiff	**Acquisition Date**	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



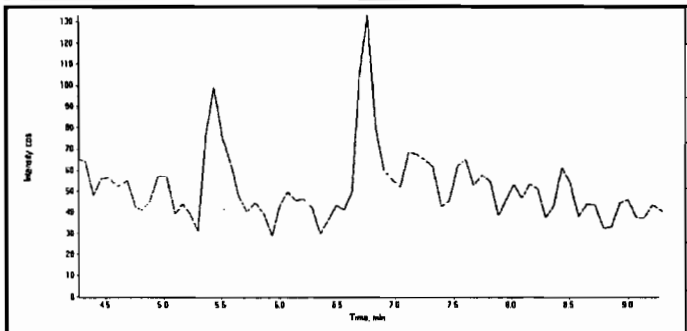
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	65600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Anne 04/23/10 Lan 4/23/10

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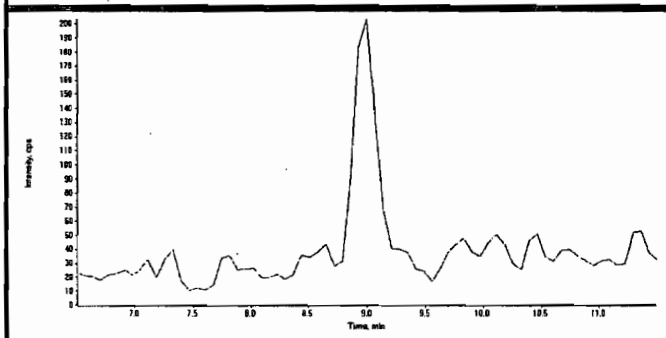
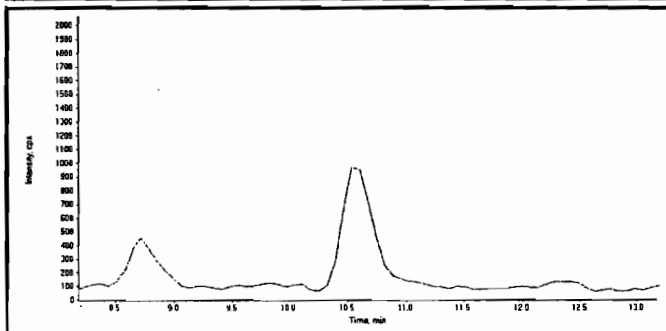
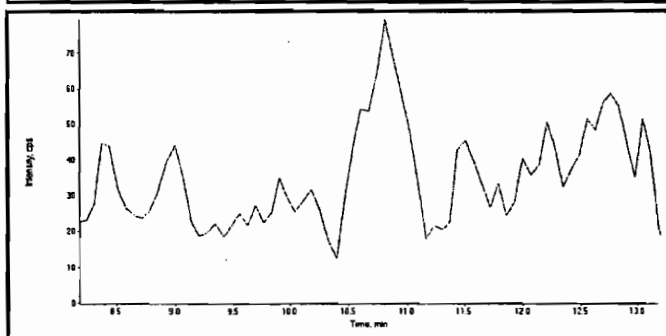
Data File	EXP0415002.wiff	**Acquisition Date**	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



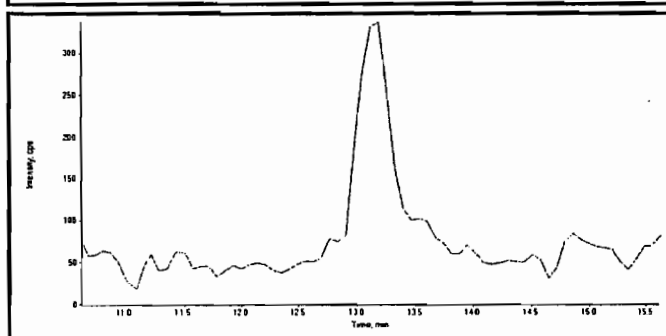
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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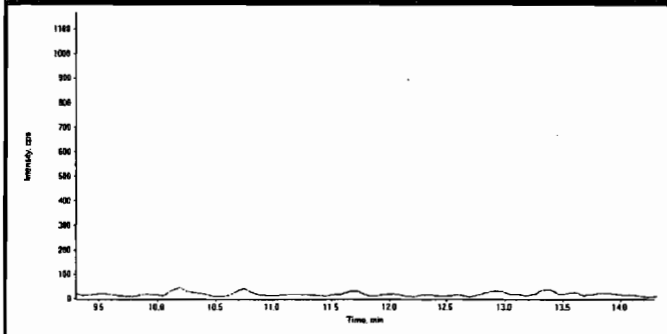
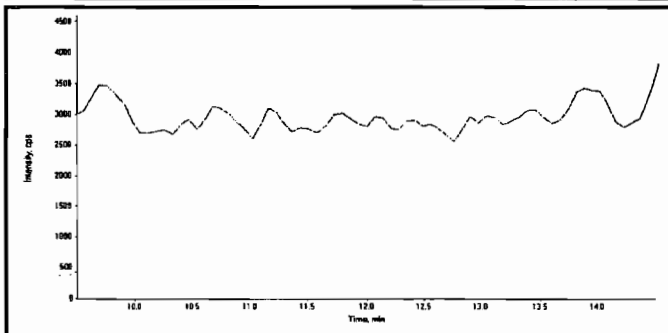
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

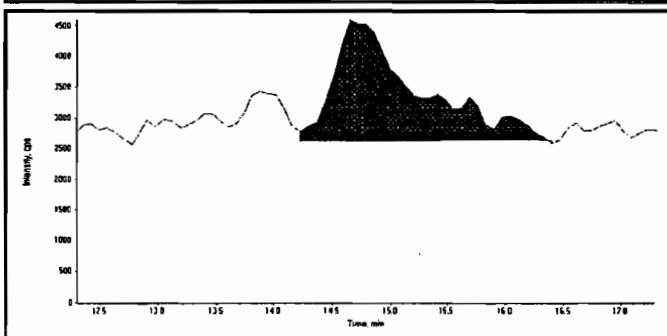
Data File	EXP0415002.wiff	**Acquisition Date**	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



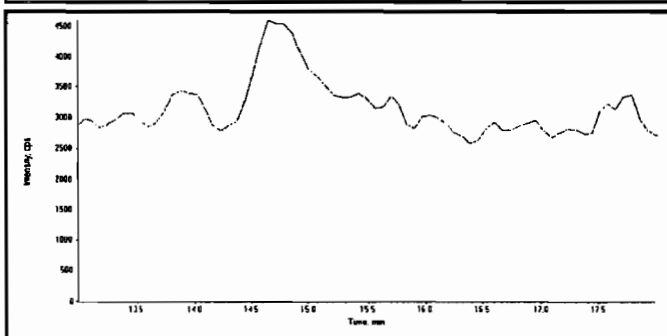
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.6
Area Counts:	1.01e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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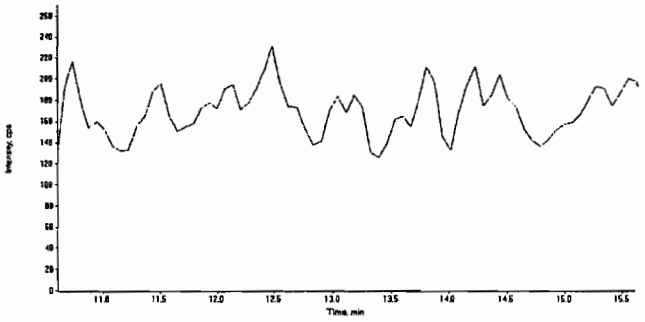
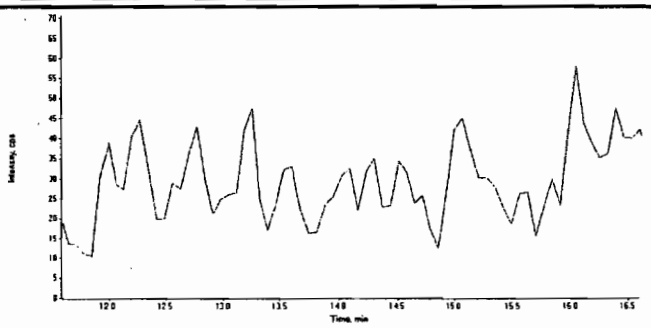
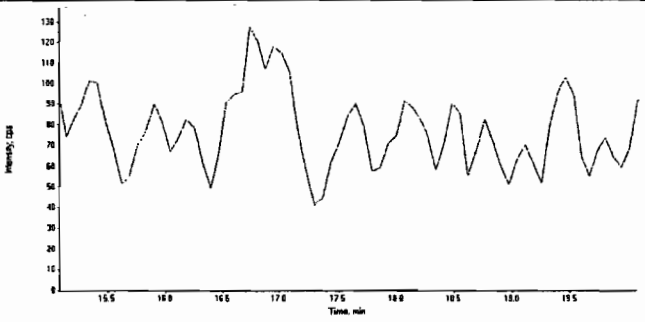
Data File	EXP0415002.wiff	**Acquisition Date**	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



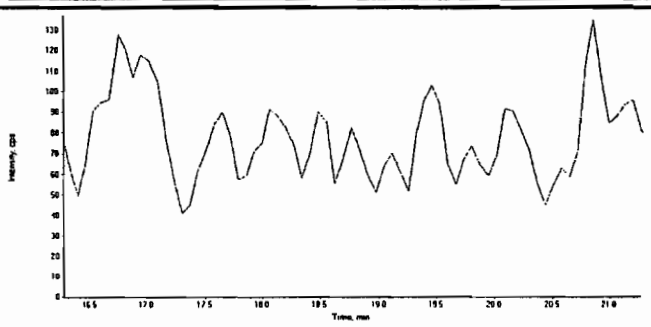
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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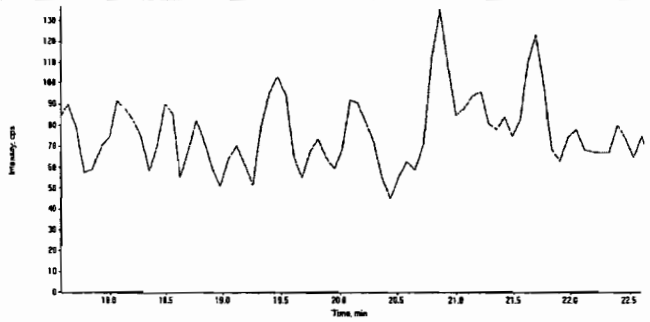
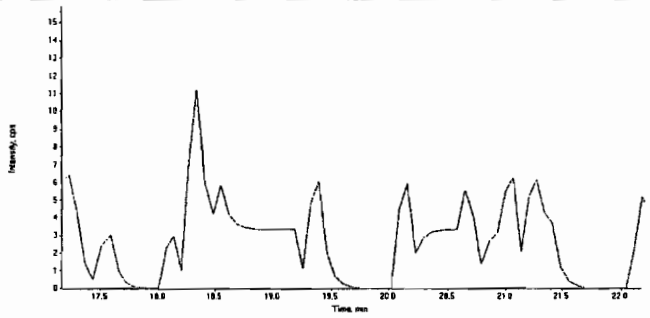
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415002.wiff	**Acquisition Date**	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 09–APR–10 07:14

GEL Data File: EXS04090001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

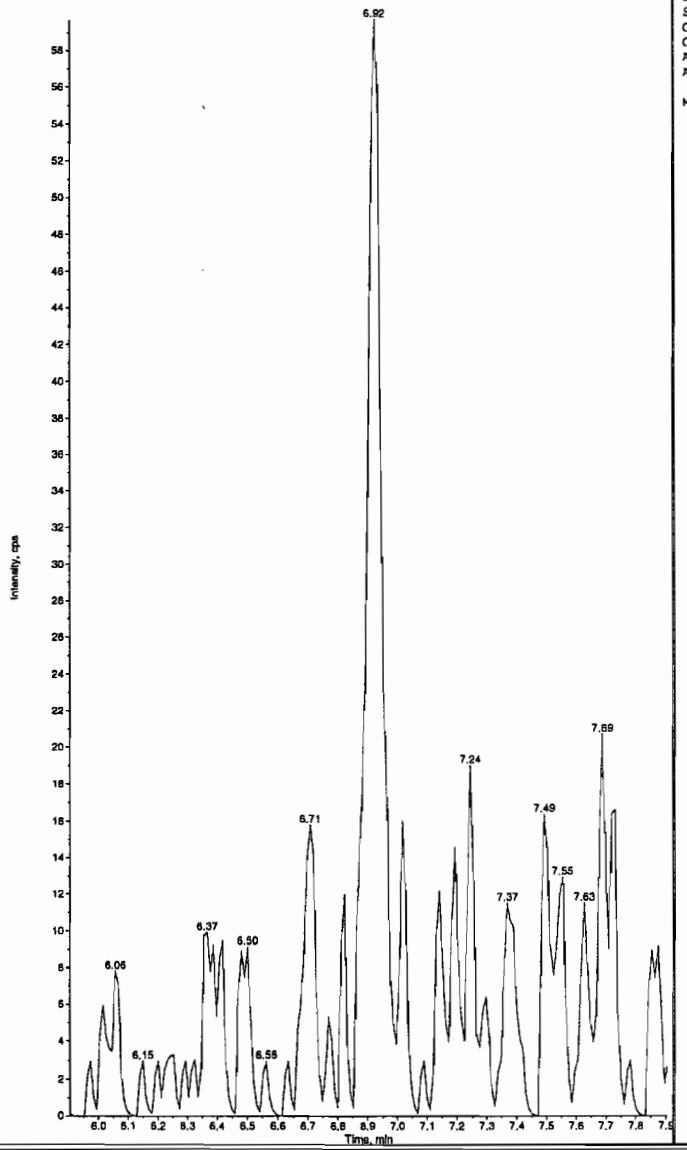
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.08
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 4/12/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090001.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: 4/9/2010
Acq. Time: 7:14:41 AM

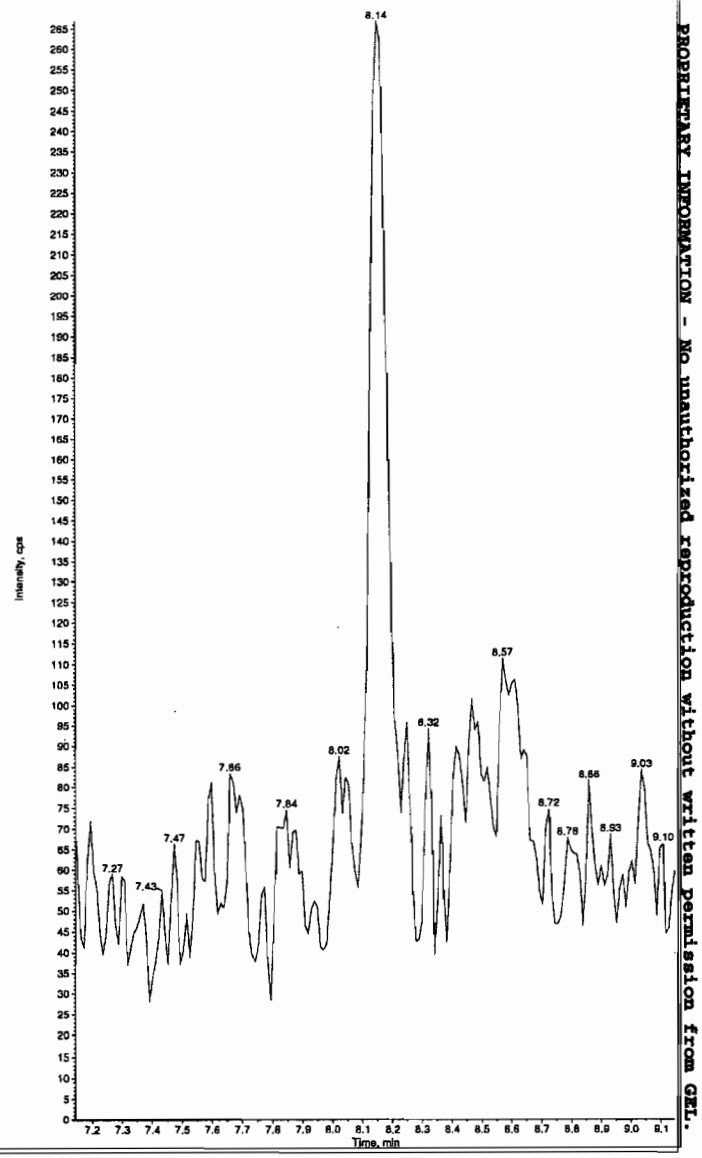
Modified: No



Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090001.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: 4/9/2010
Acq. Time: 7:14:41 AM

Modified: No



dhm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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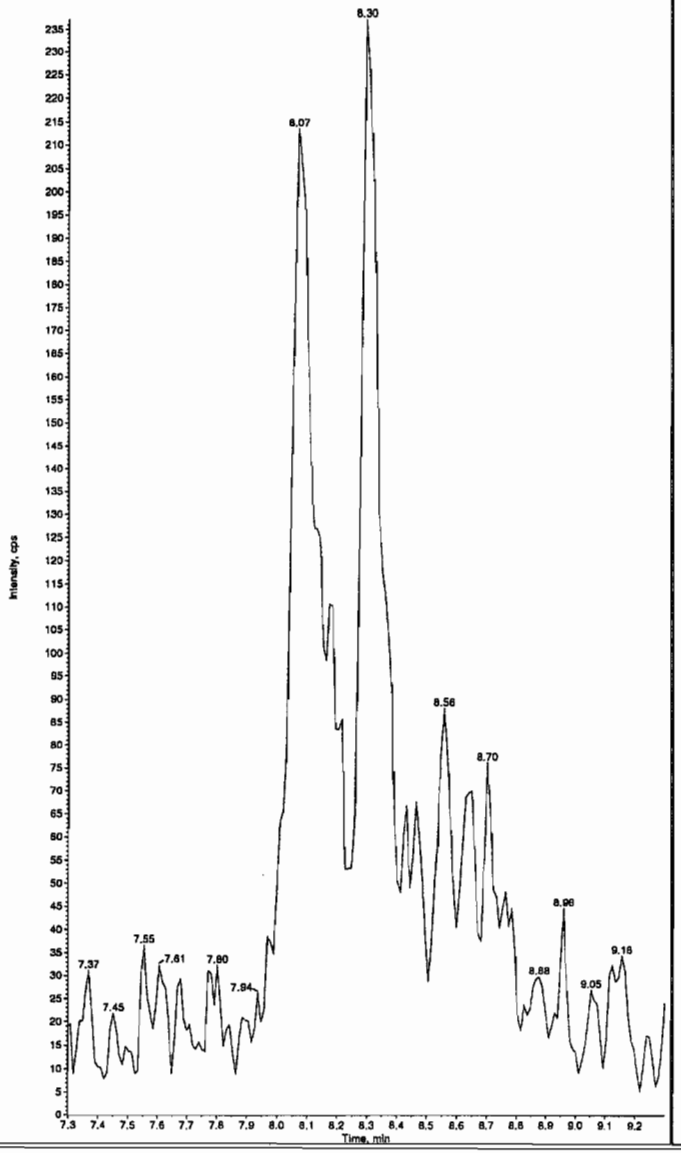
Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04090001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 7:14:41 AM

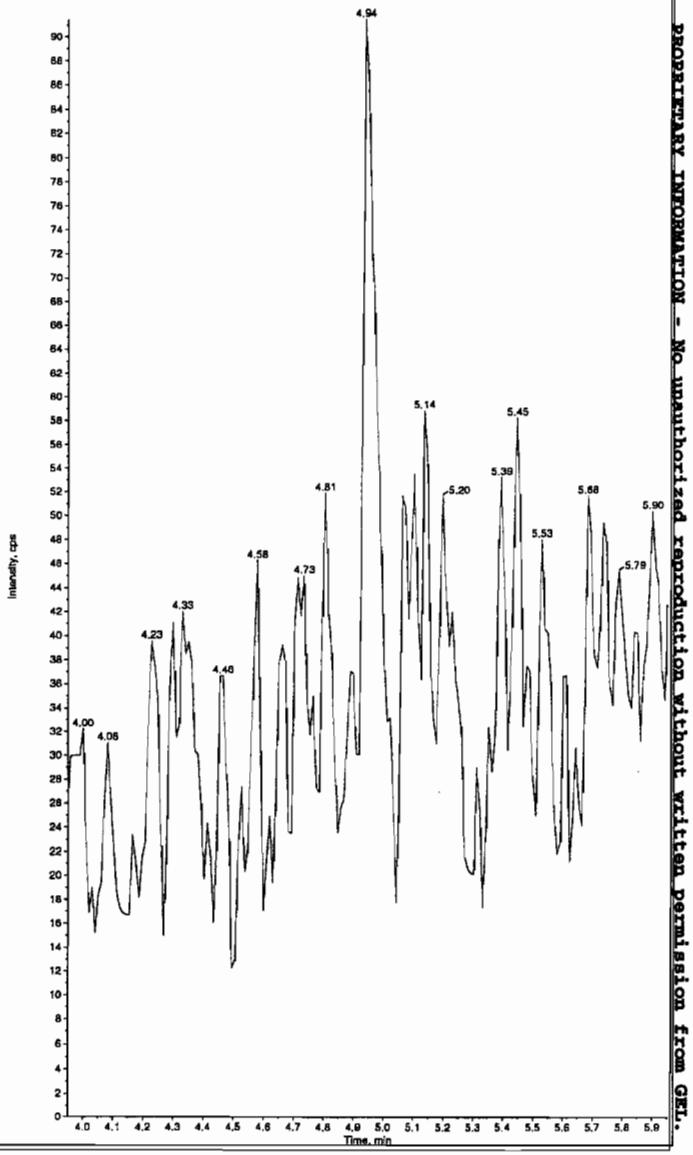
Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04090001.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: 4/9/2010
Acq. Time: 7:14:41 AM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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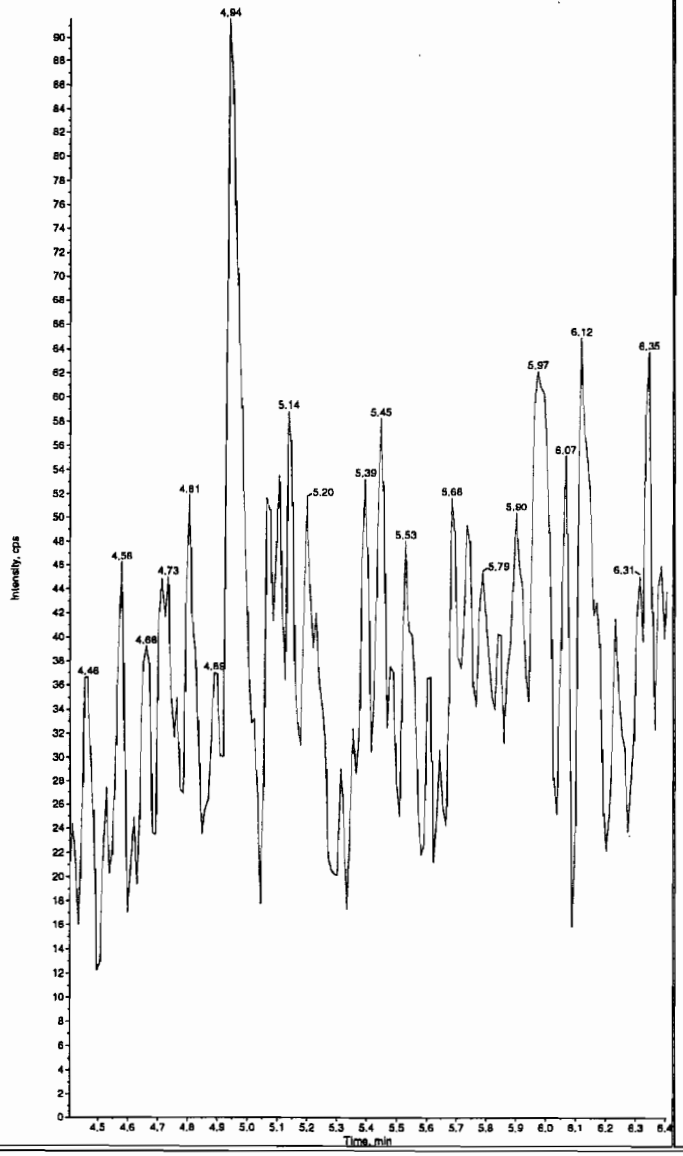
Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:      1
Sample Type:       Unknown
Concentration:     N/A
Calculated Conc:   0.00      ng/mL
Acq. Date:         4/9/2010
Acq. Time:         7:14:41 AM

Modified:          No
```

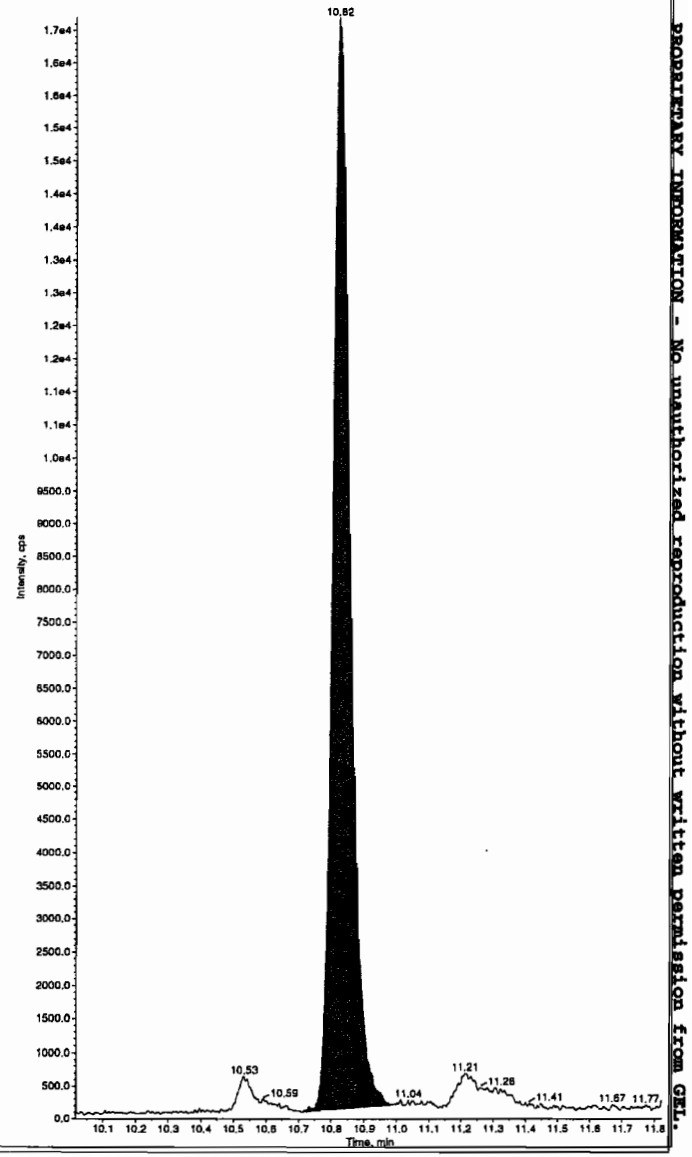


Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:      1
Sample Type:       Unknown
Concentration:     N/A
Calculated Conc:   2.08      ng/mL
Acq. Date:         4/9/2010
Acq. Time:         7:14:41 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:       10.8      min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.8      min
Area:              6.47e+004 counts
Height:            16537.569 cps
Start Time:        10.7      min
End Time:          11.0      min
```



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 09–APR–10 07:30

GEL Data File: EXS04090002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

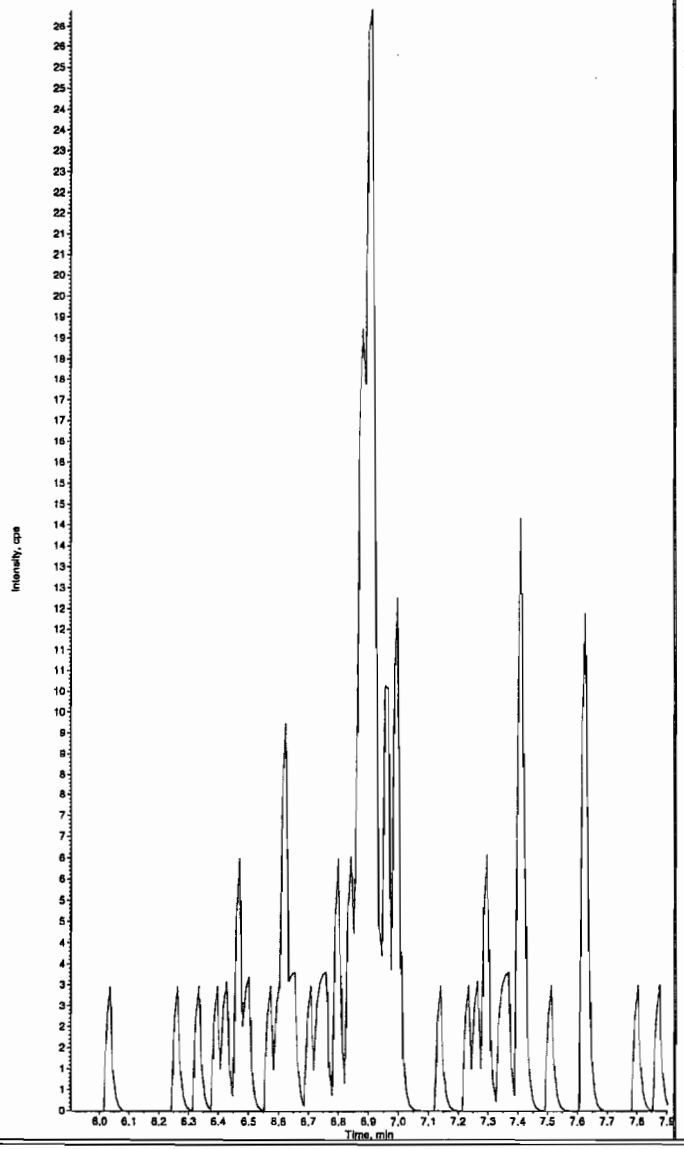
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.56
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lar 4/12/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090002.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: 4/9/2010
Acq. Time: 7:30:29 AM

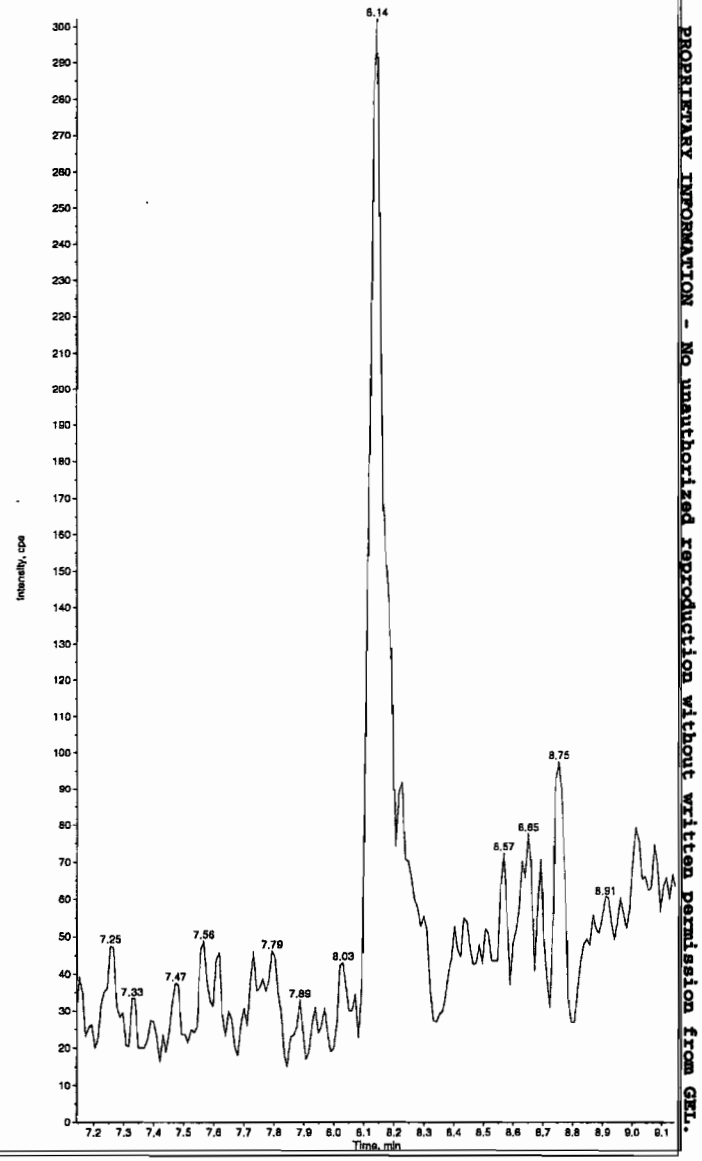
Modified: No



Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090002.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: 4/9/2010
Acq. Time: 7:30:29 AM

Modified: No



Hmm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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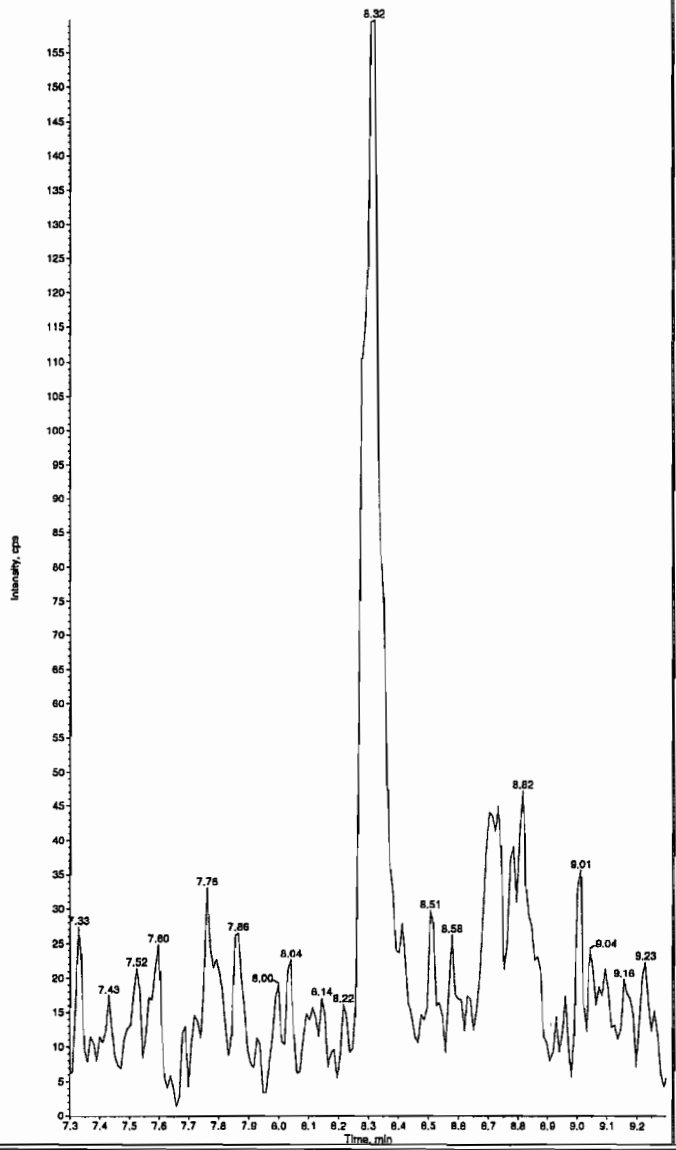
Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04090002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 7:30:29 AM

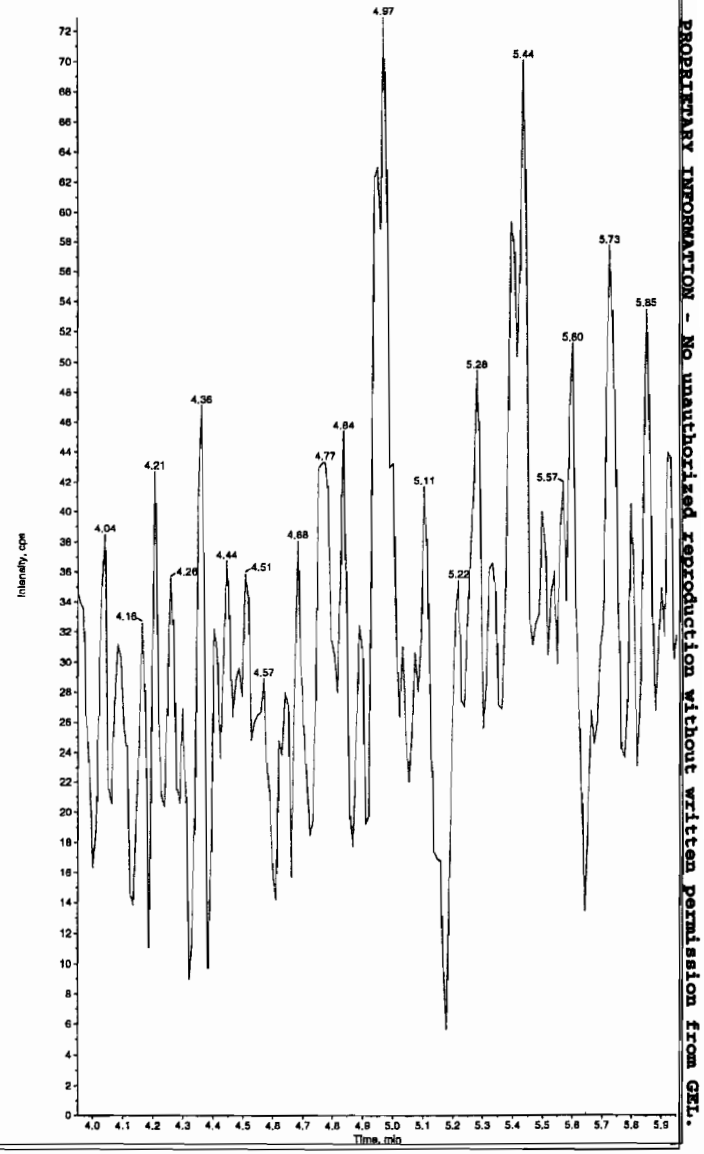
Modified: No



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04090002.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: 4/9/2010
Acq. Time: 7:30:29 AM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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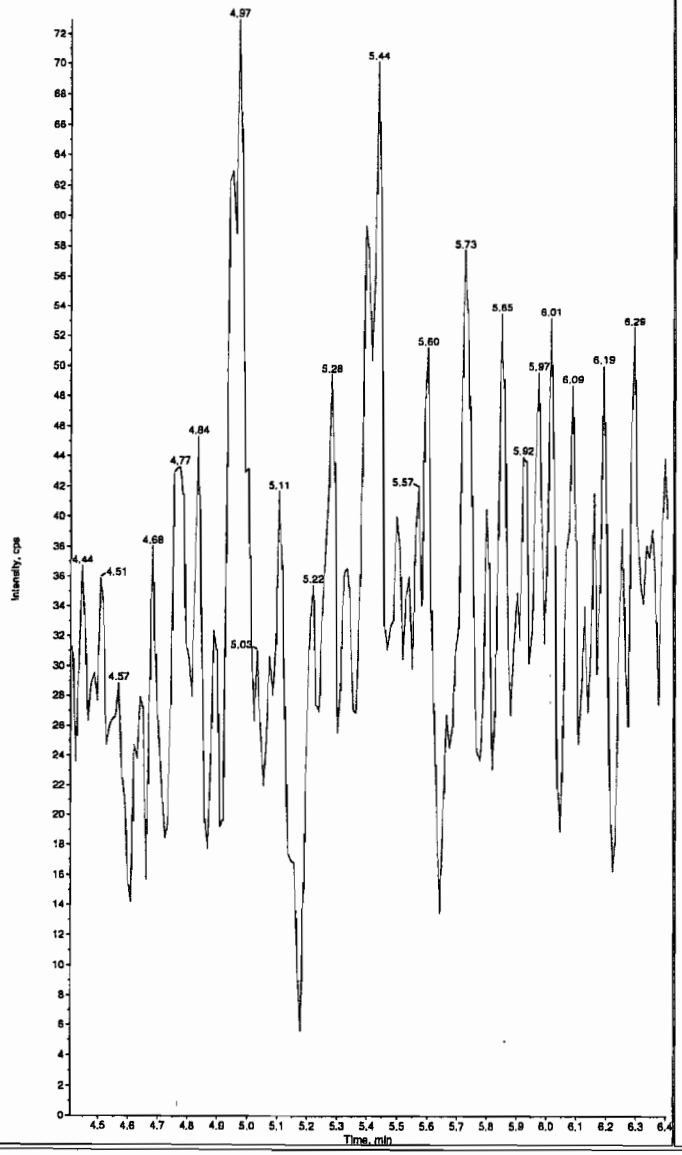
Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       7:30:29 AM

Modified:            No
```

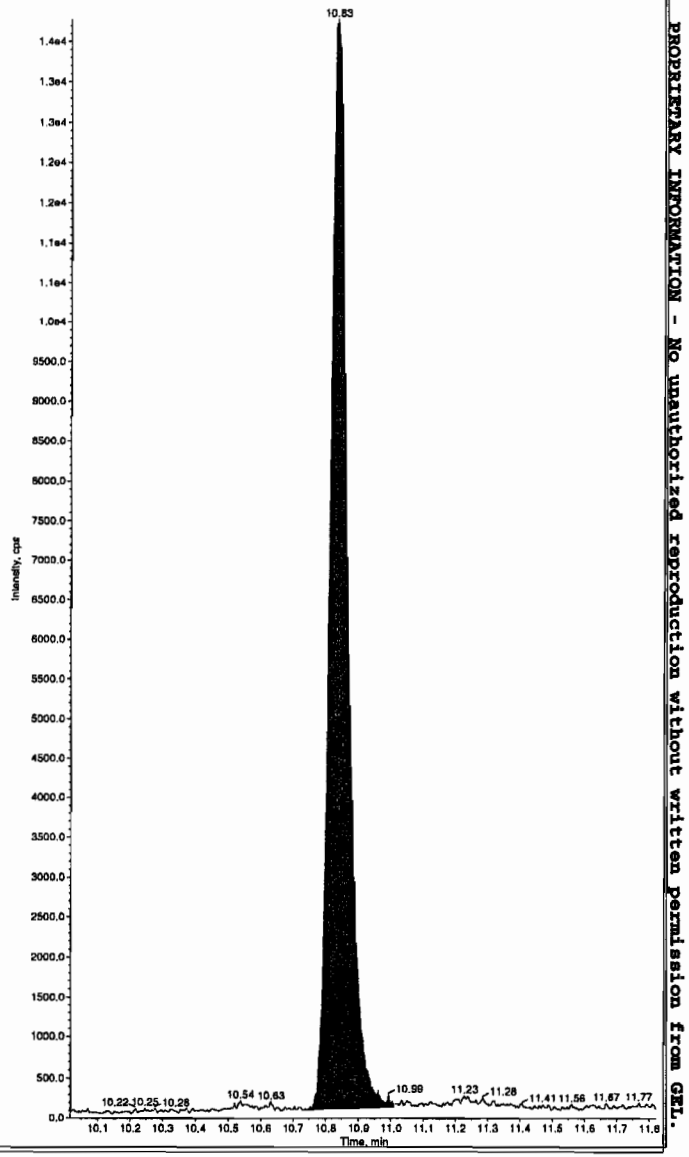


Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04090002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:       N/A
Calculated Conc:     1.56     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       7:30:29 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:         10.8    min
Use Relative RT:     No

Int. Type:       Valley
Retention Time:      10.8    min
Area:        5.40e+004    counts
Height:        13667.690    cps
Start Time:          10.7    min
End Time:            11.0    min
```



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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 15-APR-10 13:35

GEL Data File: EXP0415009.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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

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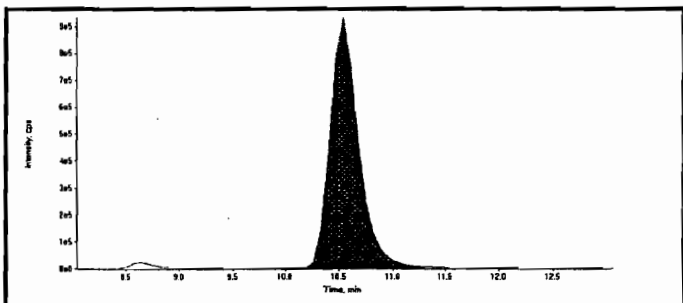
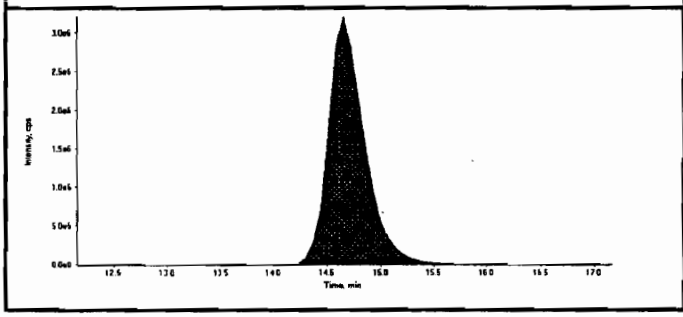
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

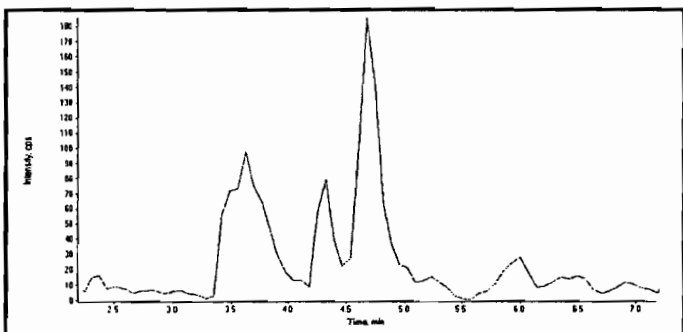
Data File	EXP0415009.wiff	**Acquisition Date**	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



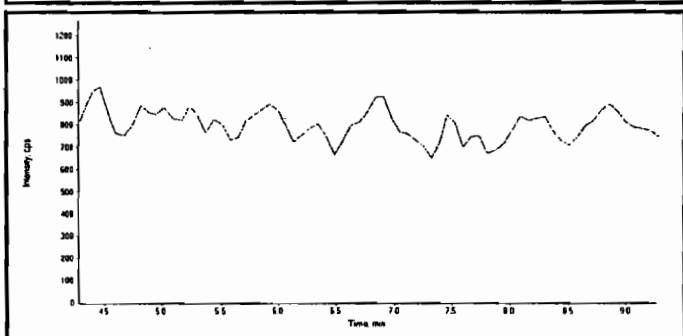
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	75000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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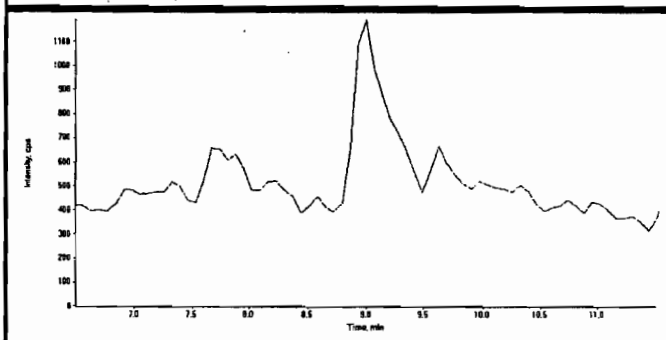
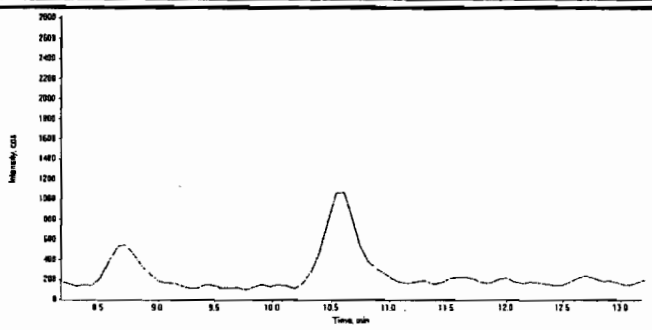
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

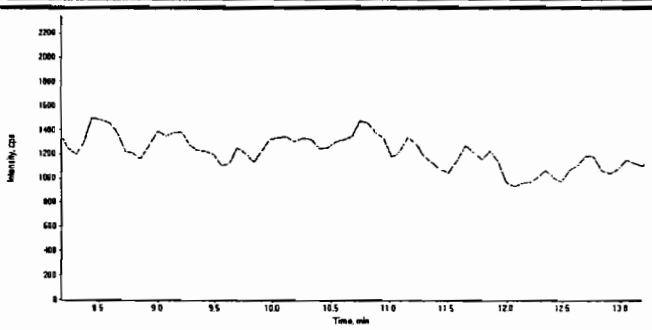
Data File	EXP0415009.wiff	**Acquisition Date**	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



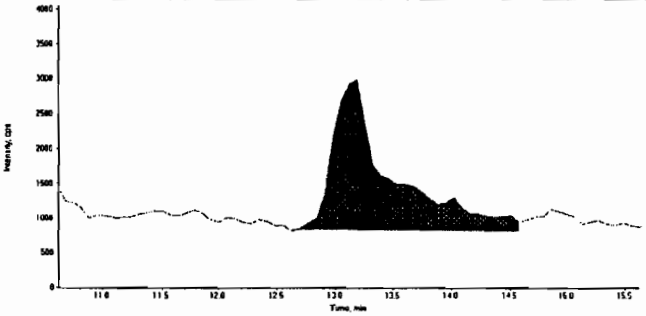
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	7.76e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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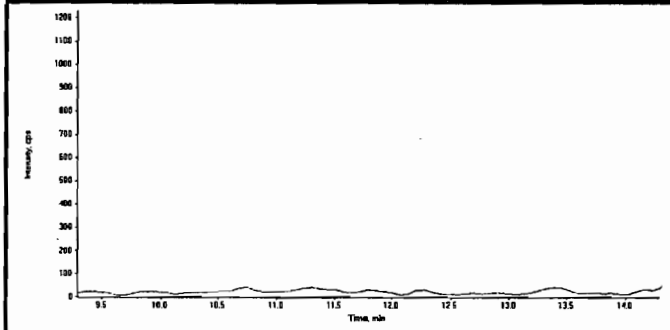
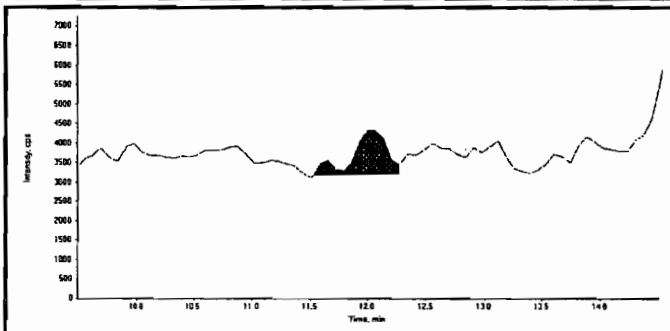
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

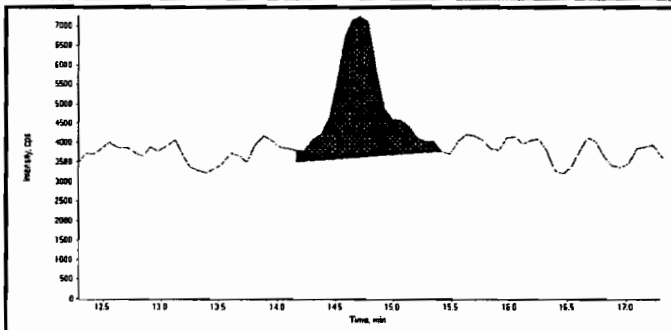
Data File	EXP0415009.wiff	**Acquisition Date**	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



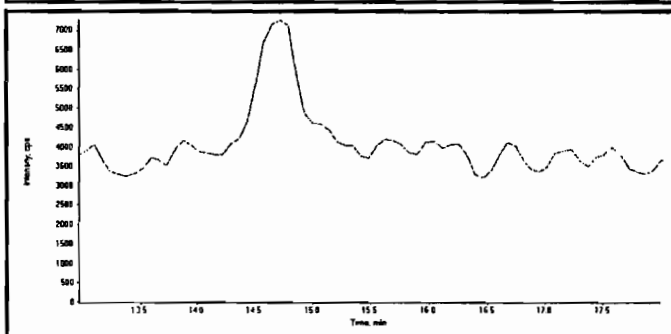
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	2.48e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.08e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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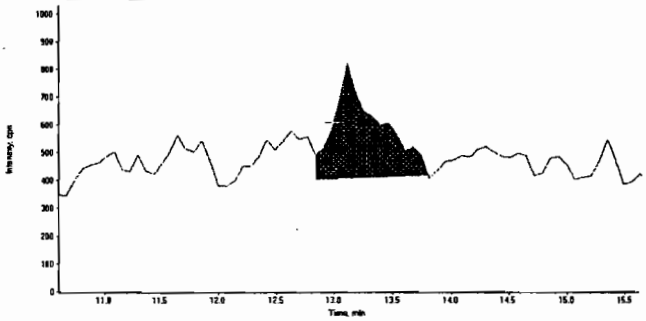
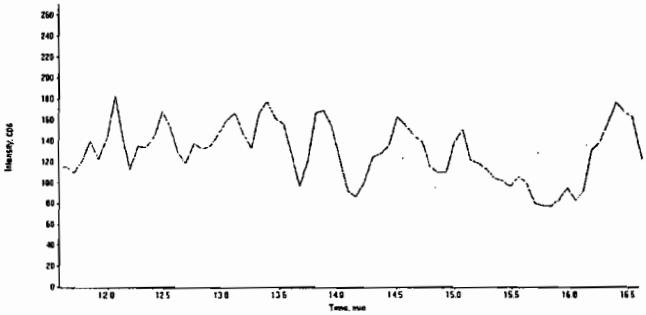
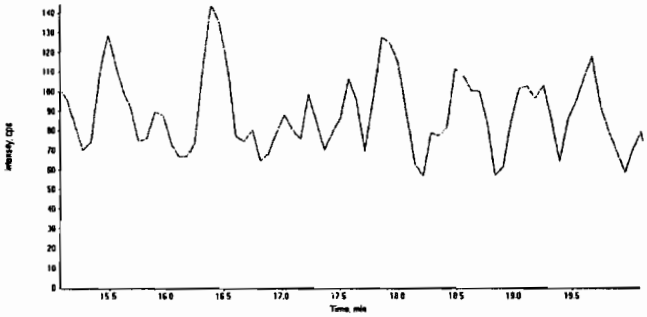
Data File	EXP0415009.wiff	**Acquisition Date**	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



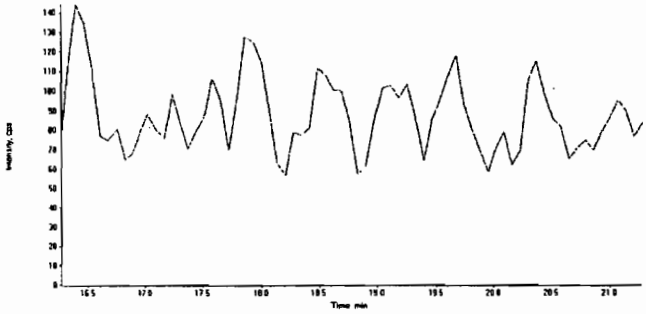
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	1.11e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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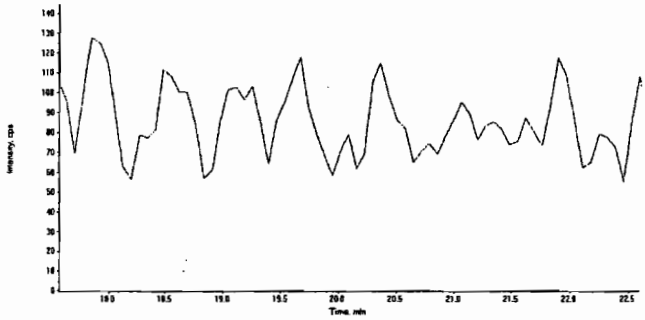
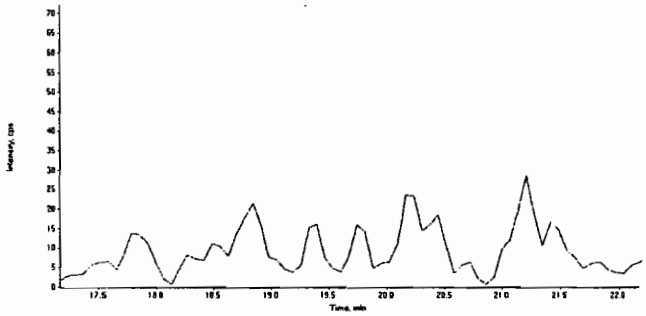
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415009.wiff	**Acquisition Date**	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 15–APR–10 14:27

GEL Data File: EXP0415011.wiff

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
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
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	4.37
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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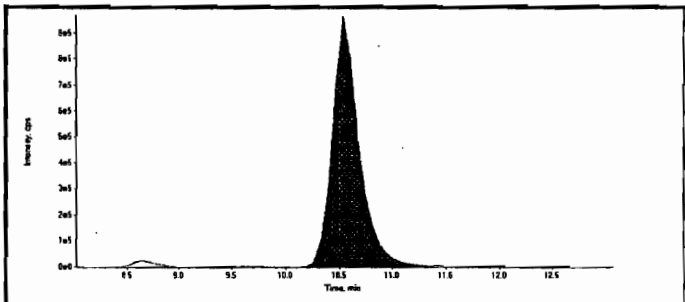
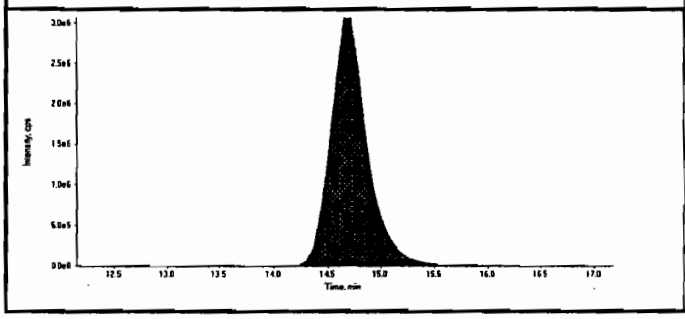
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

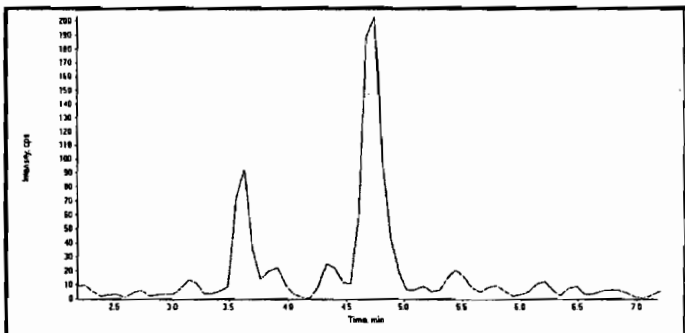
Data File	EXP0415011.wiff	**Acquisition Date**	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



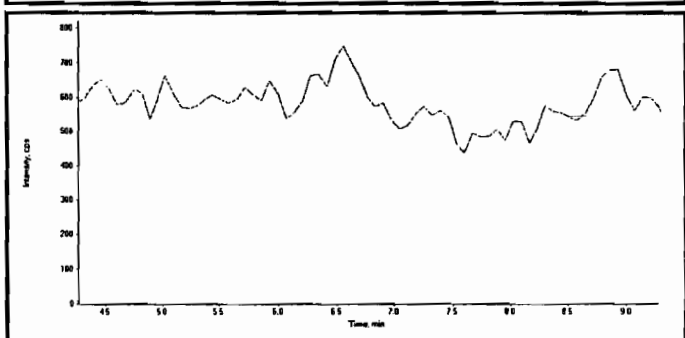
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	74900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmw 04/23/10
LER 4/23/10

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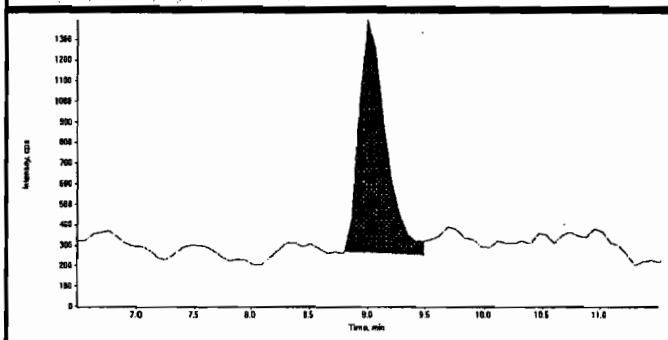
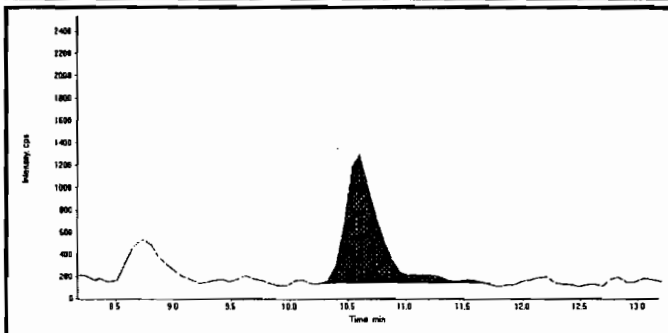
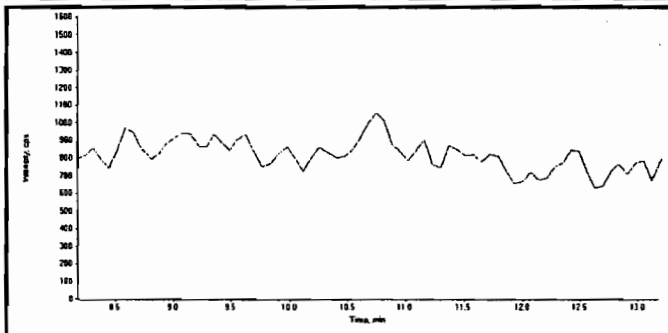
Data File	EXP0415011.wiff	**Acquisition Date**	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



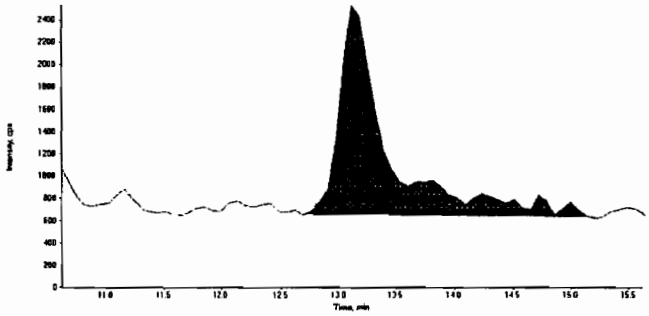
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.86e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.36e+004
Manual Modification	No
Amount:	4.37 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	5.58e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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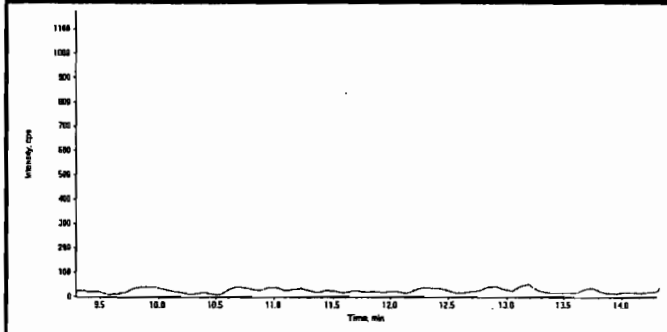
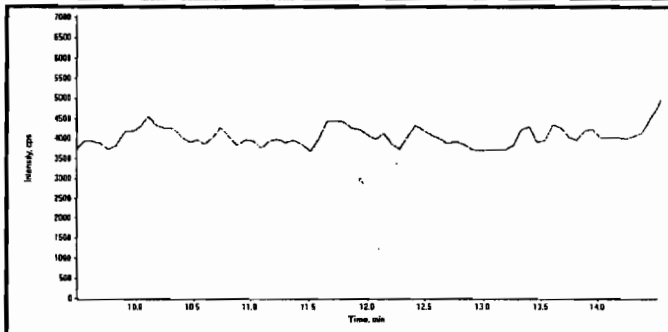
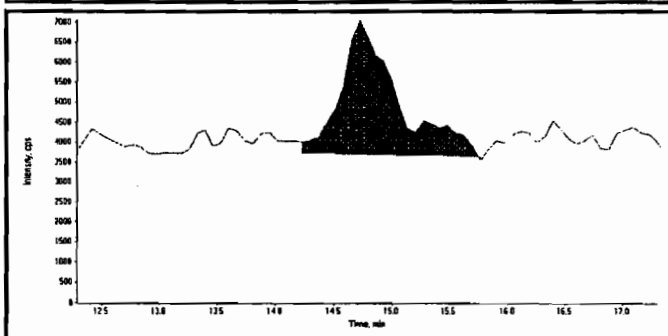
Data File	EXP0415011.wiff	**Acquisition Date**	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



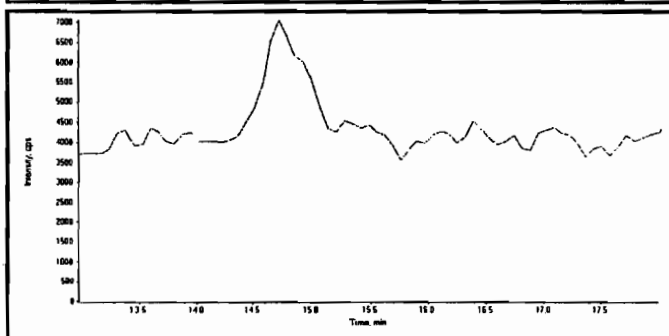
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.16e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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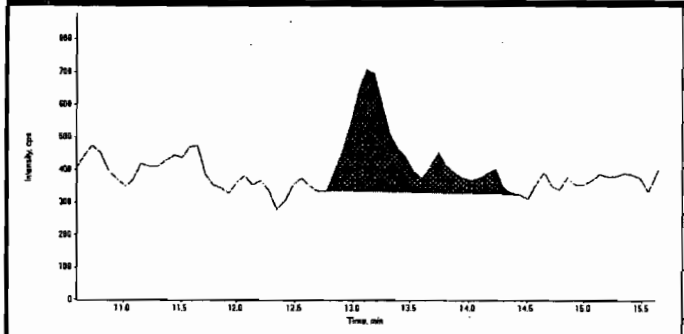
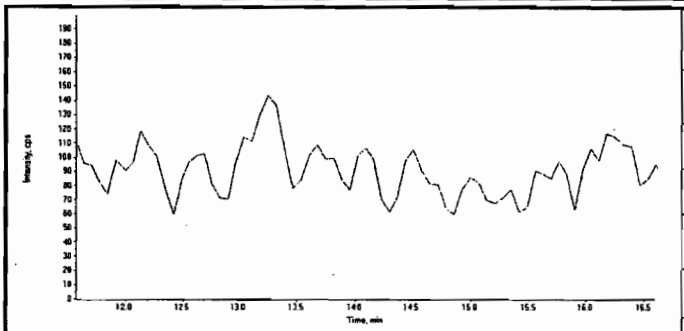
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

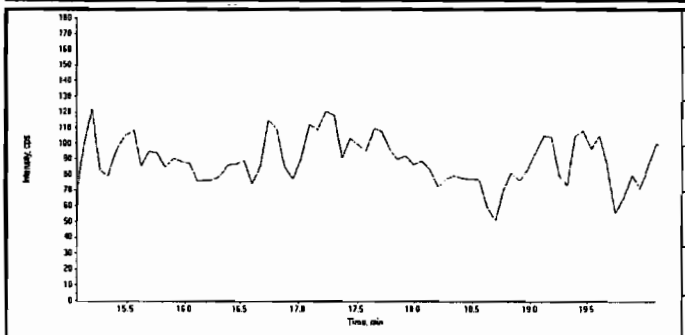
Data File	EXP0415011.wiff	**Acquisition Date**	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



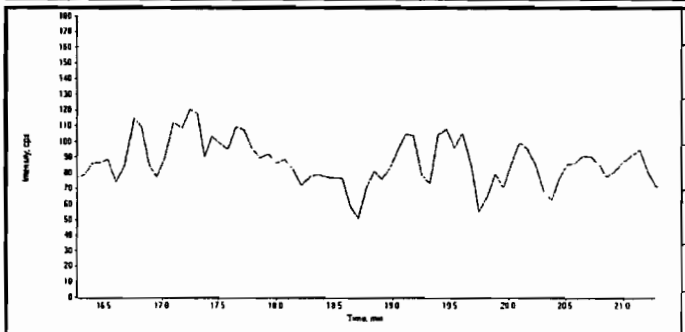
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	1.23e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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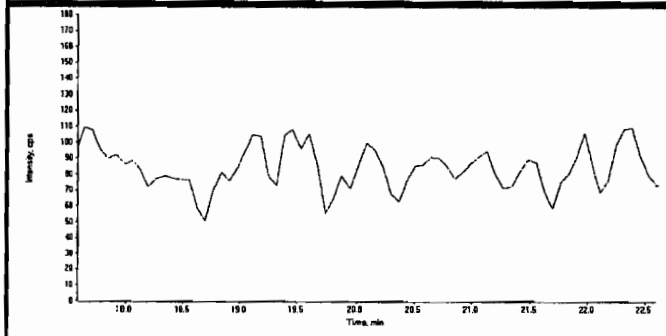
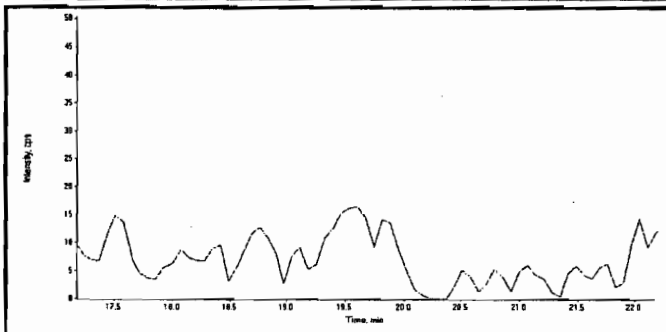
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415011.wiff	**Acquisition Date**	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 15–APR–10 16:10

GEL Data File: EXP0415015.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
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	4.34
m–Nitrotoluene	0	0

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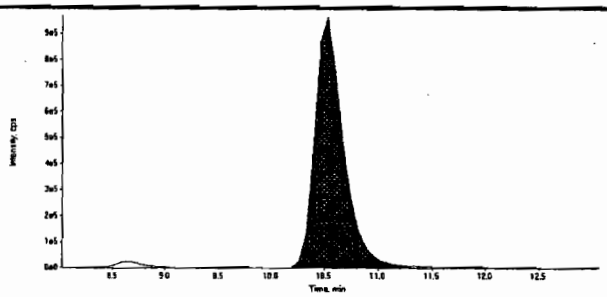
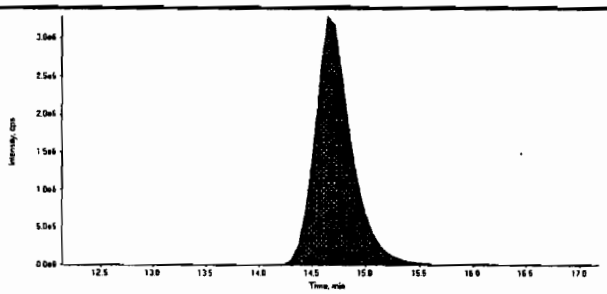
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

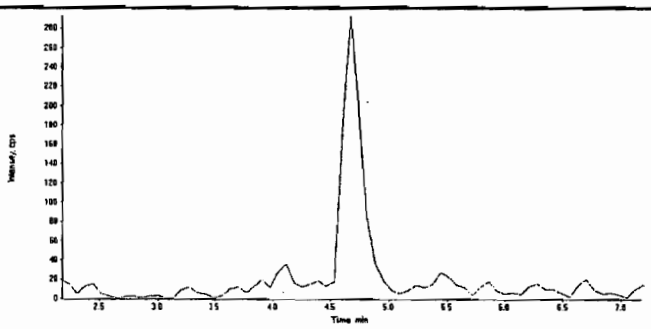
Data File	EXP0415015.wiff	**Acquisition Date**	4/15/2010 4:10:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



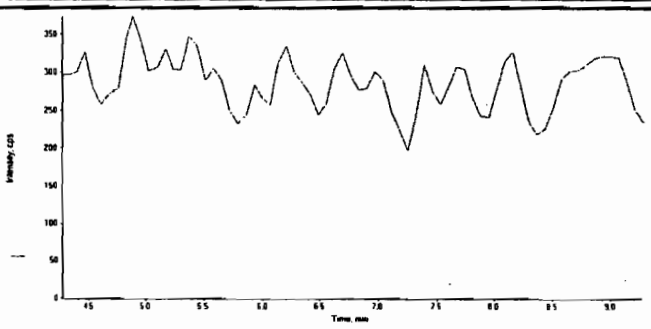
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	79300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmy 04/23/10
Lcu 4/23/10

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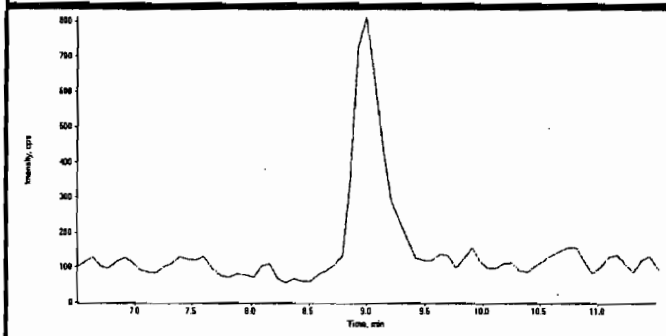
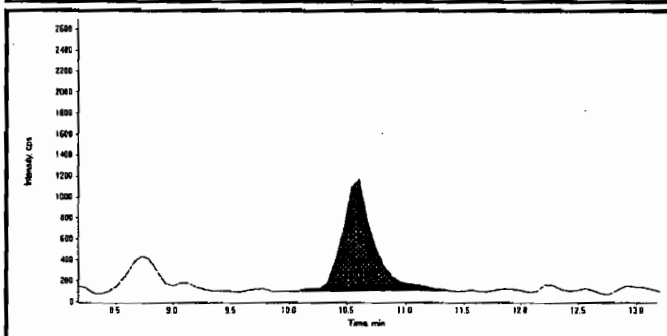
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

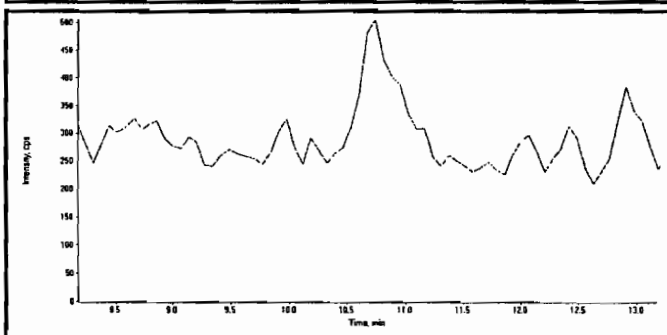
Data File	EXP0415015.wiff	**Acquisition Date**	4/15/2010 4:10:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



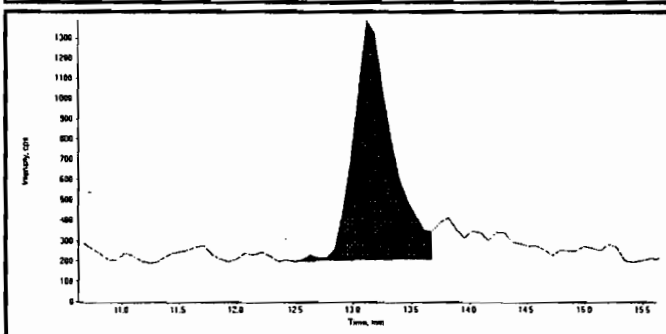
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.11e+004
Manual Modification	No
Amount:	4.34 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	2.79e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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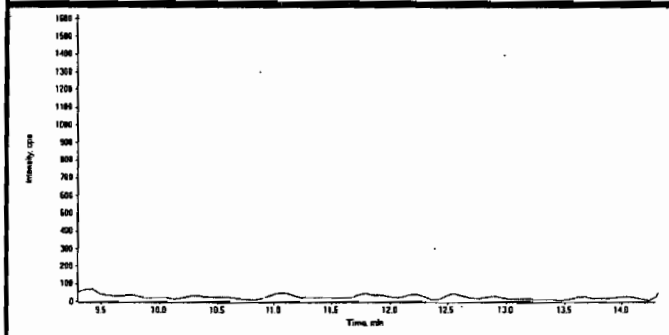
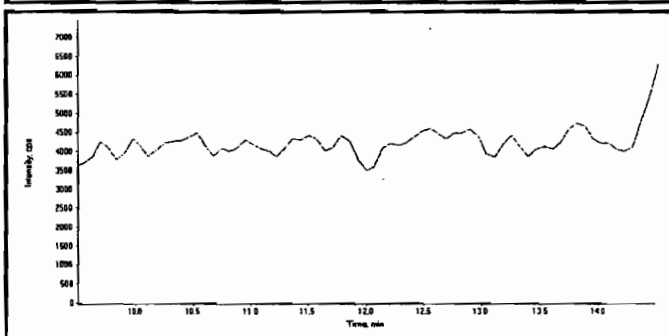
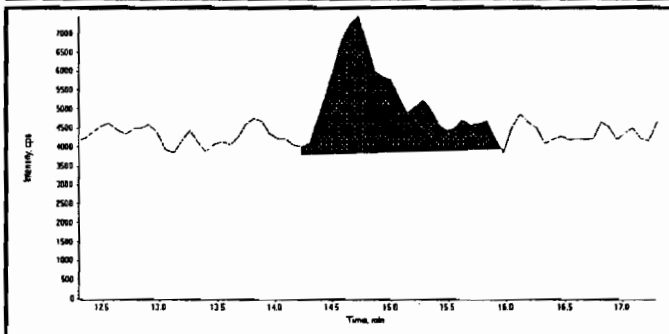
Data File	EXP0415015.wiff	**Acquisition Date**	4/15/2010 4:10:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.49e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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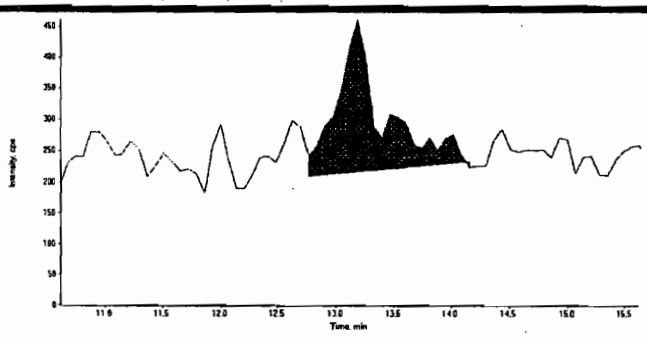
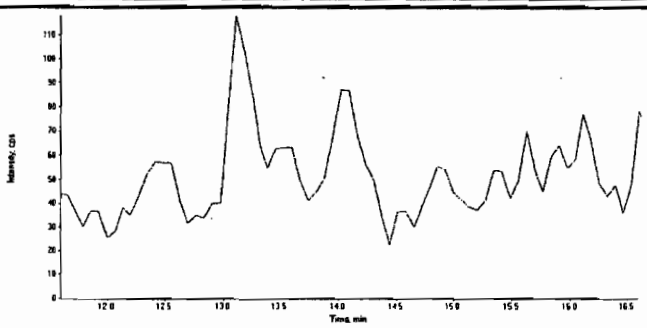
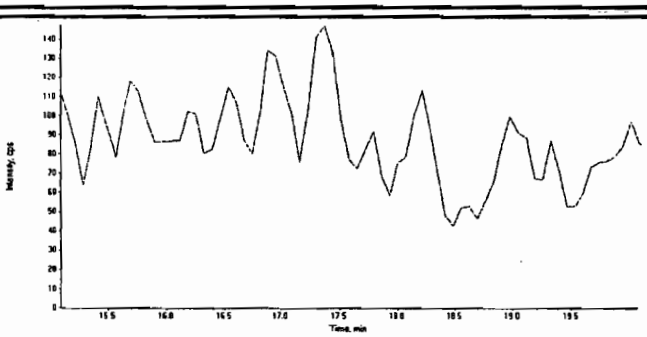
Data File	EXP0415015.wiff	**Acquisition Date**	4/15/2010 4:10:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



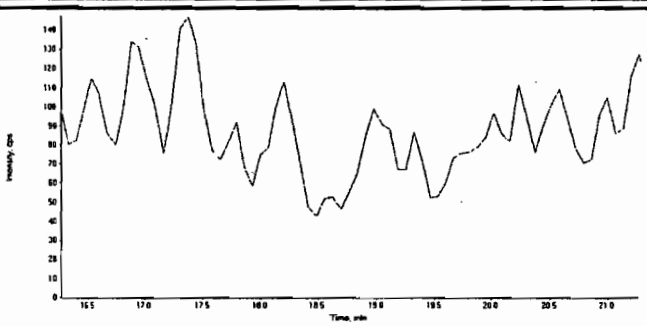
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	6.69e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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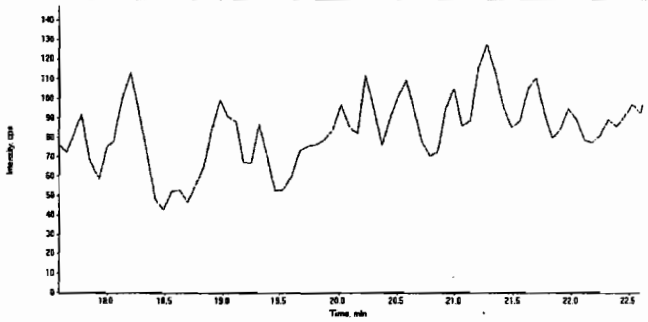
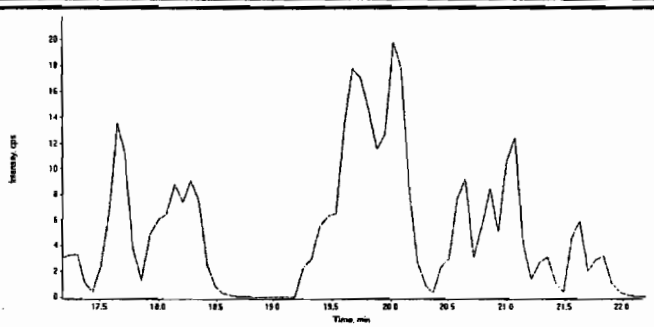
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415015.wiff	**Acquisition Date**	4/15/2010 4:10:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 15-APR-10 17:02

GEL Data File: EXP0415017.wiff

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
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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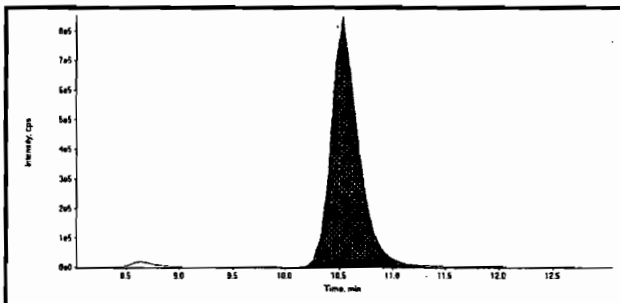
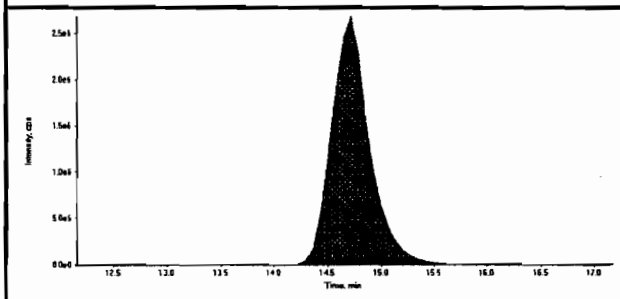
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

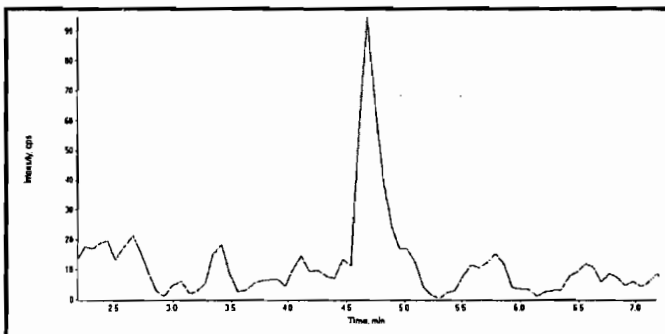
Data File	EXP0415017.wiff	**Acquisition Date**	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



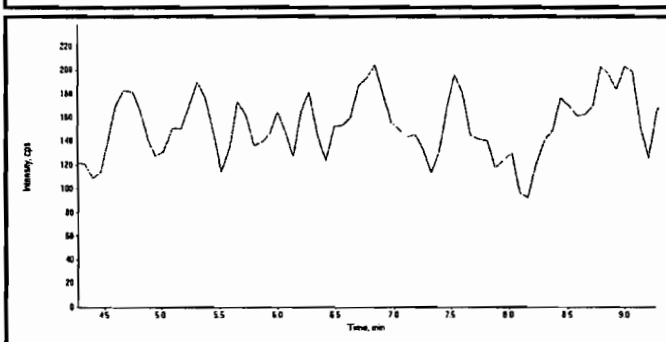
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmw 04/23/10 Lar 4/23/10

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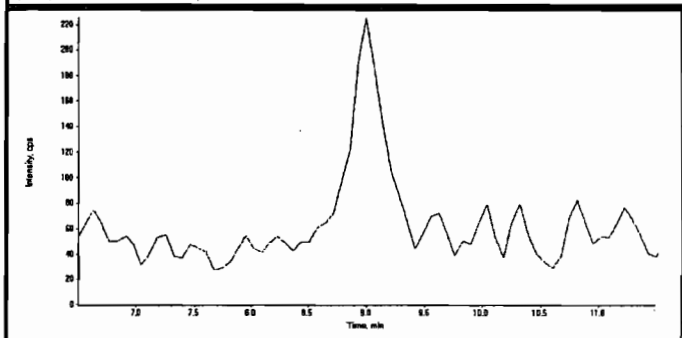
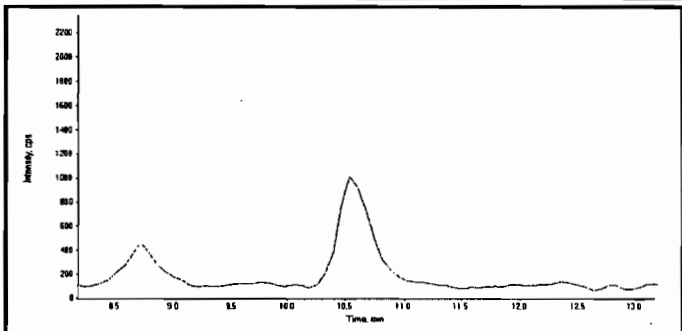
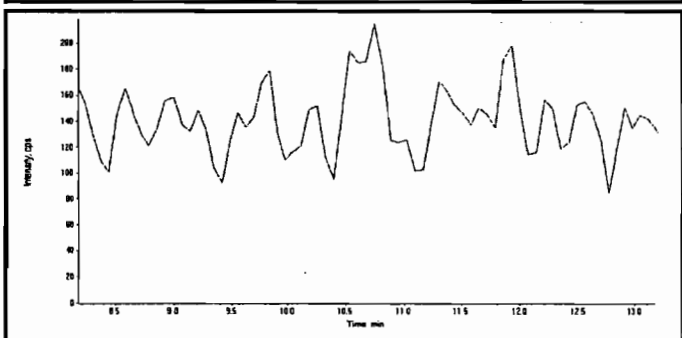
Data File	EXP0415017.wiff	**Acquisition Date**	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



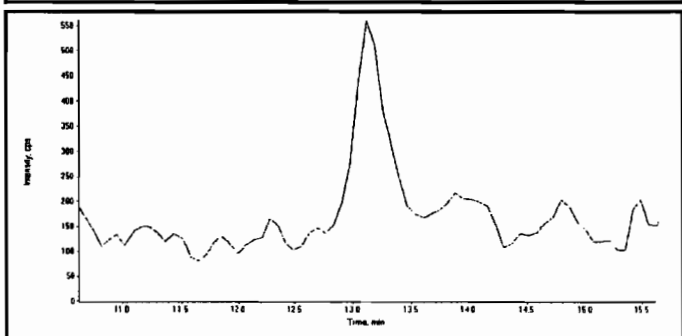
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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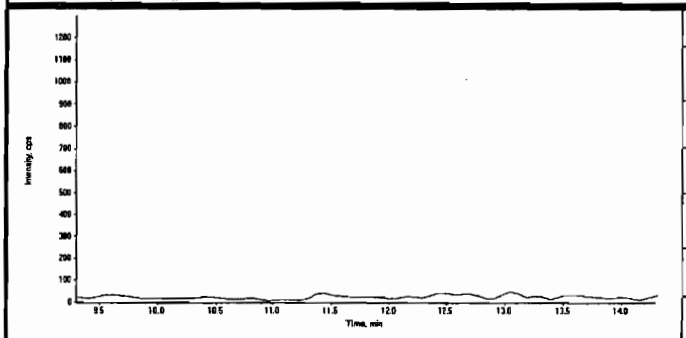
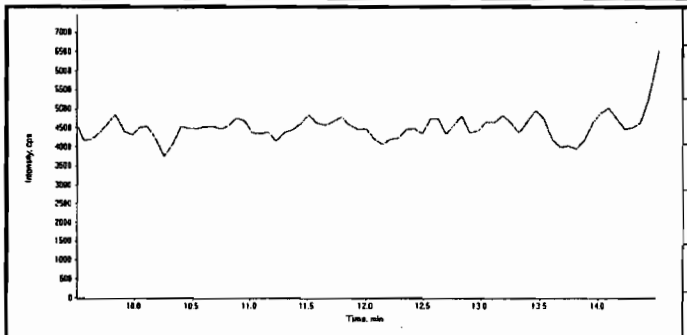
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

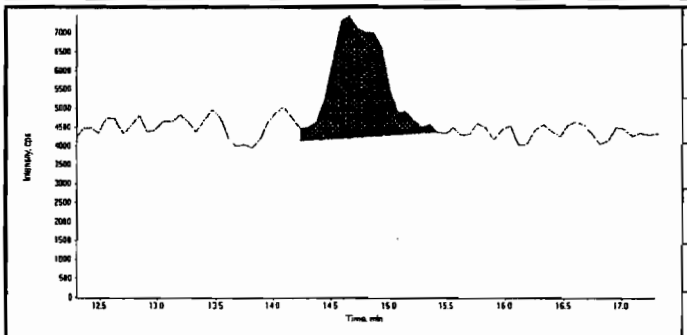
Data File	EXP0415017.wiff	**Acquisition Date**	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



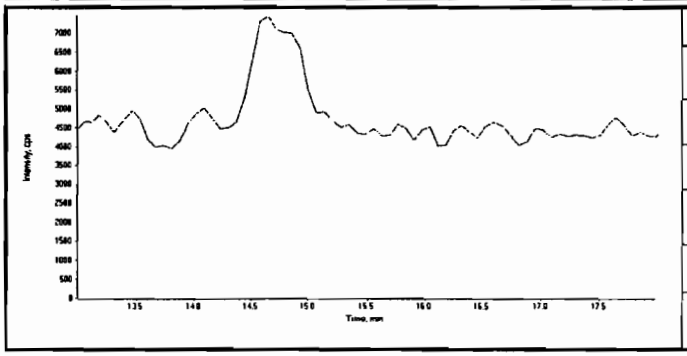
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.6
Area Counts:	1.04e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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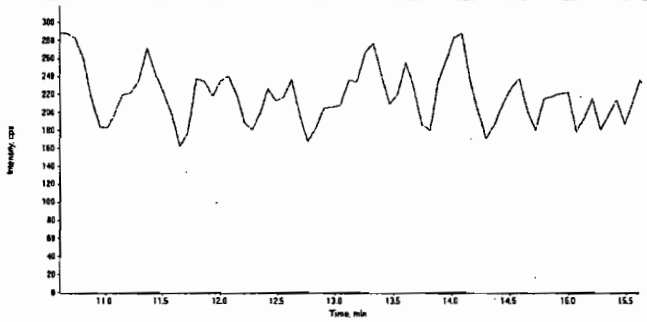
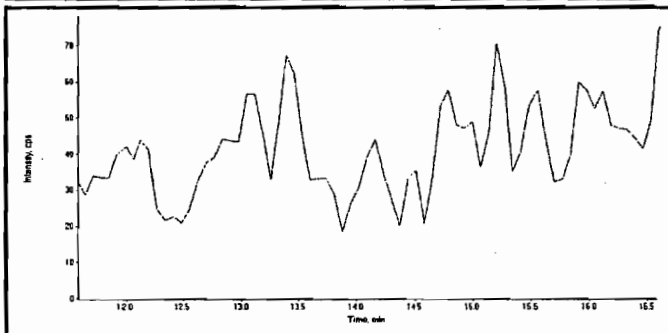
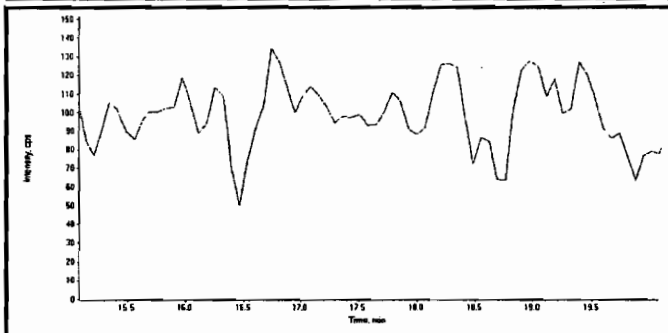
Data File	EXP0415017.wiff	**Acquisition Date**	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



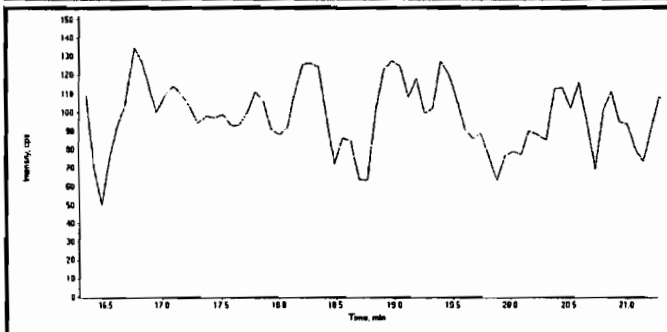
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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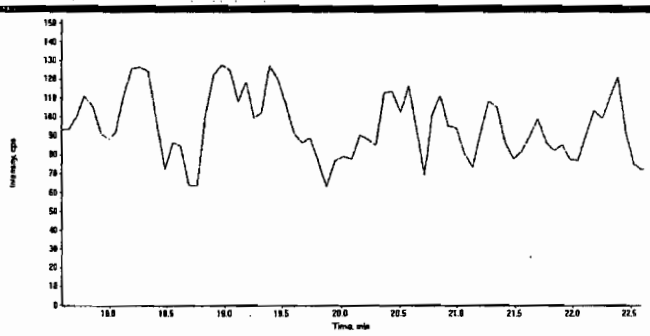
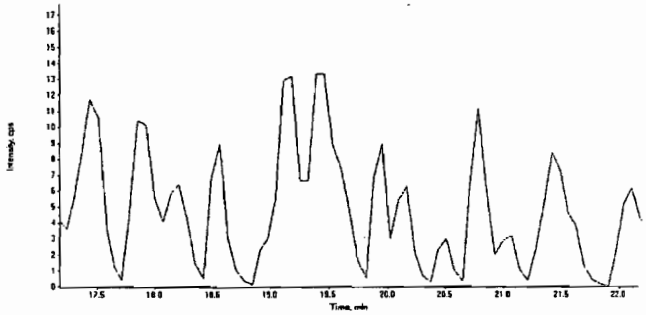
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415017.wiff	**Acquisition Date**	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 15-APR-10 17:54

GEL Data File: EXP0415019.wiff

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
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.35
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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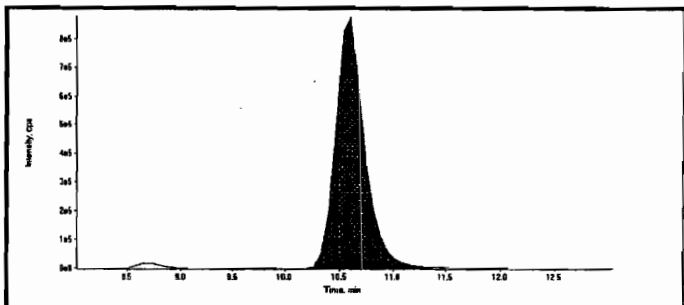
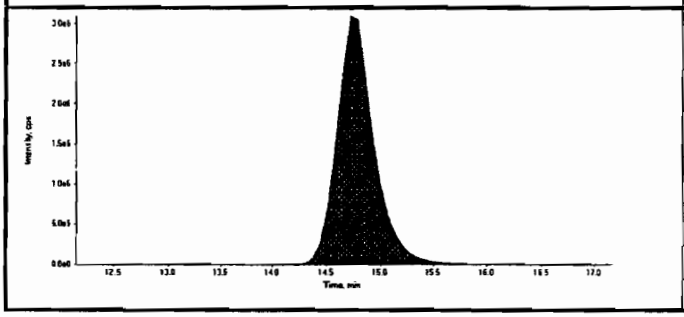
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

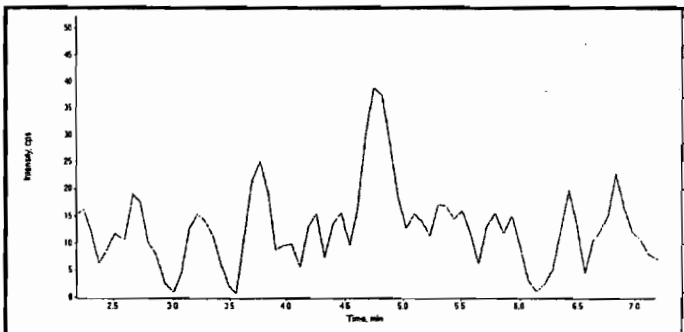
Data File	EXP0415019.wiff	**Acquisition Date**	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



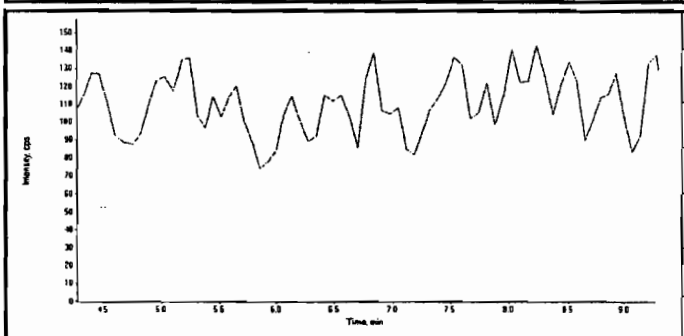
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	75000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMW 04/23/10 LCW 4/23/10

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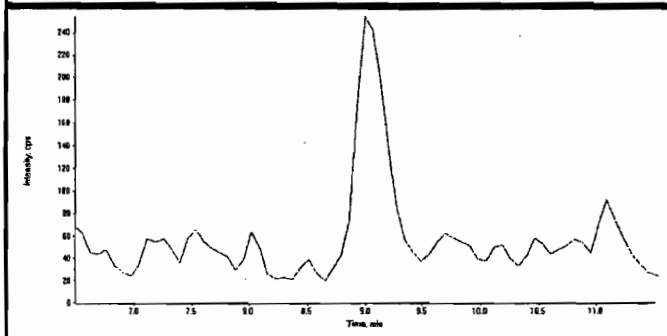
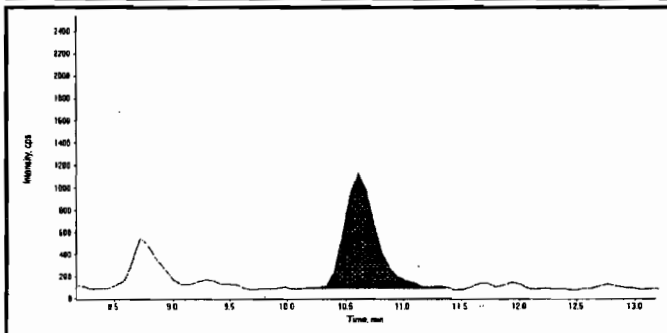
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

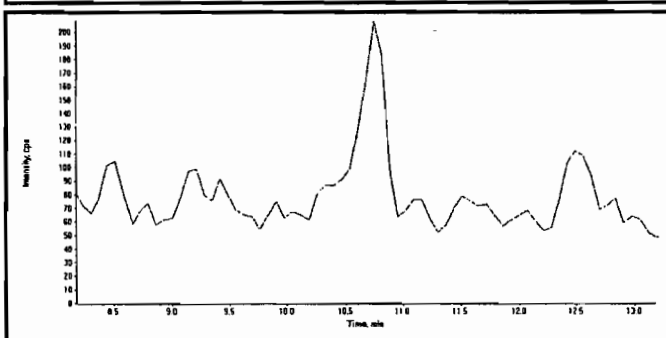
Data File	EXP0415019.wiff	**Acquisition Date**	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



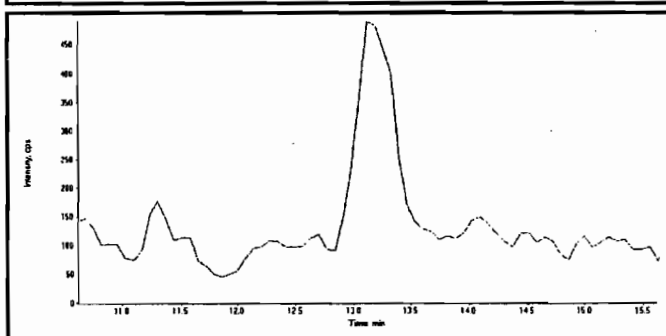
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.08e+004
Manual Modification	No
Amount:	4.35 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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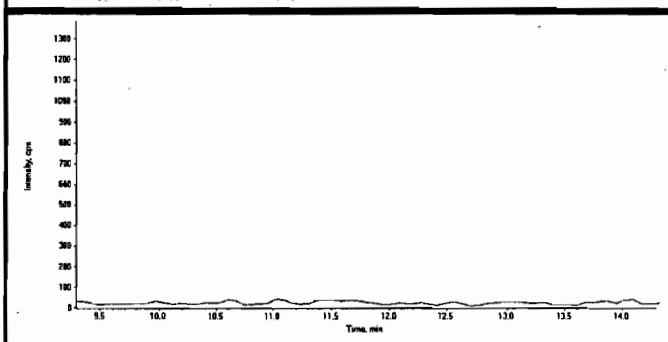
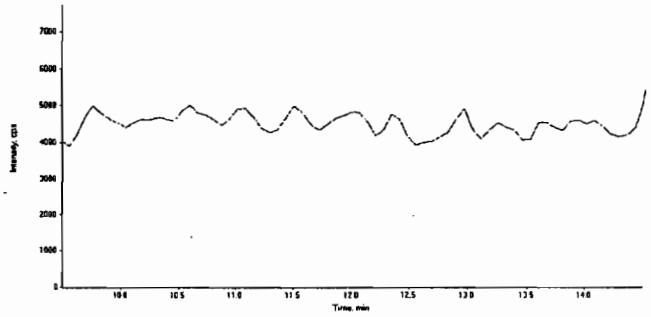
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

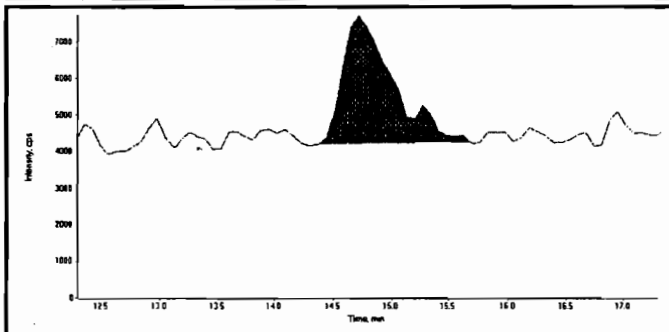
Data File	EXP0415019.wiff	**Acquisition Date**	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



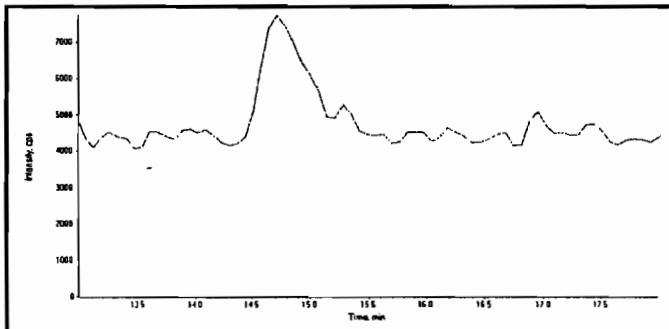
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.07e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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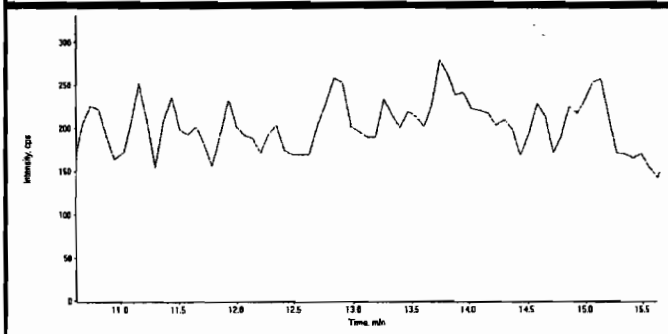
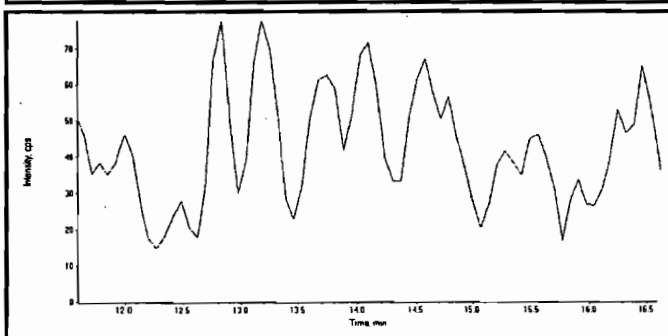
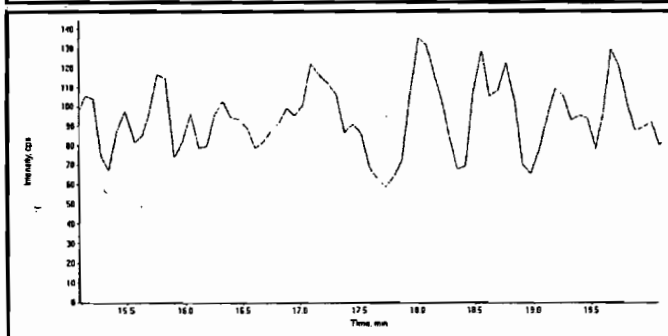
Data File	EXP0415019.wiff	**Acquisition Date**	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



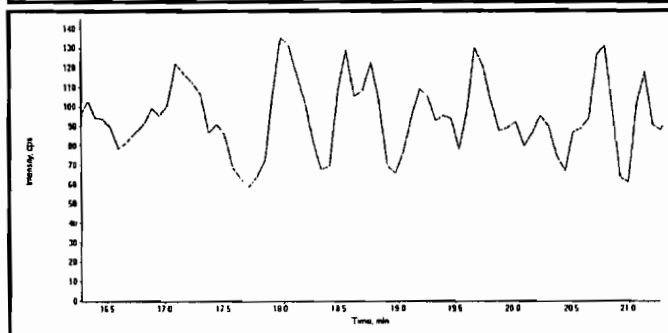
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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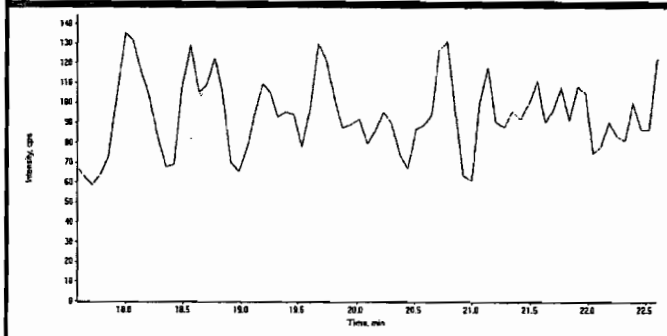
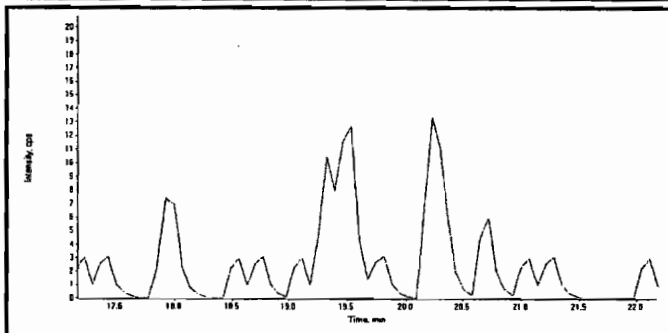
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415019.wiff	**Acquisition Date**	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 15–APR–10 18:46

GEL Data File: EXP0415021.wiff

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
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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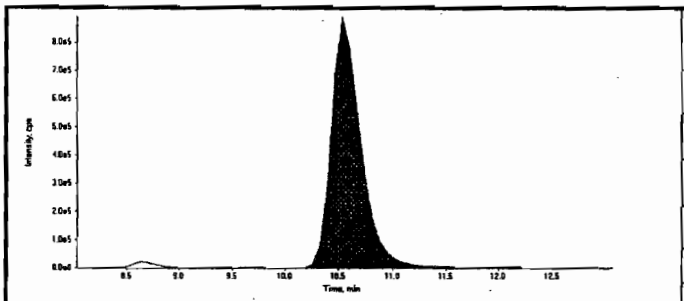
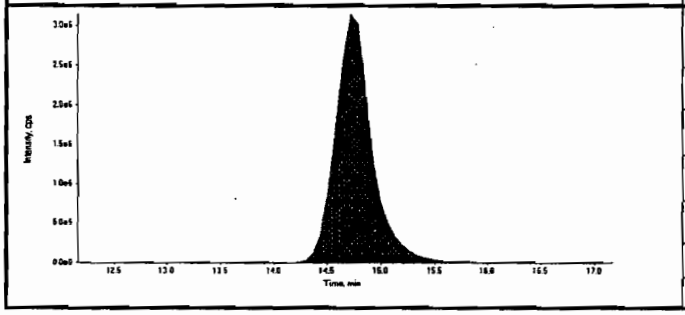
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

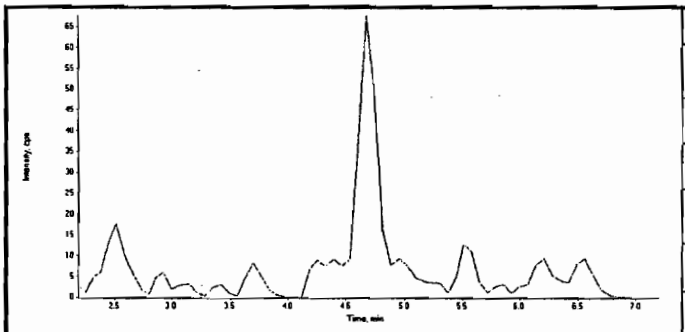
Data File	EXP0415021.wiff	**Acquisition Date**	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



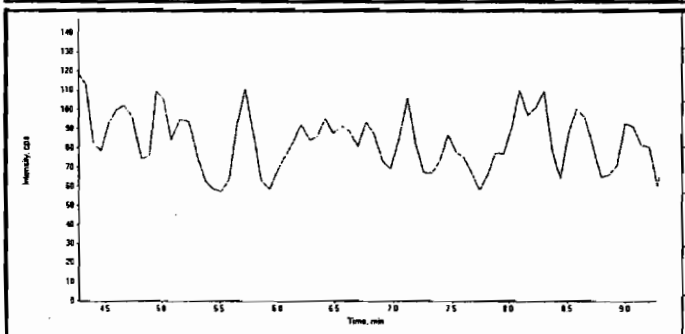
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	74400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmw 04/23/10 Lan 4/23/10

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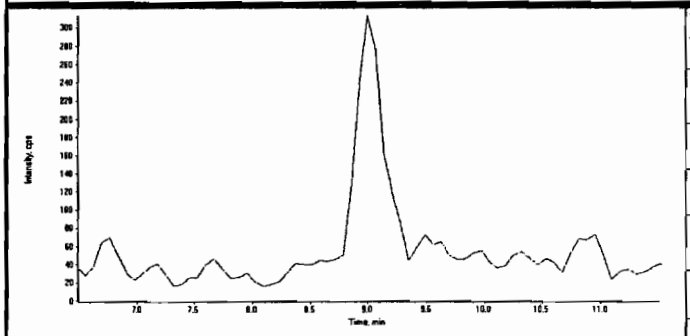
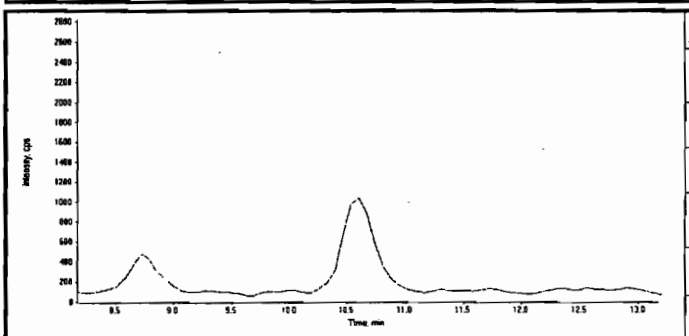
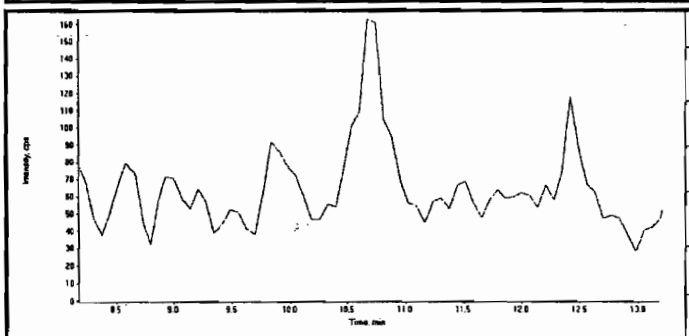
Data File	EXP0415021.wiff	**Acquisition Date**	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



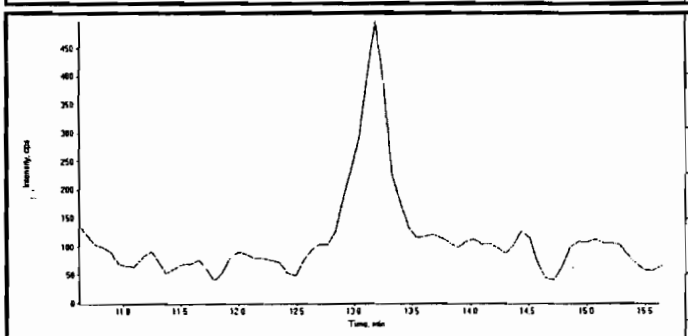
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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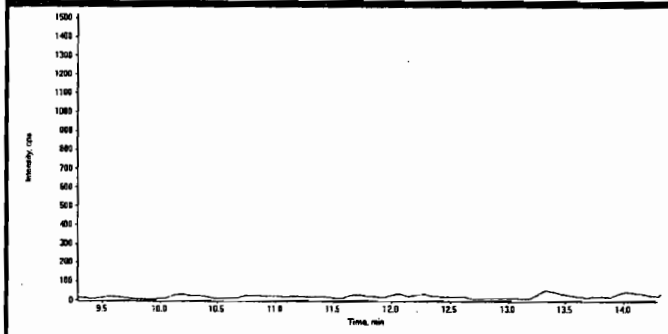
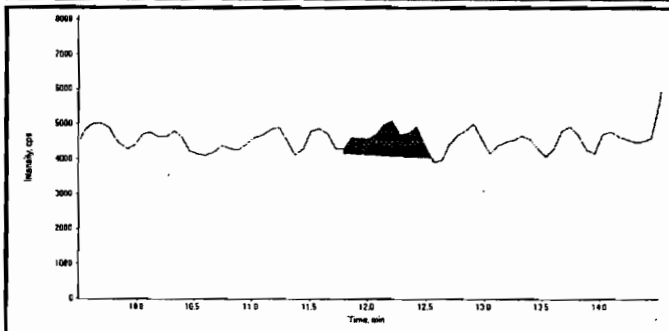
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

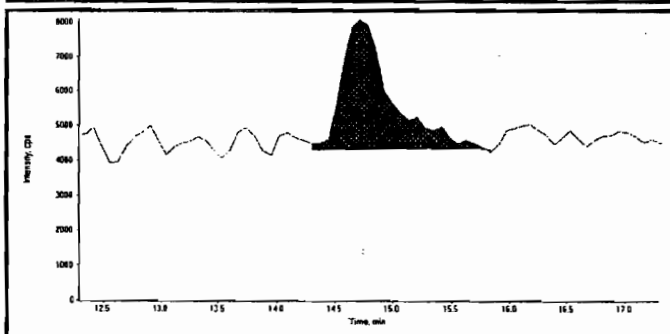
Data File	EXP0415021.wiff	**Acquisition Date**	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



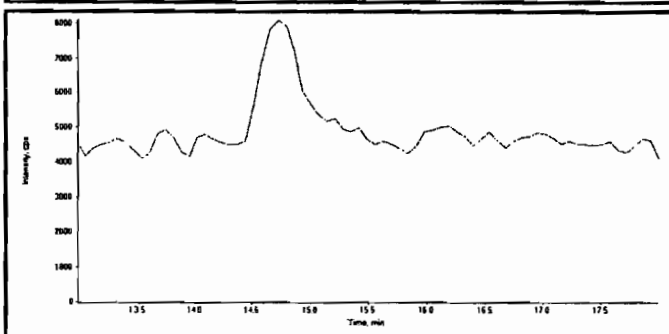
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	2.76e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.14e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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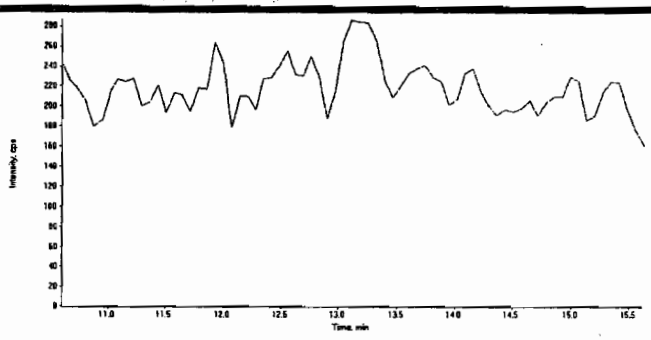
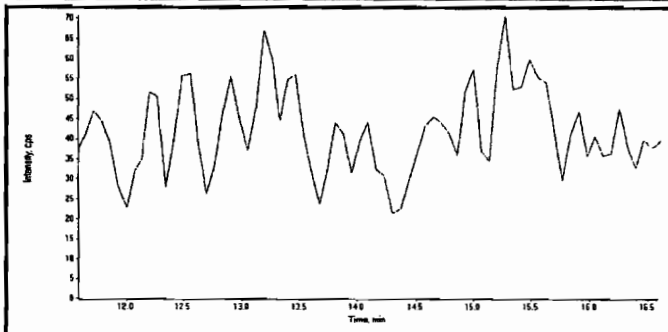
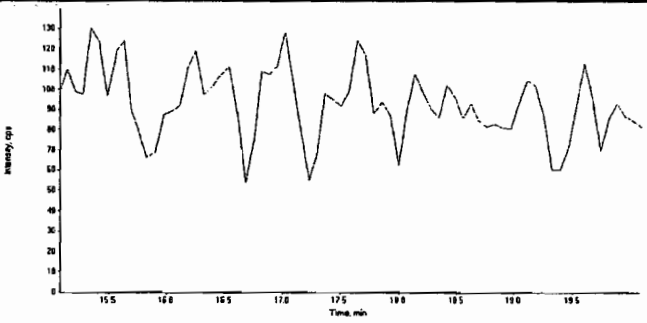
Data File	EXP0415021.wiff	**Acquisition Date**	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



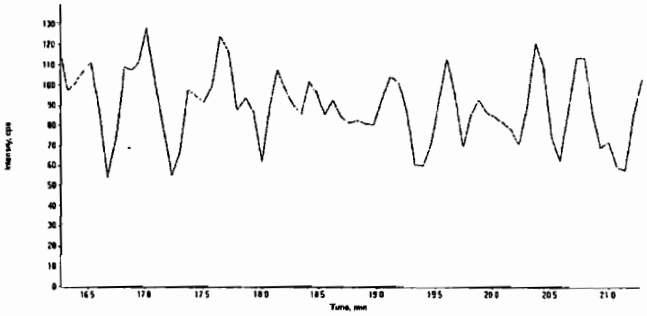
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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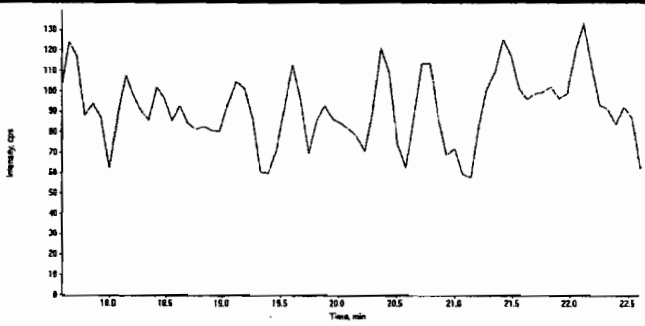
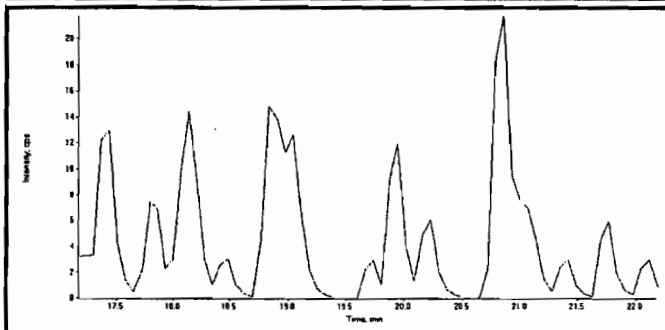
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415021.wiff	**Acquisition Date**	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 15-APR-10 20:04

GEL Data File: EXP0415024.wiff

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
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.38
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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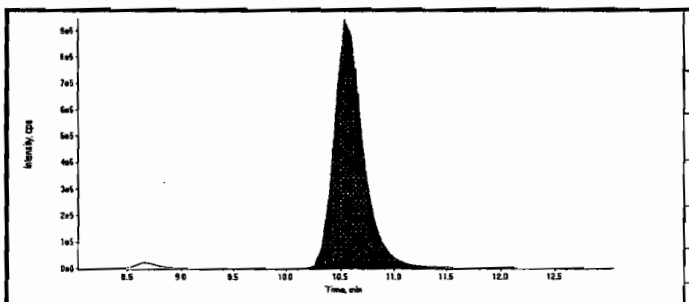
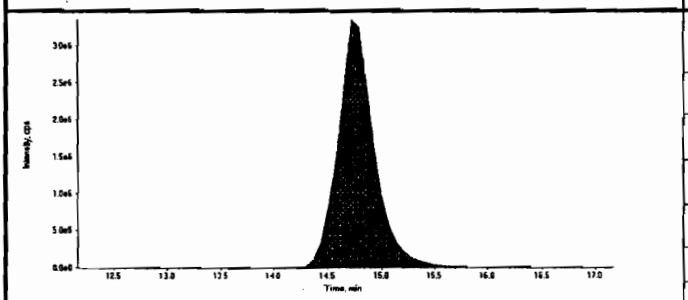
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

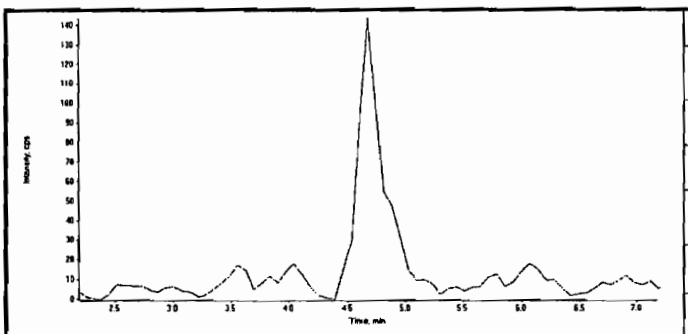
Data File	EXP0415024.wiff	**Acquisition Date**	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



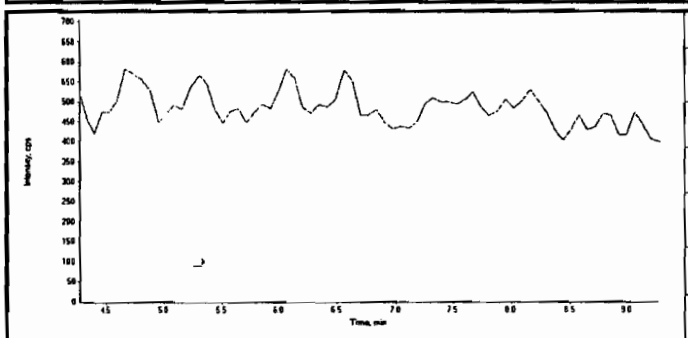
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	78900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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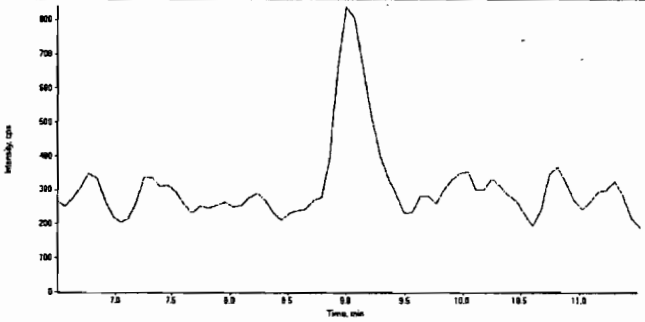
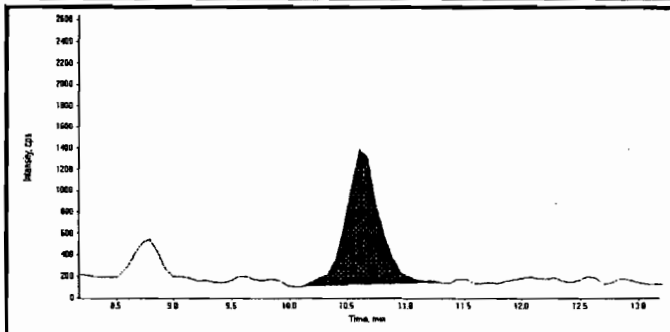
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

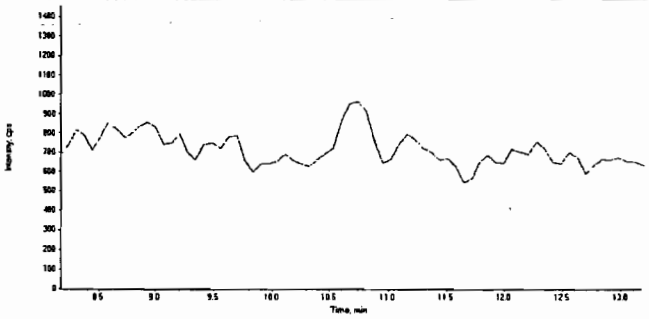
Data File	EXP0415024.wiff	**Acquisition Date**	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



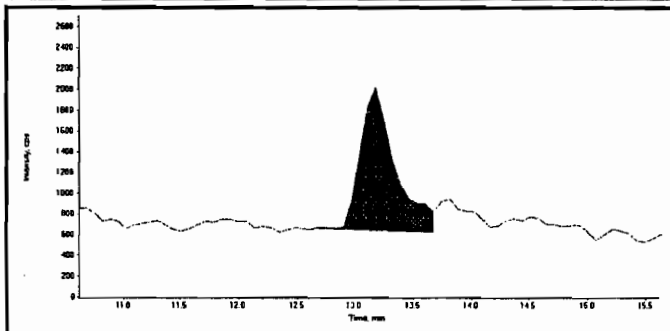
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.58e+004
Manual Modification	No
Amount:	4.38 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.92e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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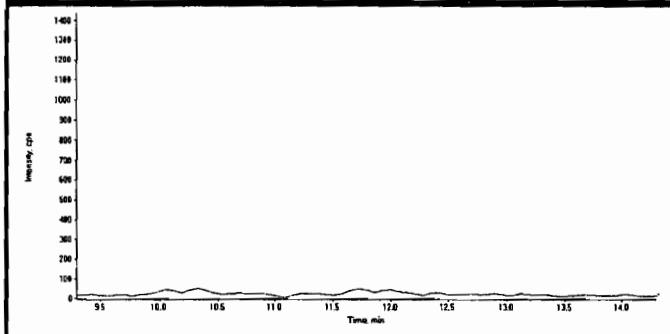
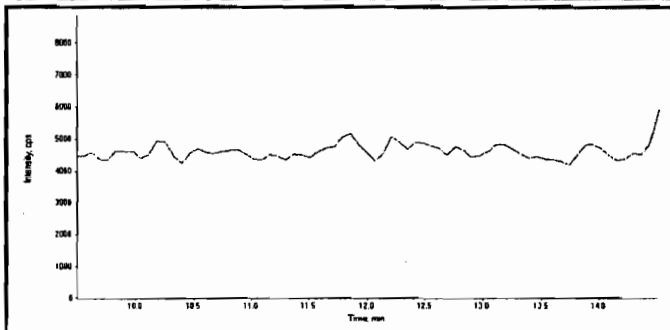
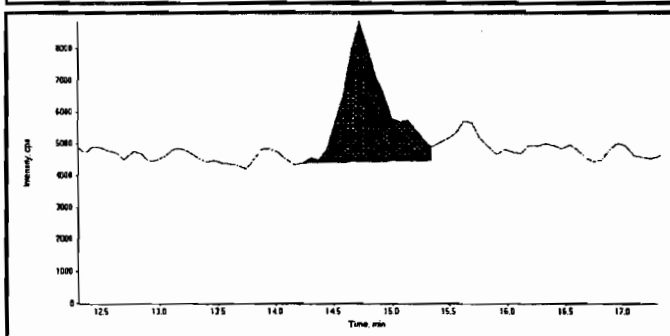
Data File	EXP0415024.wiff	**Acquisition Date**	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



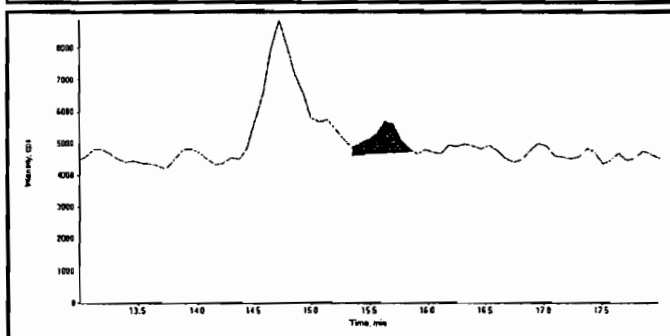
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.12e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.80e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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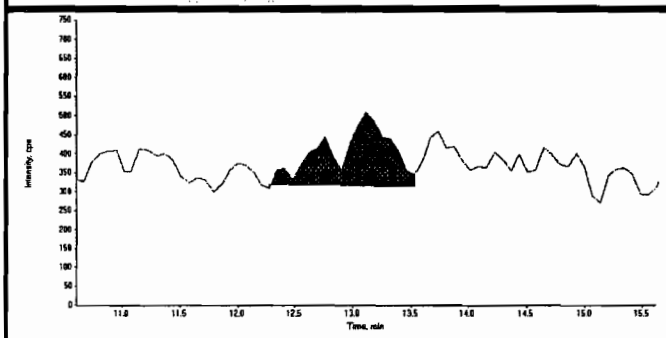
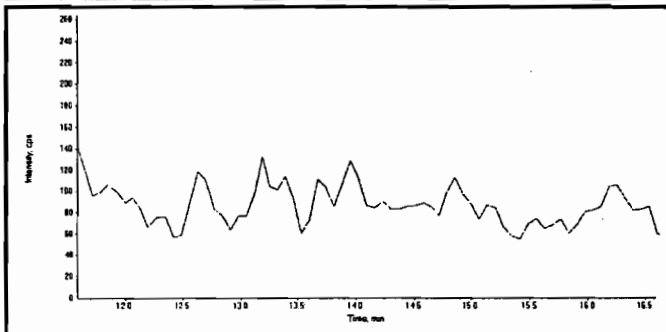
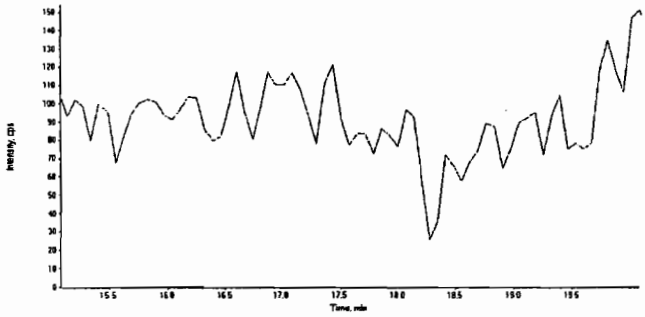
Data File	EXP0415024.wiff	**Acquisition Date**	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



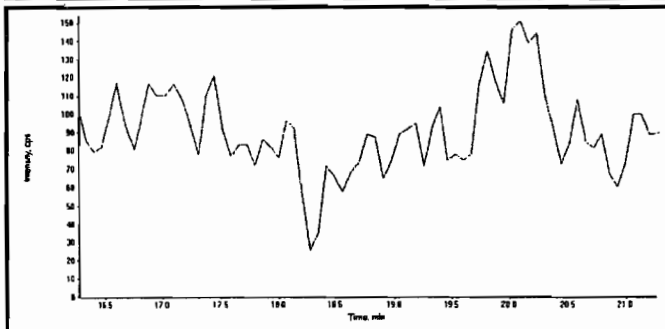
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	6.87e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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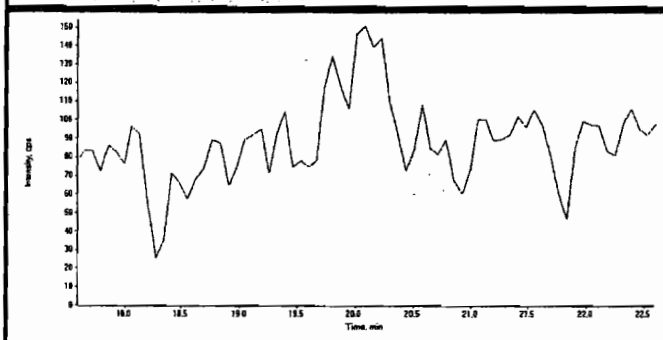
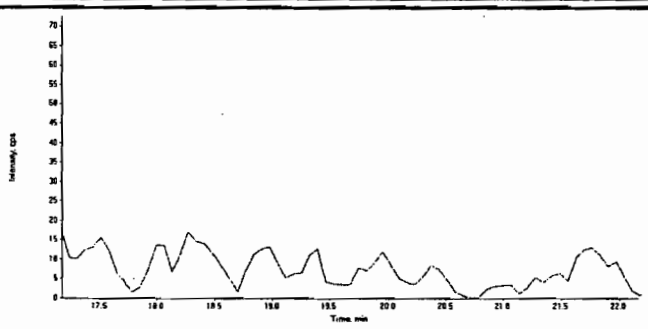
Data File	EXP0415024.wiff	**Acquisition Date**	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 15-APR-10 23:05

GEL Data File: EXP0415031.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-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

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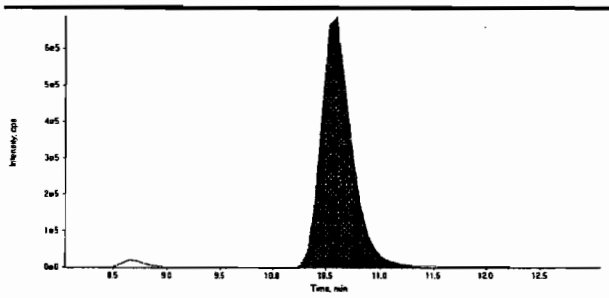
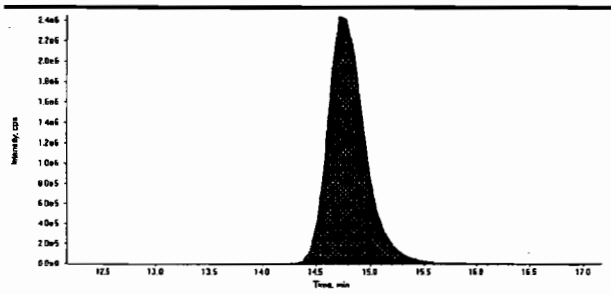
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

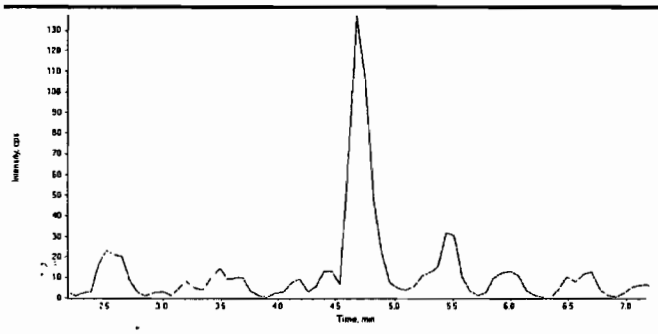
Data File	EXP0415031.wiff	**Acquisition Date**	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



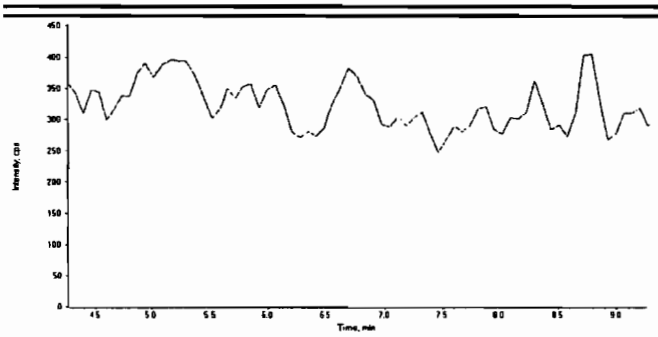
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	13600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	59500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Sar 4/23/10

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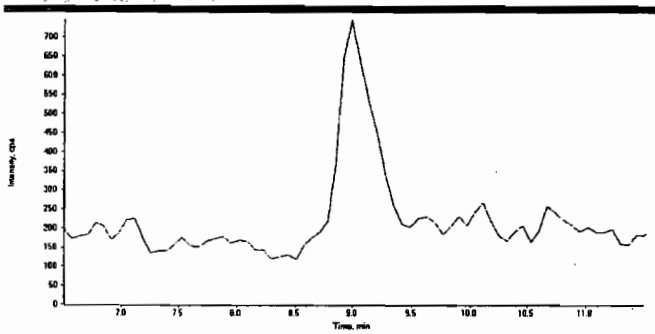
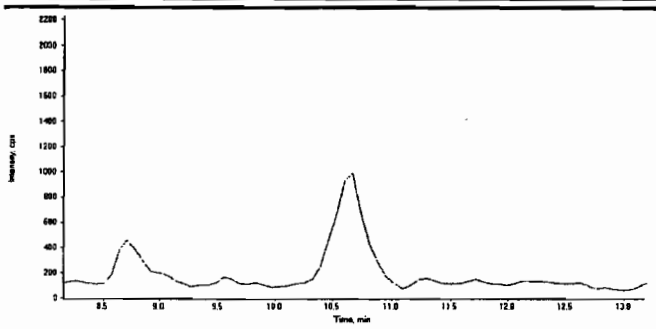
Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

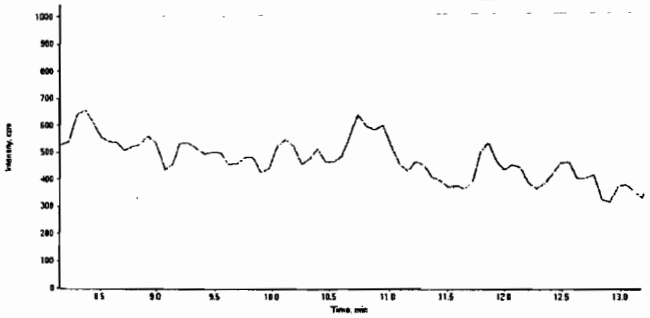
Data File	EXP0415031.wiff	**Acquisition Date**	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



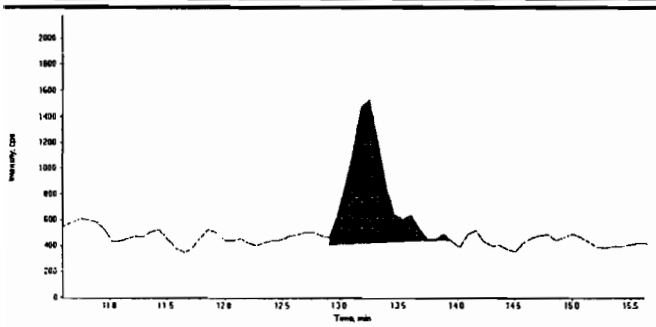
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	2.37e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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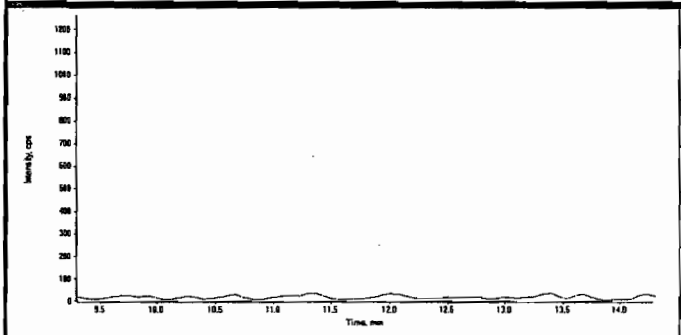
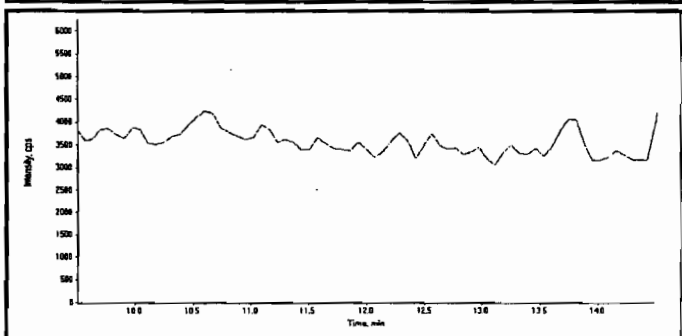
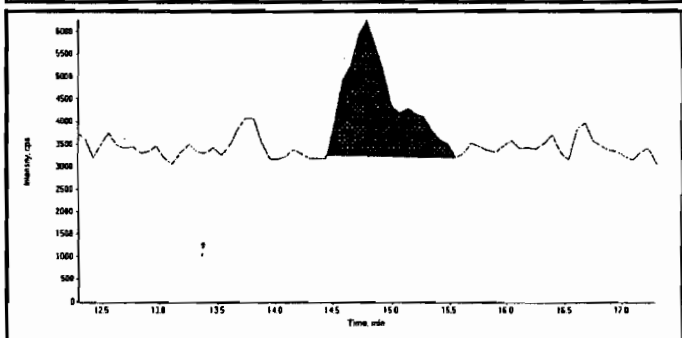
Data File	EXP0415031.wiff	**Acquisition Date**	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



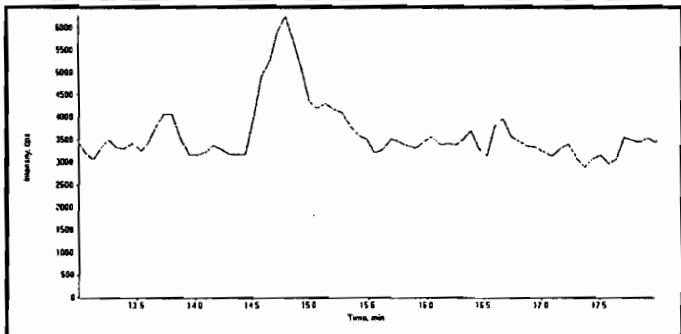
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	8.79e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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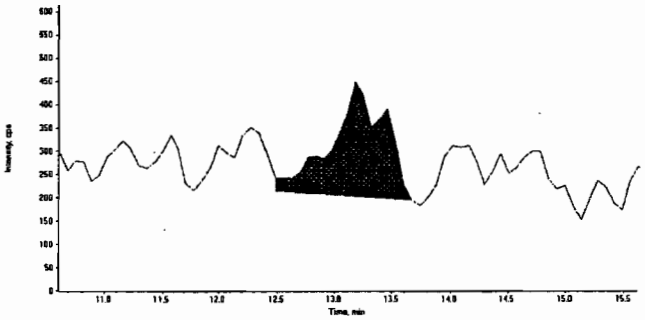
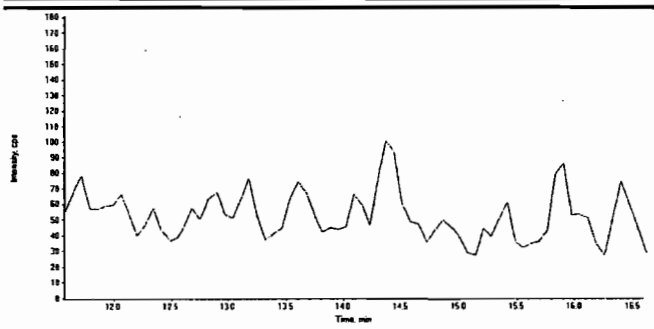
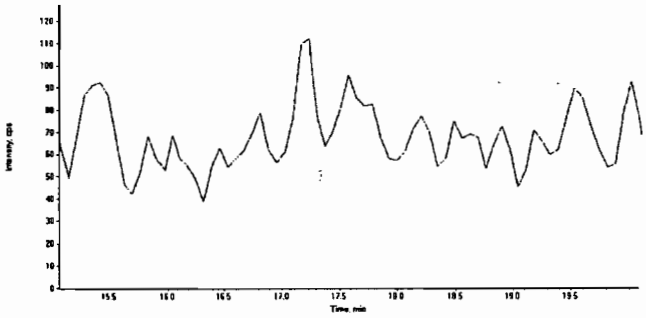
Data File	EXP0415031.wiff	**Acquisition Date**	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



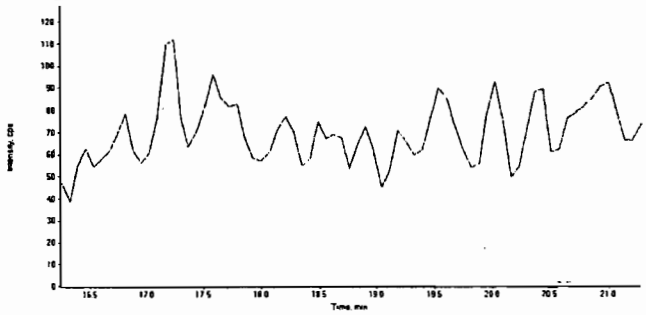
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	8.08e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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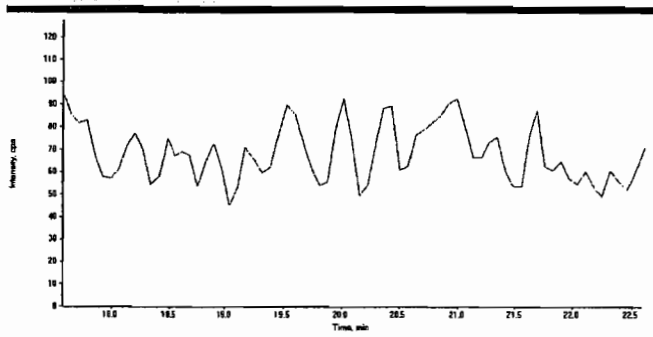
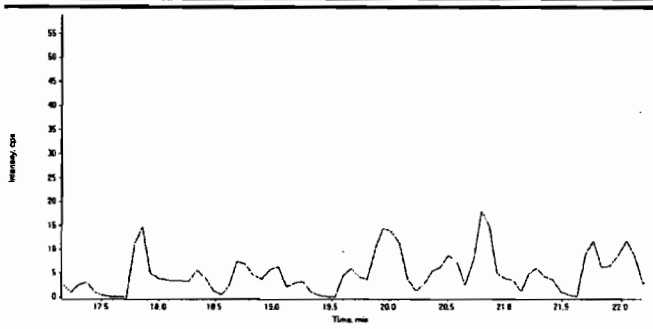
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415031.wiff	**Acquisition Date**	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 16–APR–10 04:43

GEL Data File: EXP0415044.wiff

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
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
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	4.4
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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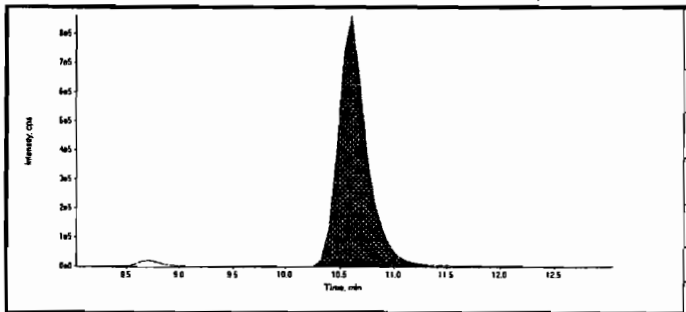
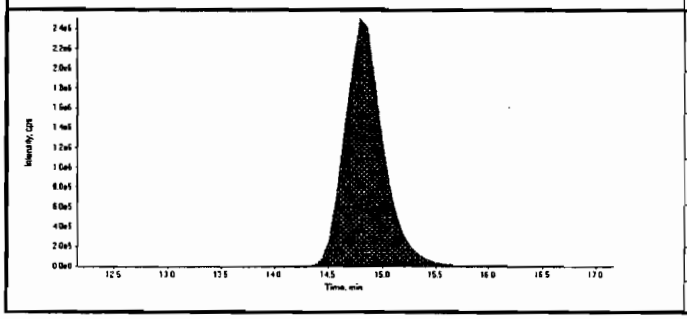
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

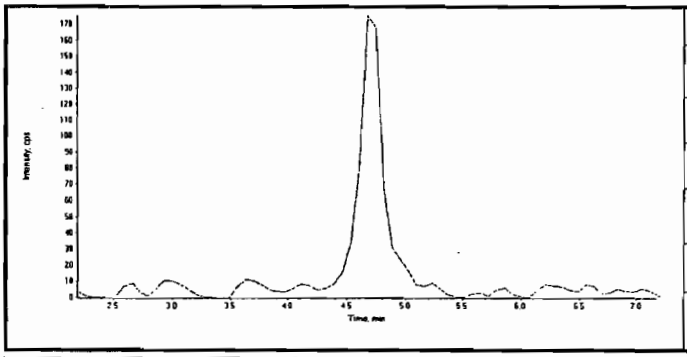
Data File	EXP0415044.wiff	**Acquisition Date**	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



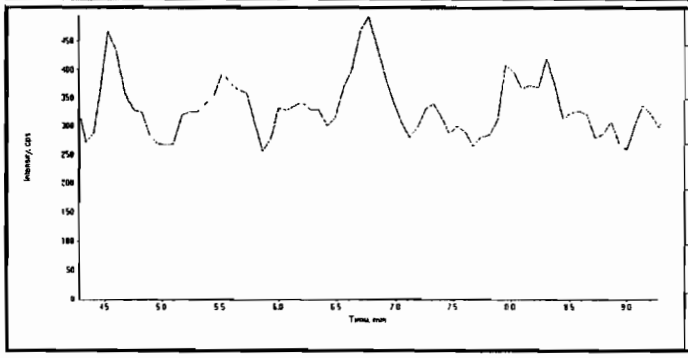
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	62400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmw 04/23/10

Lar 4/23/10

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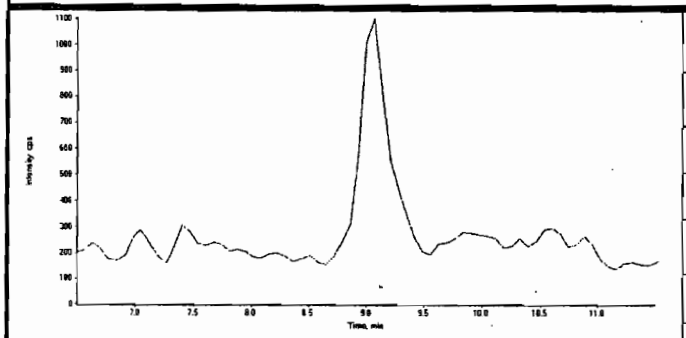
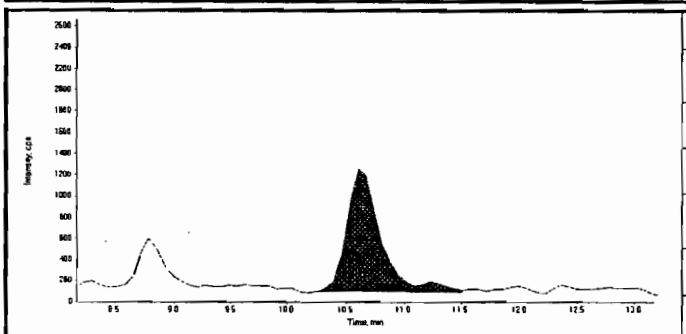
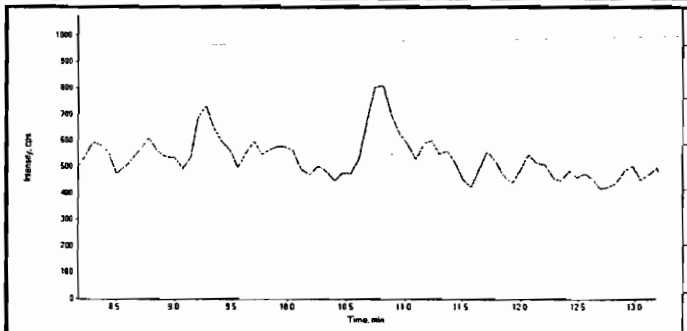
Data File	EXP0415044.wiff	**Acquisition Date**	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



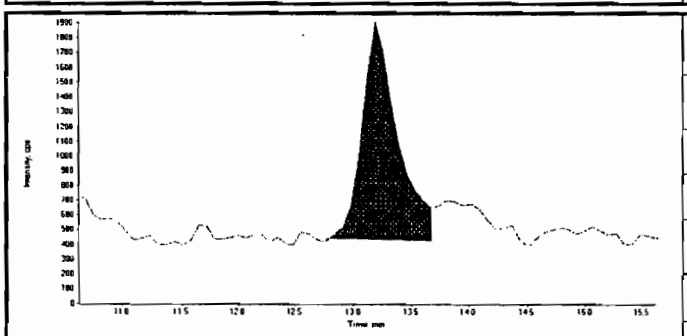
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.46e+004
Manual Modification	No
Amount:	4.40 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	3.19e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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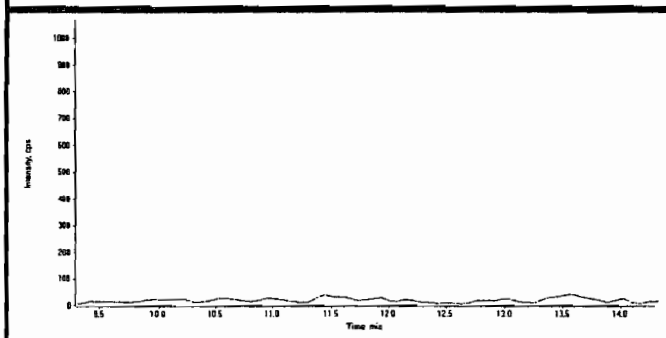
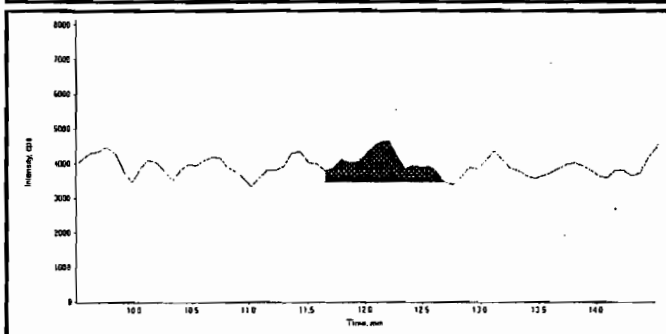
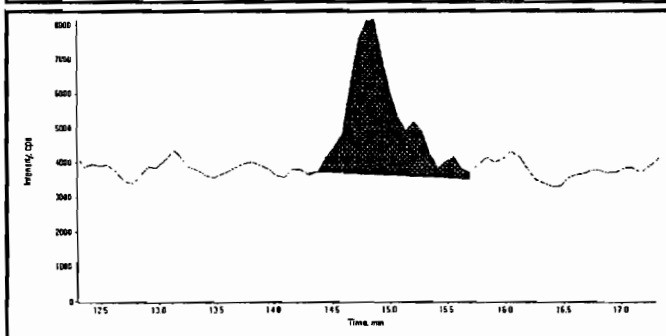
Data File	EXP0415044.wiff	**Acquisition Date**	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



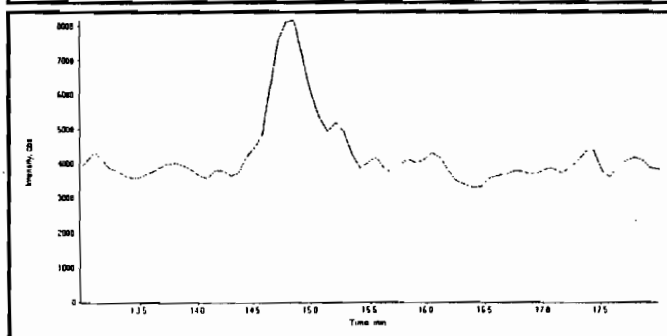
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.12e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	1.36e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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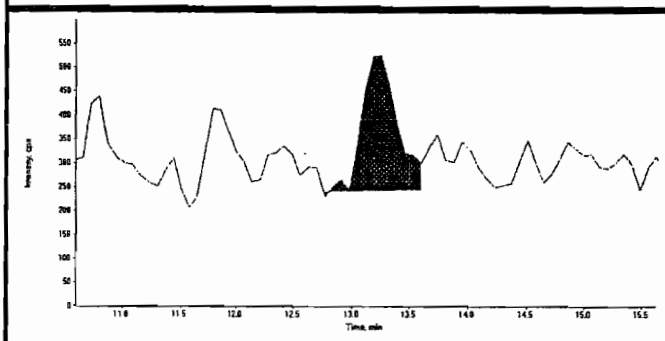
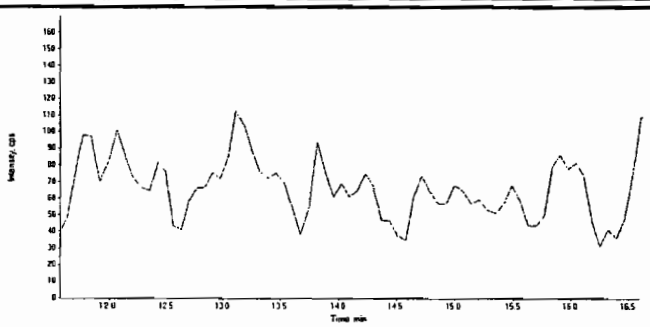
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

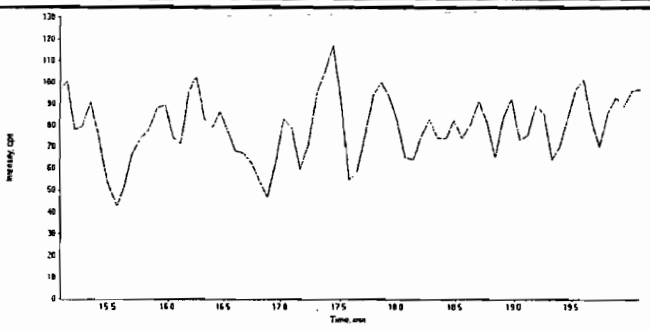
Data File	EXP0415044.wiff	**Acquisition Date**	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



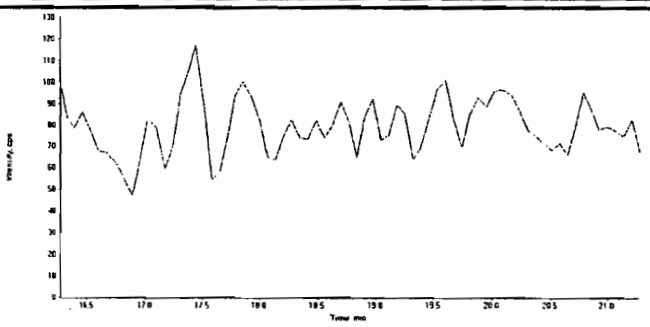
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	6.06e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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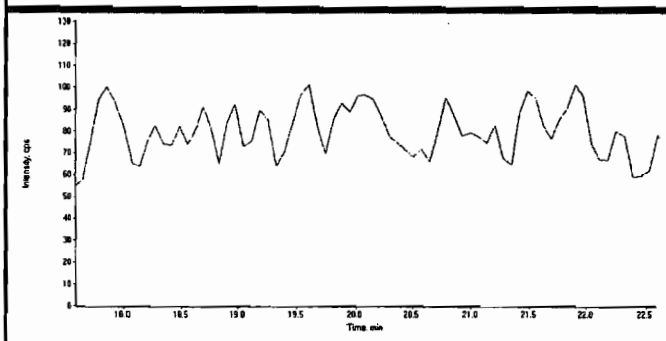
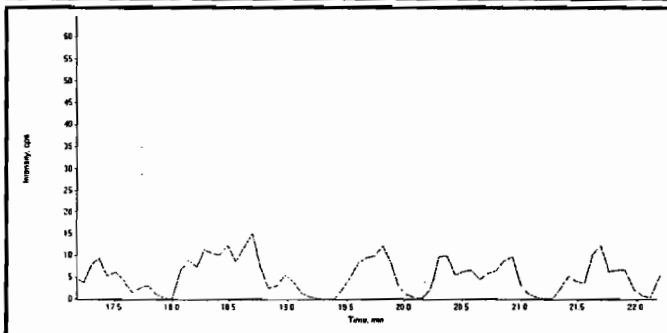
Data File	EXP0415044.wiff	**Acquisition Date**	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 16-APR-10 10:20

GEL Data File: EXP0415057.wiff

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
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.4
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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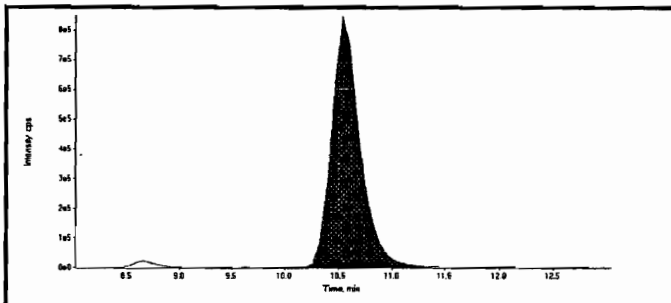
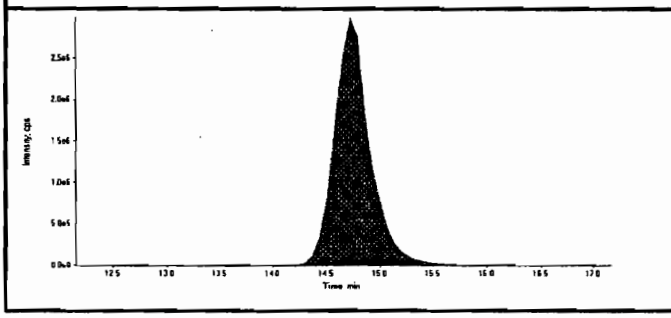
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

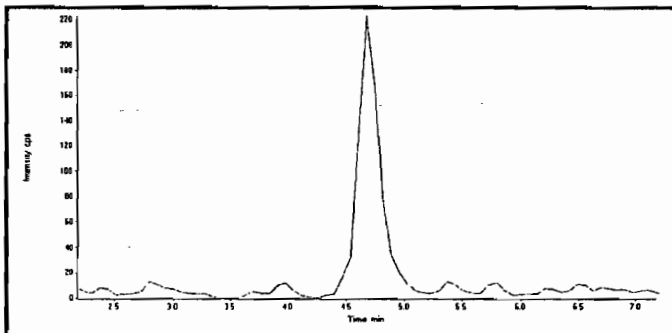
Data File	EXP0415057.wiff	**Acquisition Date**	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



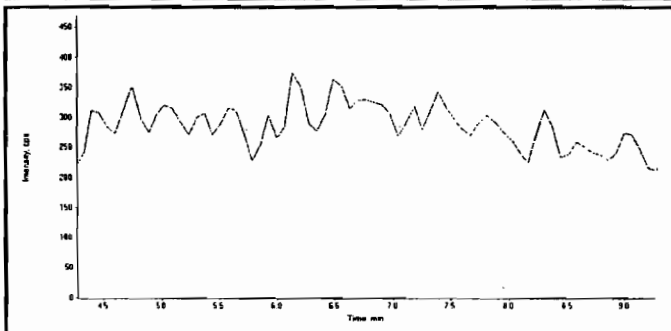
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	69200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMK 04/23/10 Lcn 4/23/10

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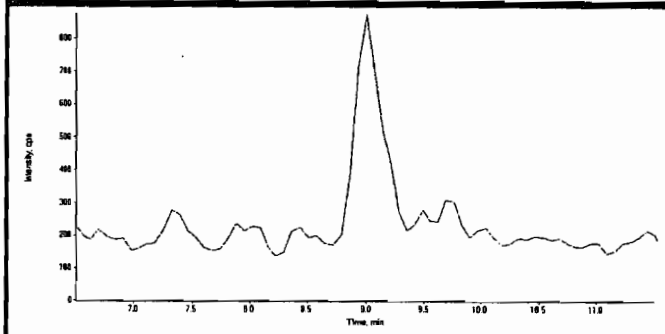
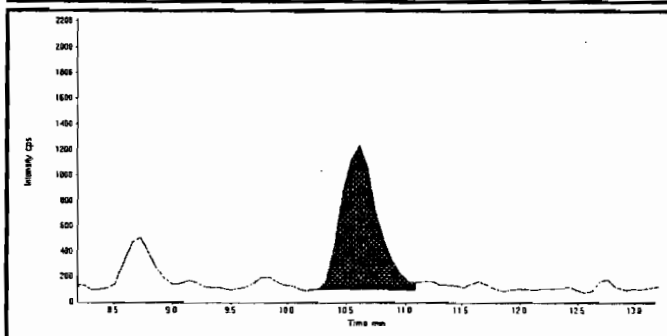
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

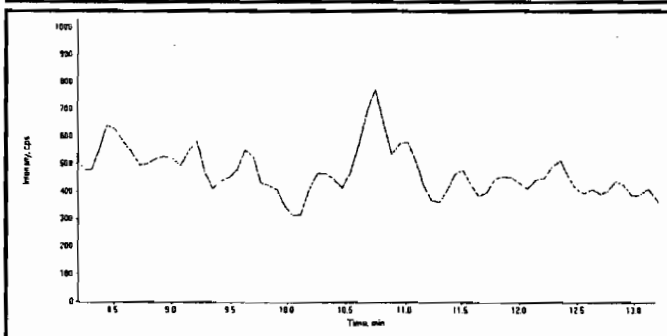
Data File	EXP0415057.wiff	**Acquisition Date**	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



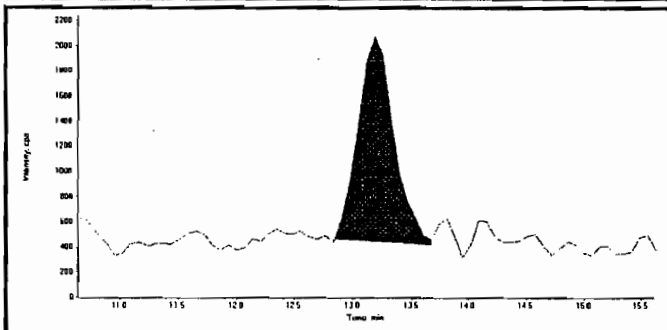
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.47e+004
Manual Modification	No
Amount:	4.40 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	3.48e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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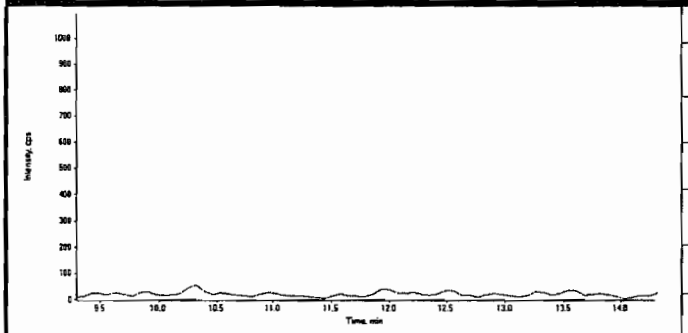
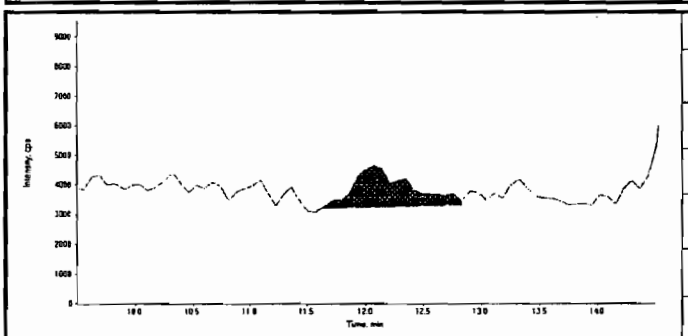
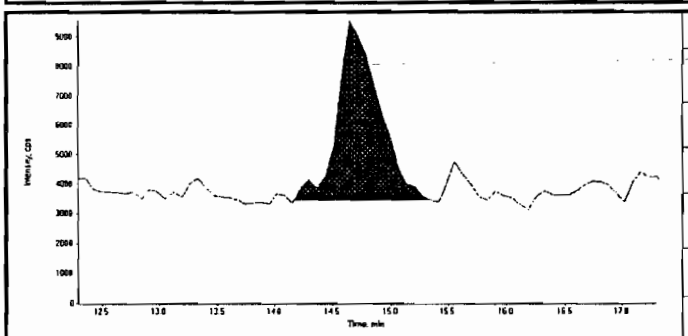
Data File	EXP0415057.wiff	**Acquisition Date**	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



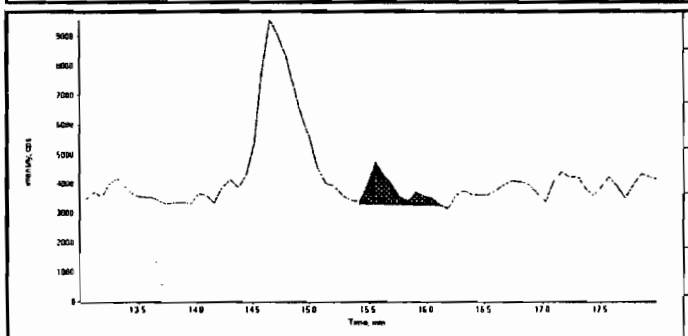
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	5.00e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.6
Area Counts:	1.53e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	2.41e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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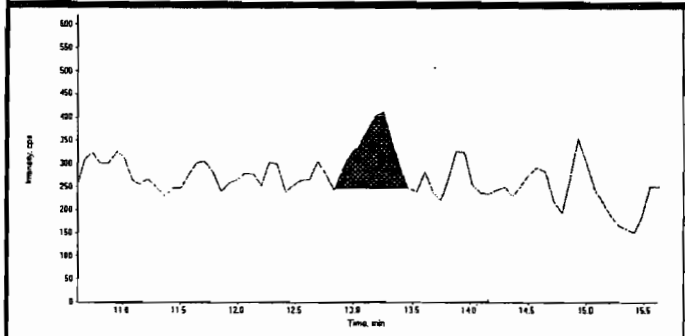
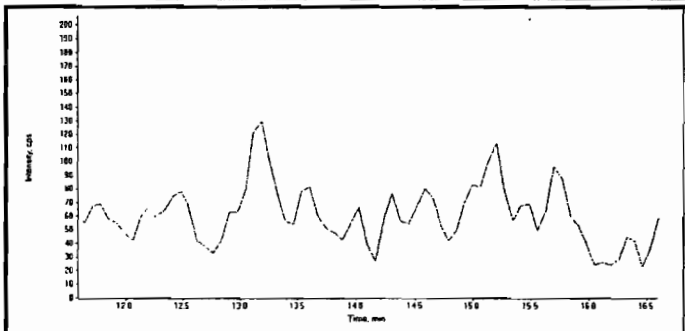
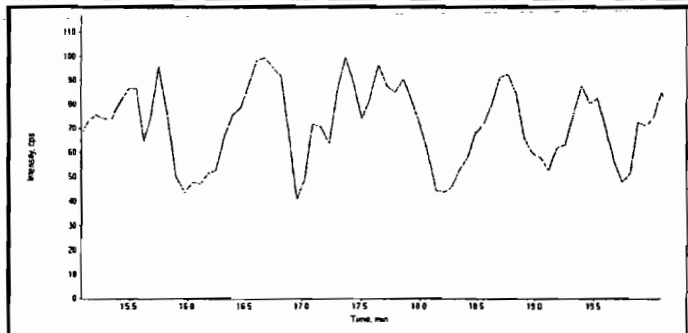
Data File	EXP0415057.wiff	**Acquisition Date**	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



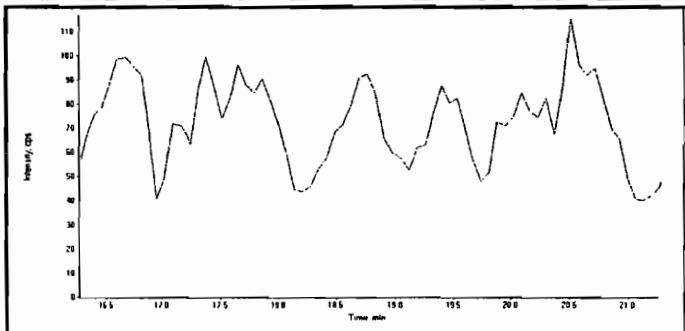
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	3.37e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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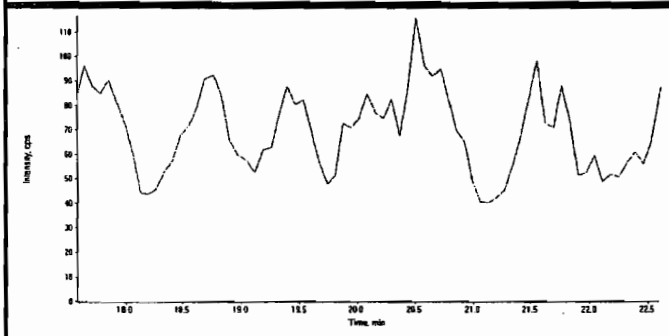
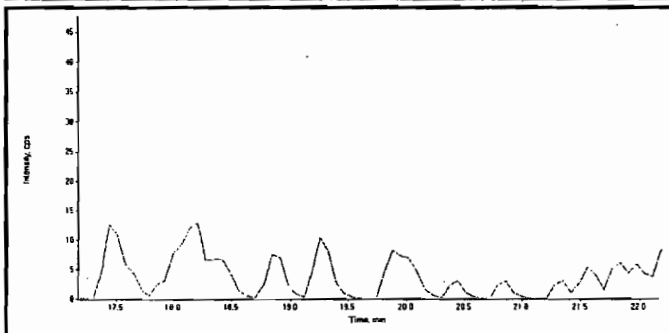
Data File	EXP0415057.wiff	**Acquisition Date**	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 16-APR-10 13:23

GEL Data File: EXP0415064.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
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	4.41
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

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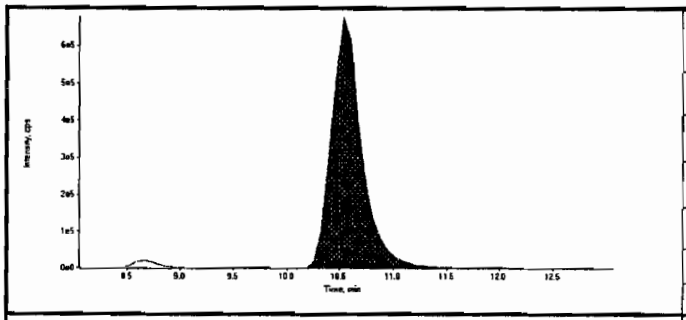
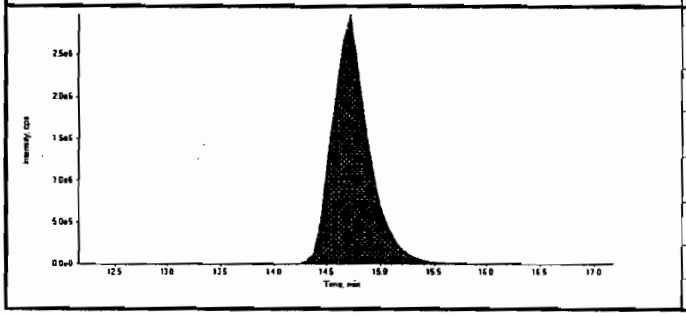
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

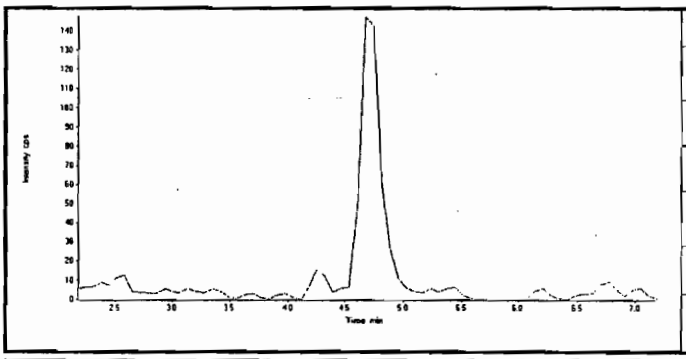
Data File	EXP0415064.wiff	**Acquisition Date**	4/16/2010 1:23:06 PM
Sample Name	XIBLK12	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



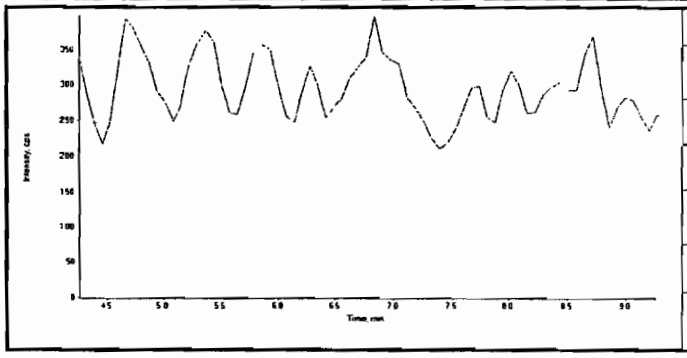
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	70400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmm 04/23/10
Ler 4/23/10

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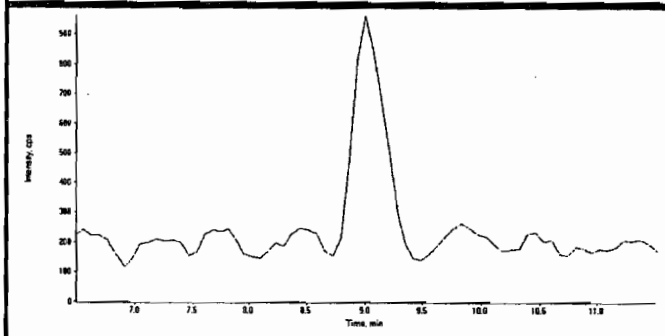
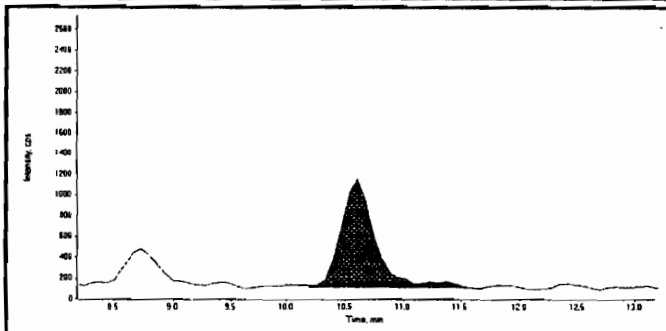
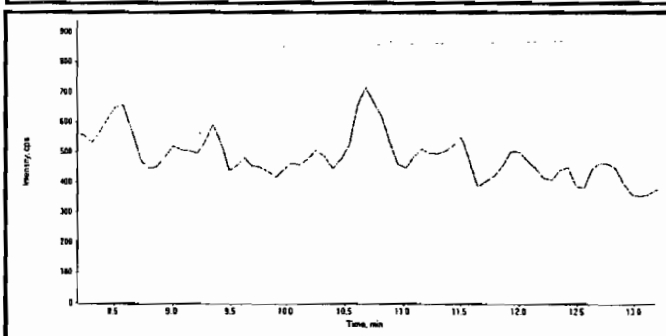
Data File	EXP0415064.wiff	**Acquisition Date**	4/16/2010 1:23:06 PM
Sample Name	XIBLK12	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



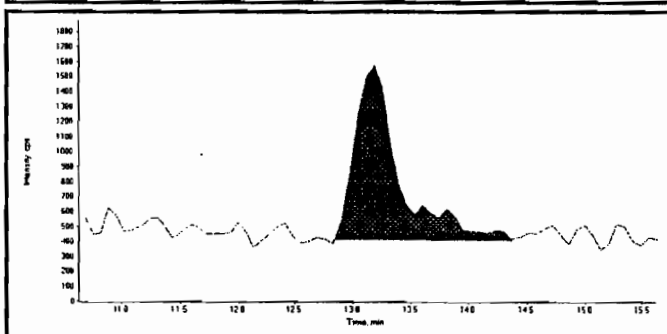
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.21e+004
Manual Modification	No
Amount:	4.41 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	3.14e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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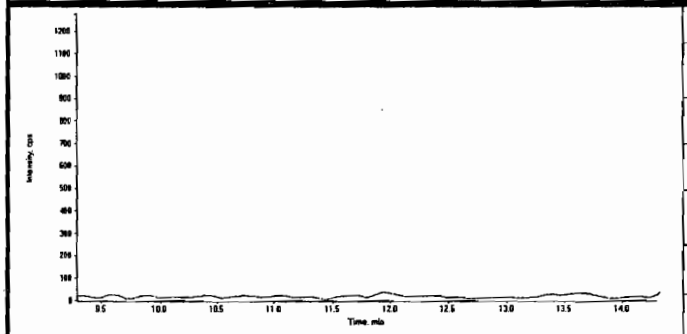
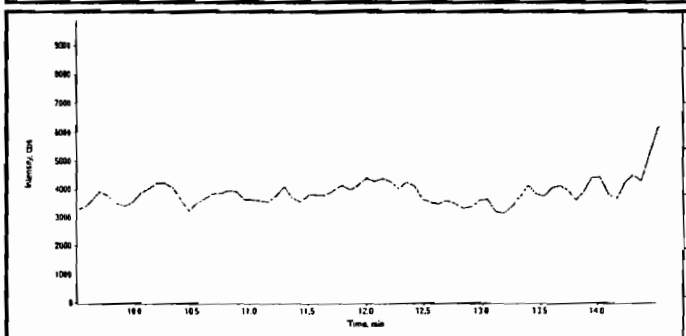
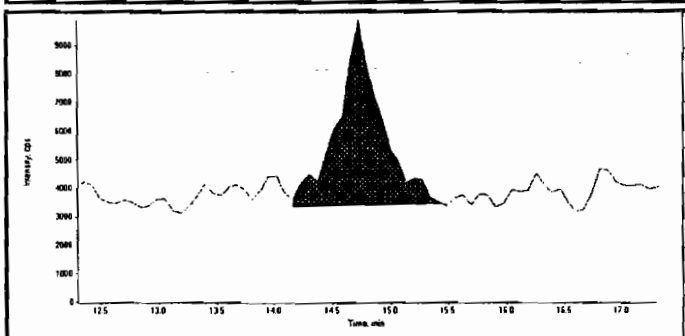
Data File	EXP0415064.wiff	**Acquisition Date**	4/16/2010 1:23:06 PM
Sample Name	XIBLK12	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



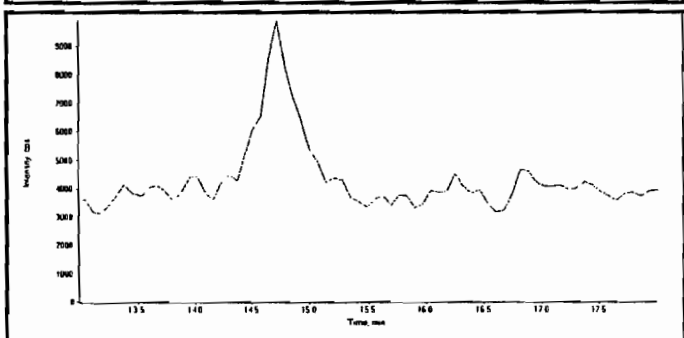
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.72e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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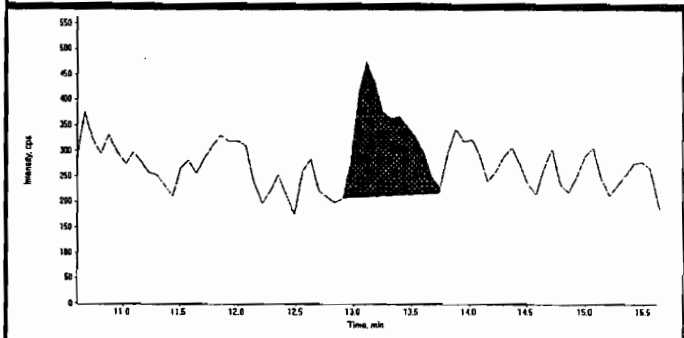
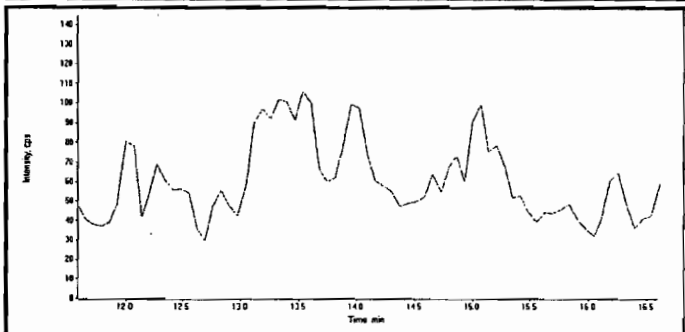
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

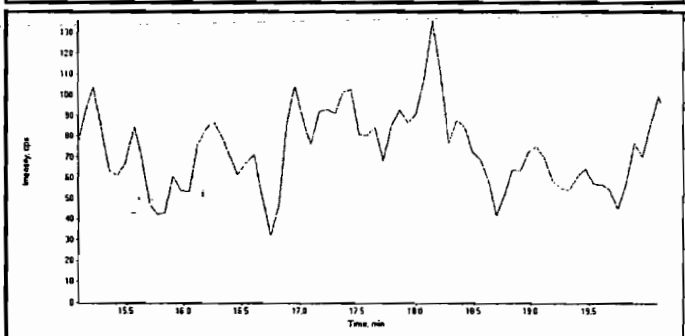
Data File	EXP0415064.wiff	**Acquisition Date**	4/16/2010 1:23:06 PM
Sample Name	XIBLK12	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	6.78e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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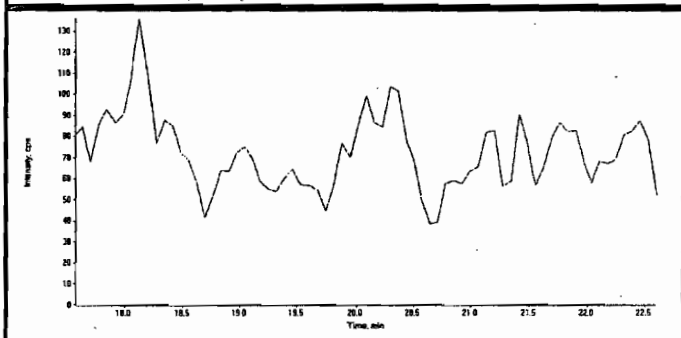
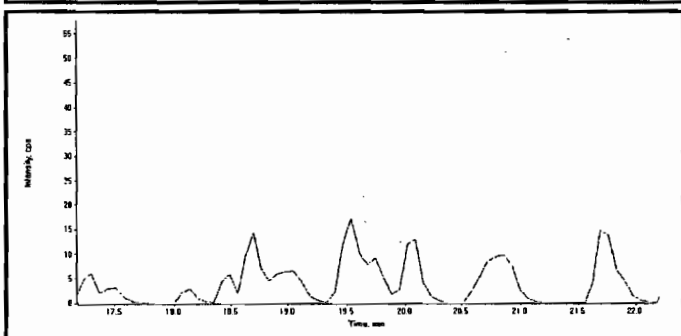
Data File	EXP0415064.wiff	**Acquisition Date**	4/16/2010 1:23:06 PM
Sample Name	XIBLK12	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 16–APR–10 19:00

GEL Data File: EXP0415077.wiff

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
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
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	4.36
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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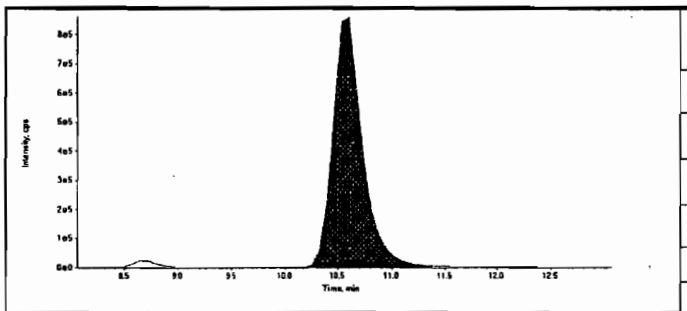
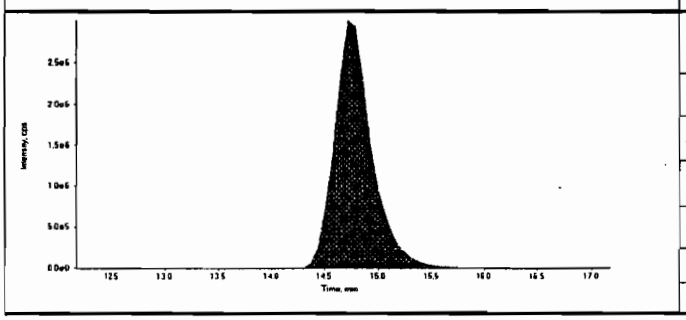
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

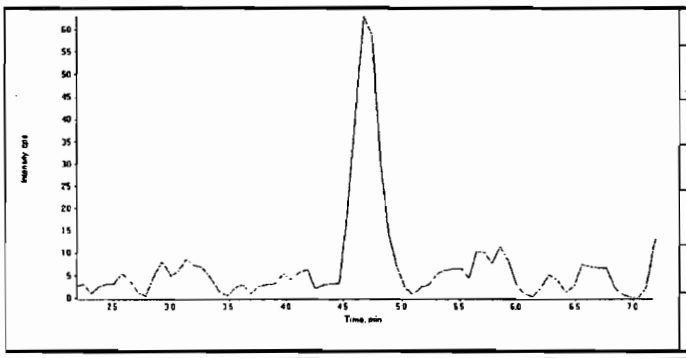
Data File	EXP0415077.wiff	**Acquisition Date**	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



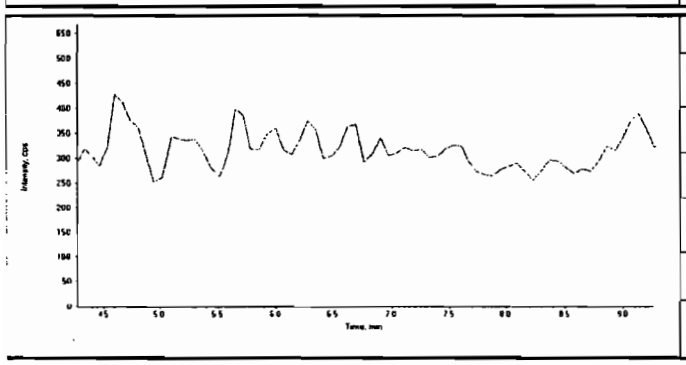
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	72500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hnm 04/23/10

Ster 4/23/10

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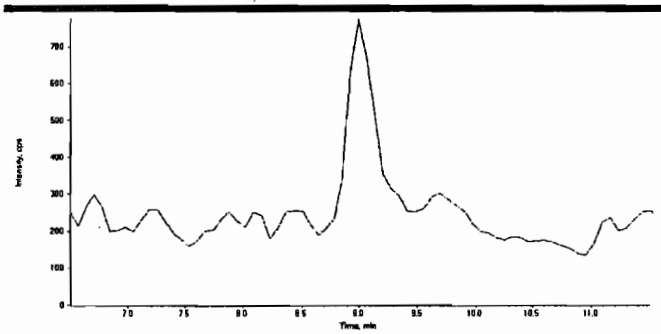
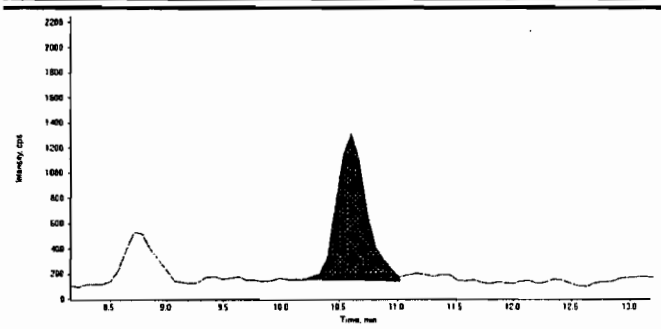
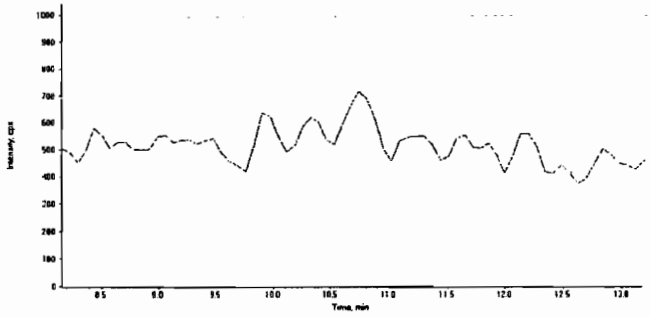
Data File	EXP0415077.wiff	**Acquisition Date**	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



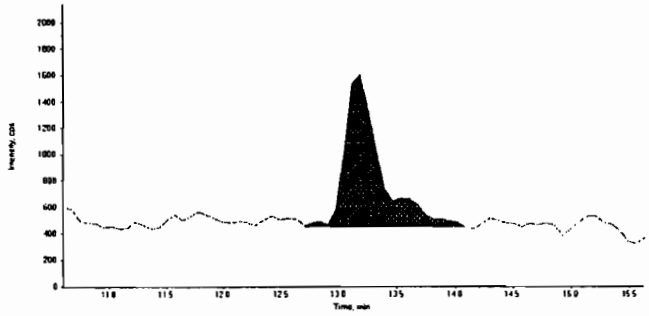
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.14e+004
Manual Modification	No
Amount:	4.36 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.55e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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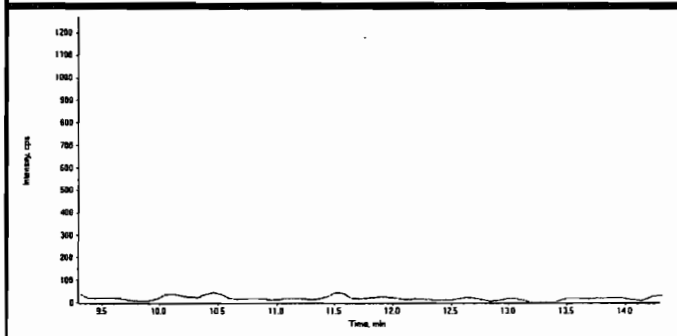
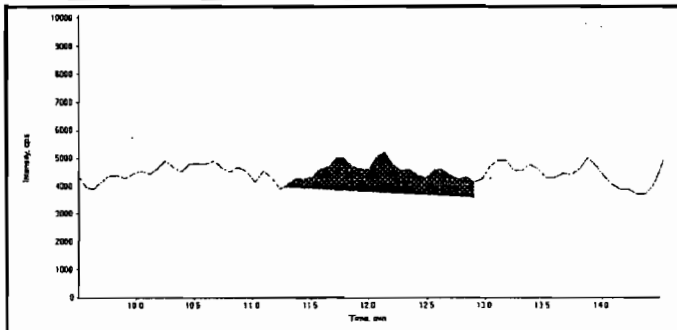
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

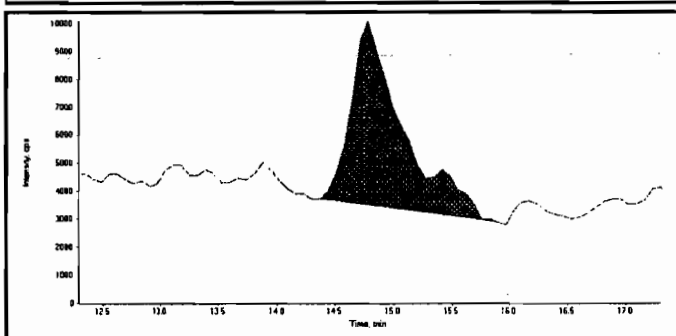
Data File	EXP0415077.wiff	**Acquisition Date**	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



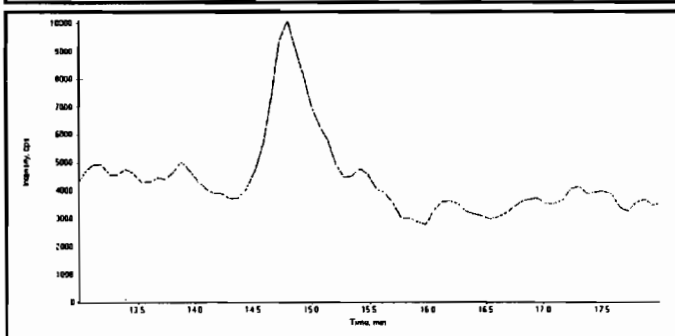
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	8.06e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	2.06e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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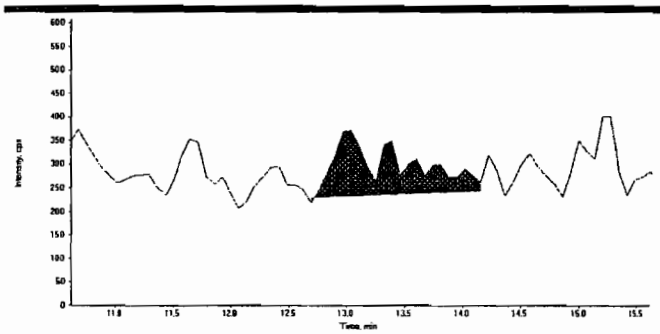
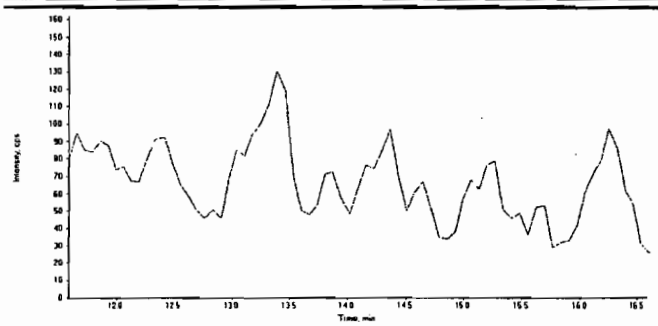
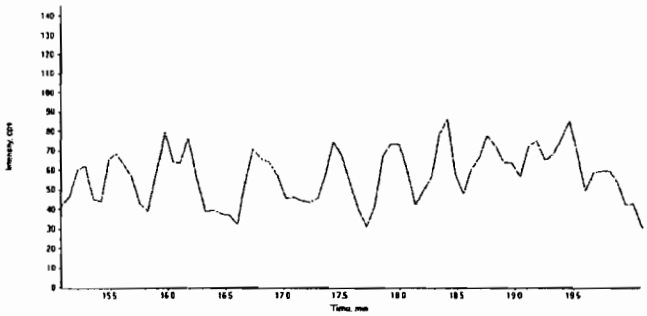
Data File	EXP0415077.wiff	**Acquisition Date**	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



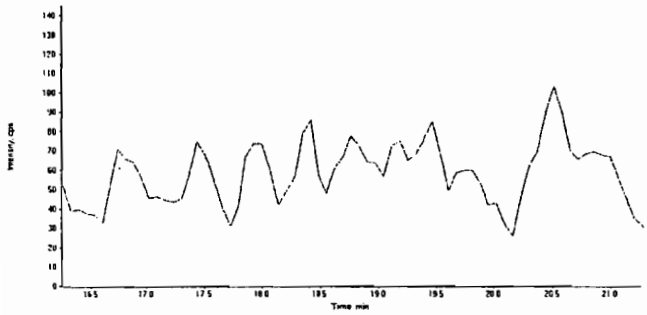
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.0
Area Counts:	5.60e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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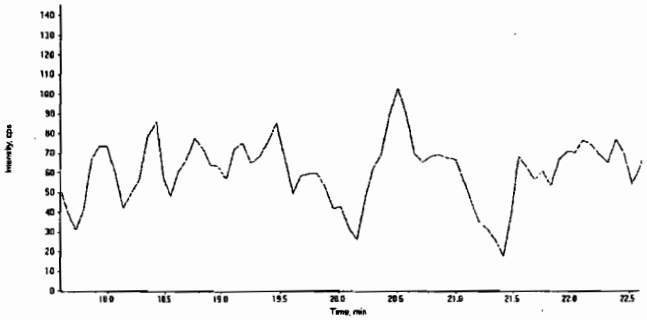
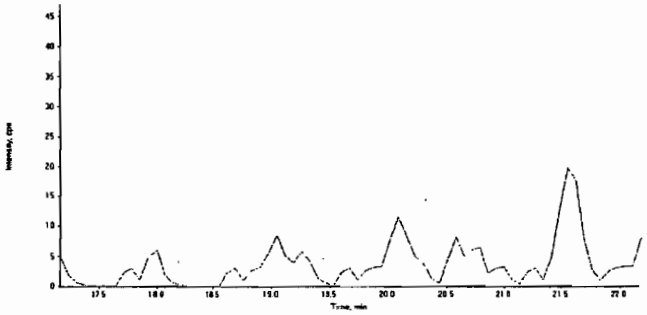
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415077.wiff	**Acquisition Date**	4/16/2010 7:00:54 PM
Sample Name	XIBLK13	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 09–APR–10 09:36

GEL Data File: EXS04090010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

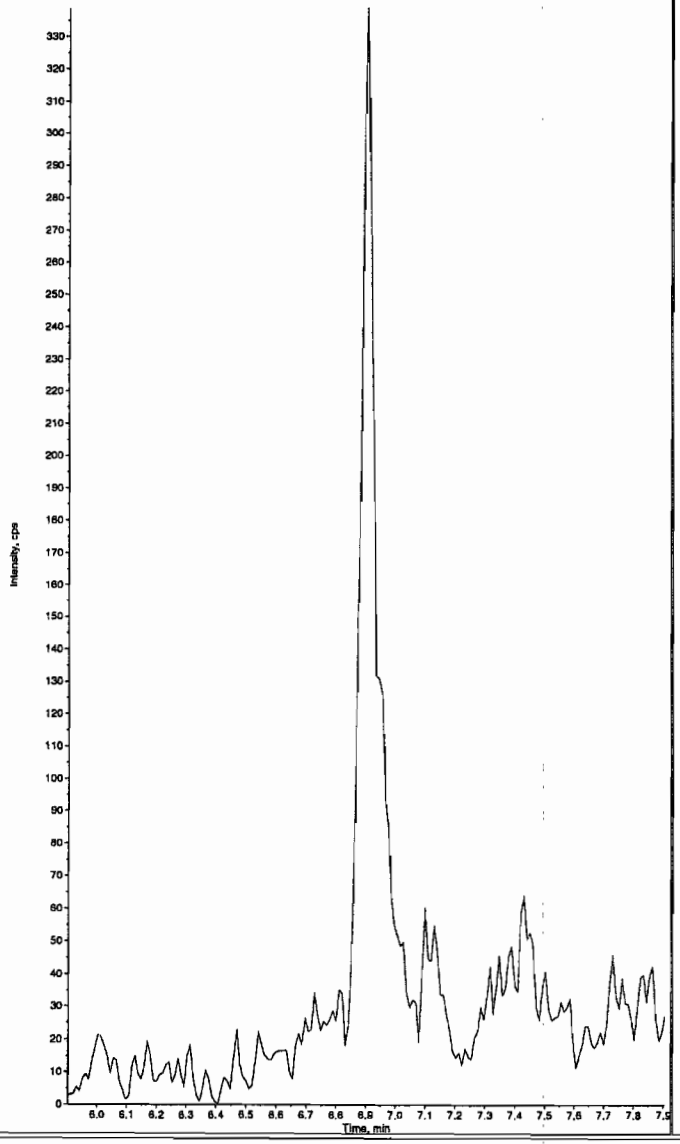
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	13
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ran 4/12/10

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04090010.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: 4/9/2010
Acq. Time: 9:36:11 AM

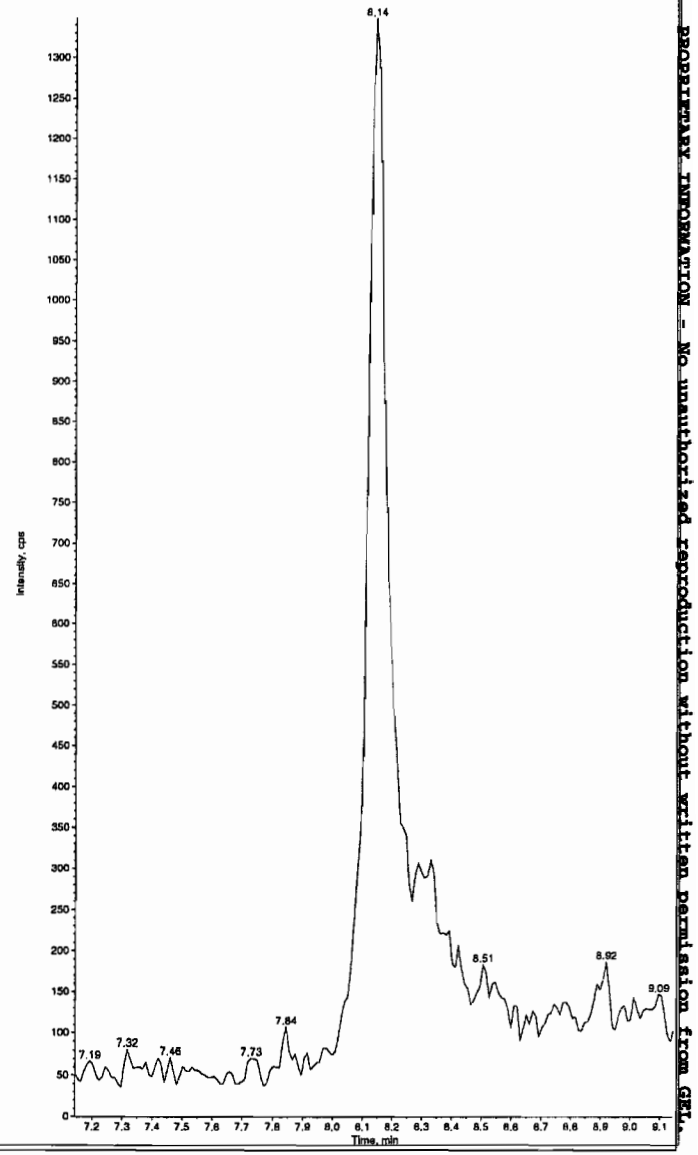
Modified: No



Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04090010.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: 4/9/2010
Acq. Time: 9:36:11 AM

Modified: No



Hmm-04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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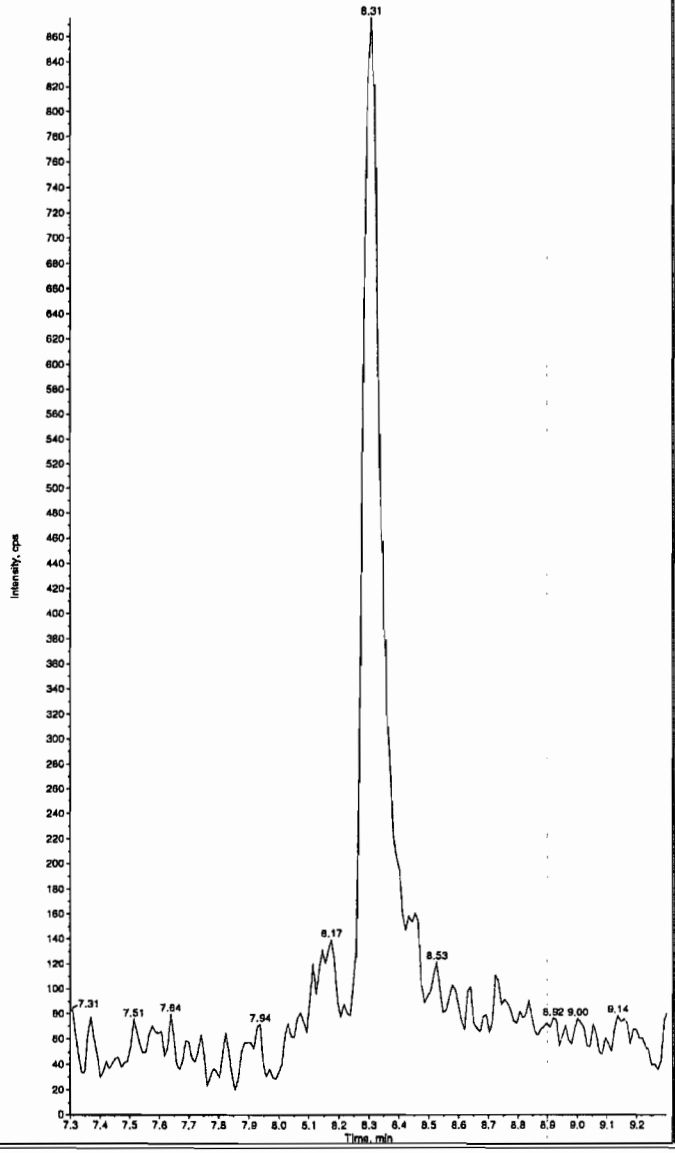
Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04090010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 9:36:11 AM

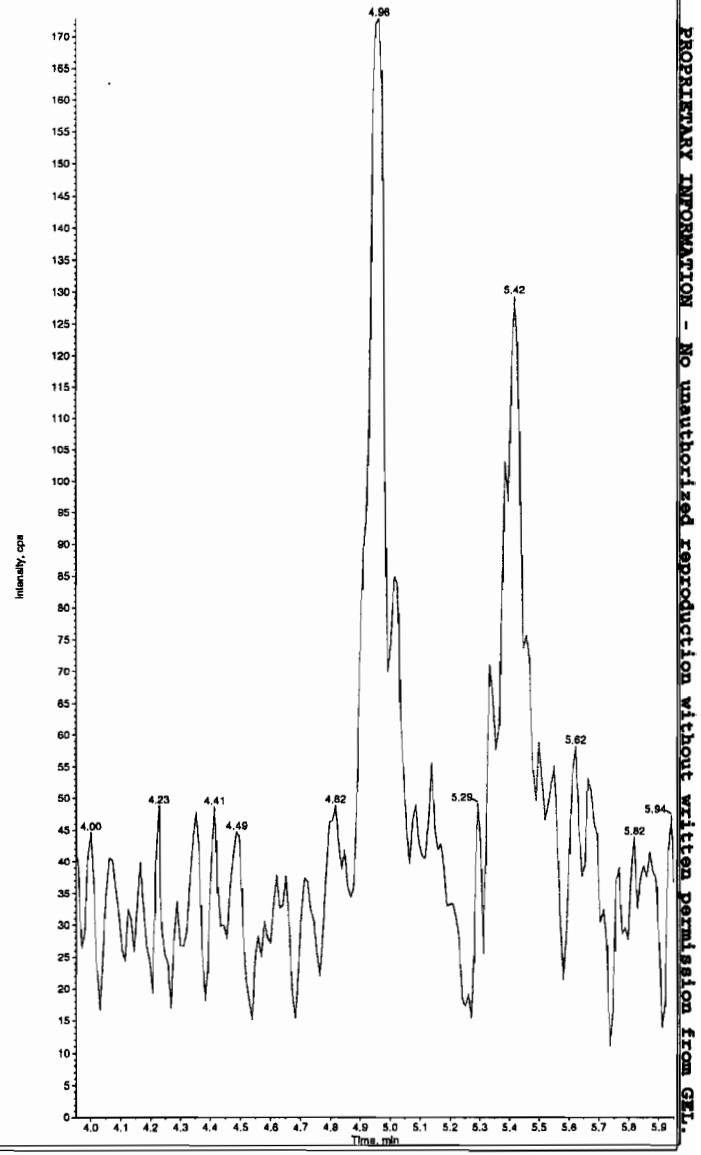
Modified: No



Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04090010.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: 4/9/2010
Acq. Time: 9:36:11 AM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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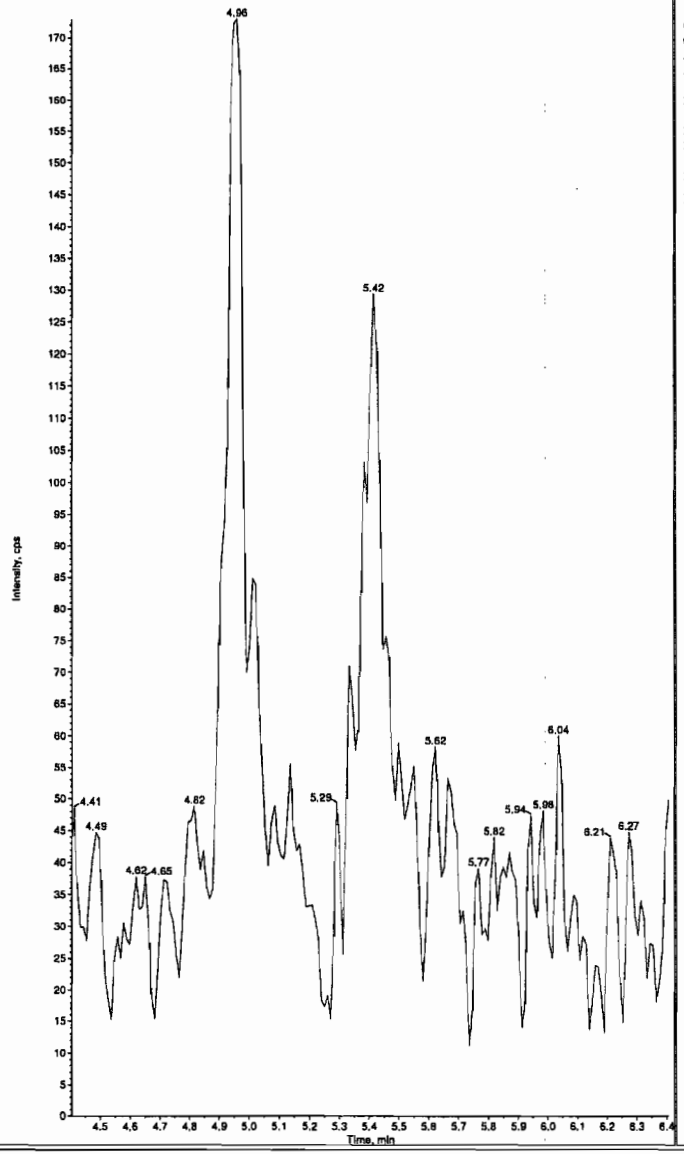
Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04090010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 9:36:11 AM

Modified: No

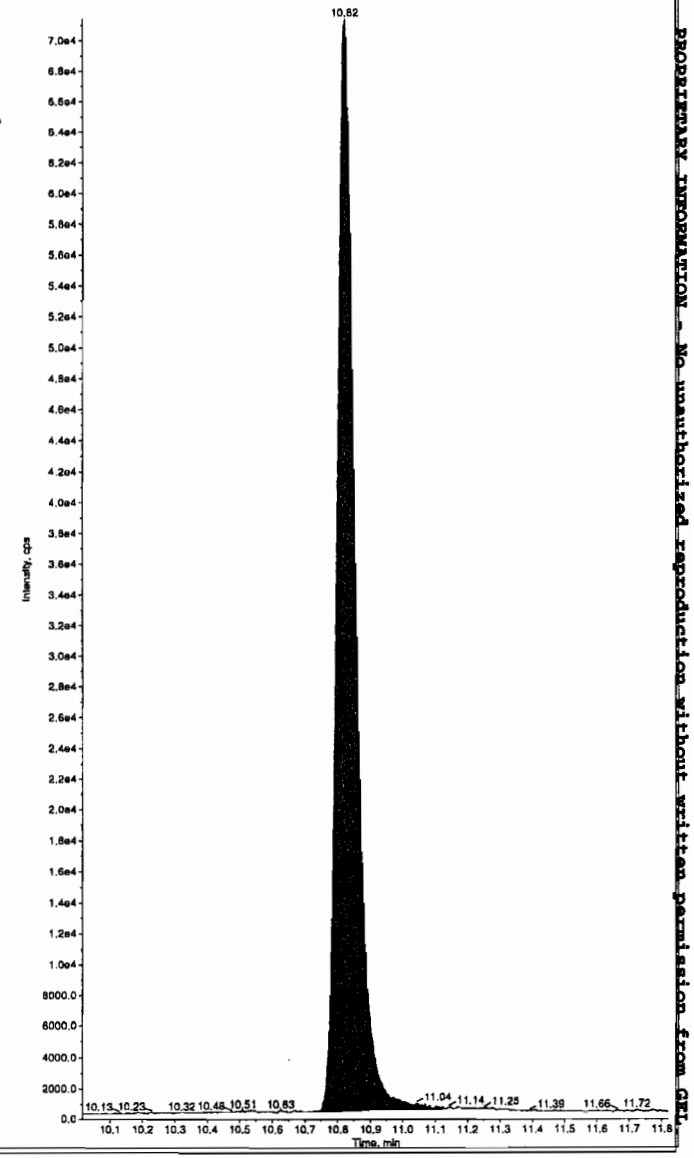


Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04090010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 13.0 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 9:36:11 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.90e+005 counts
Height: 70883.965 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): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 09-APR-10 10:07

GEL Data File: EXS04090012.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	7.48
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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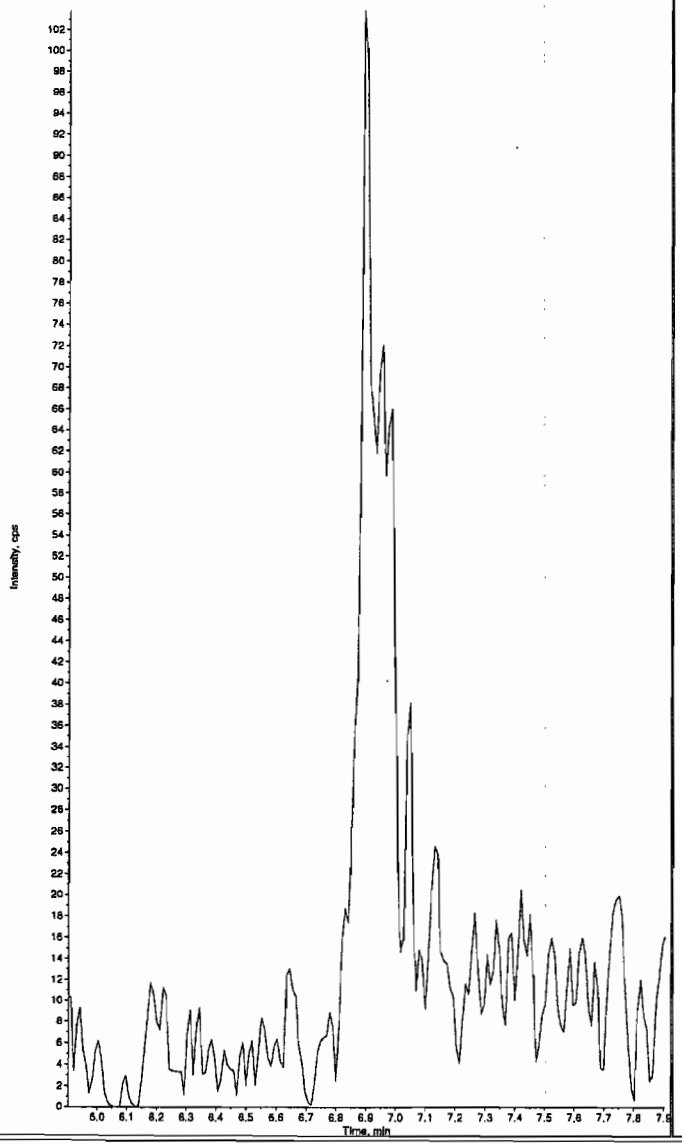
Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04090012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 10:07:35 AM

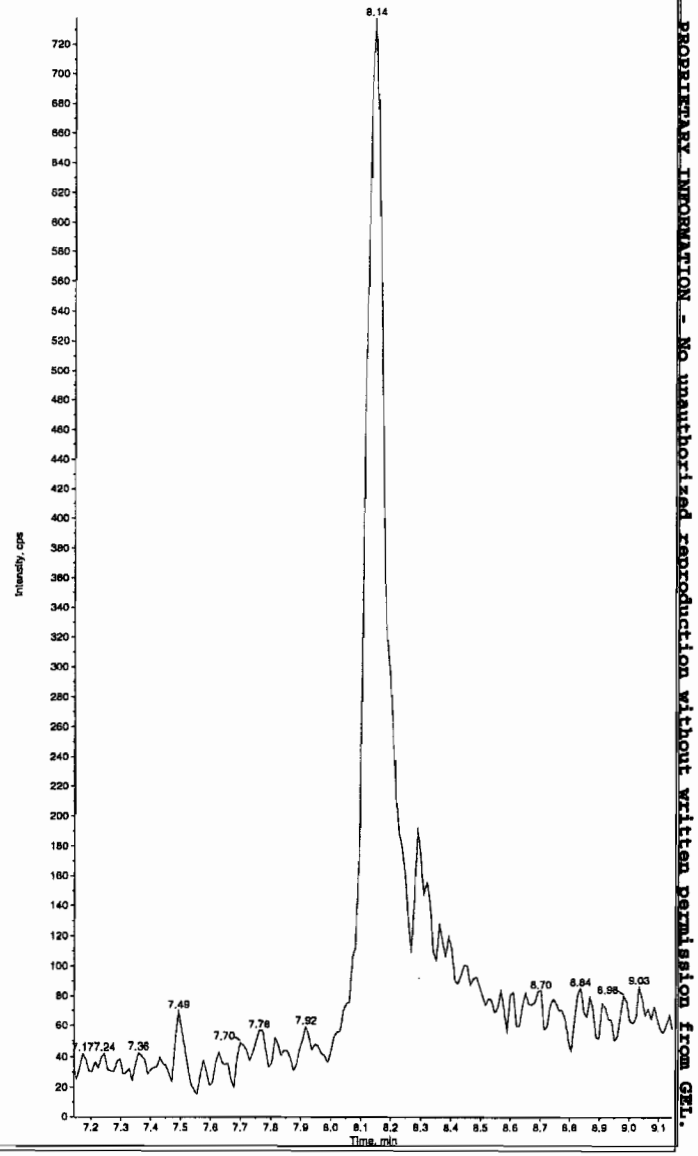
Modified: No



Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04090012.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: 4/9/2010
Acq. Time: 10:07:35 AM

Modified: No



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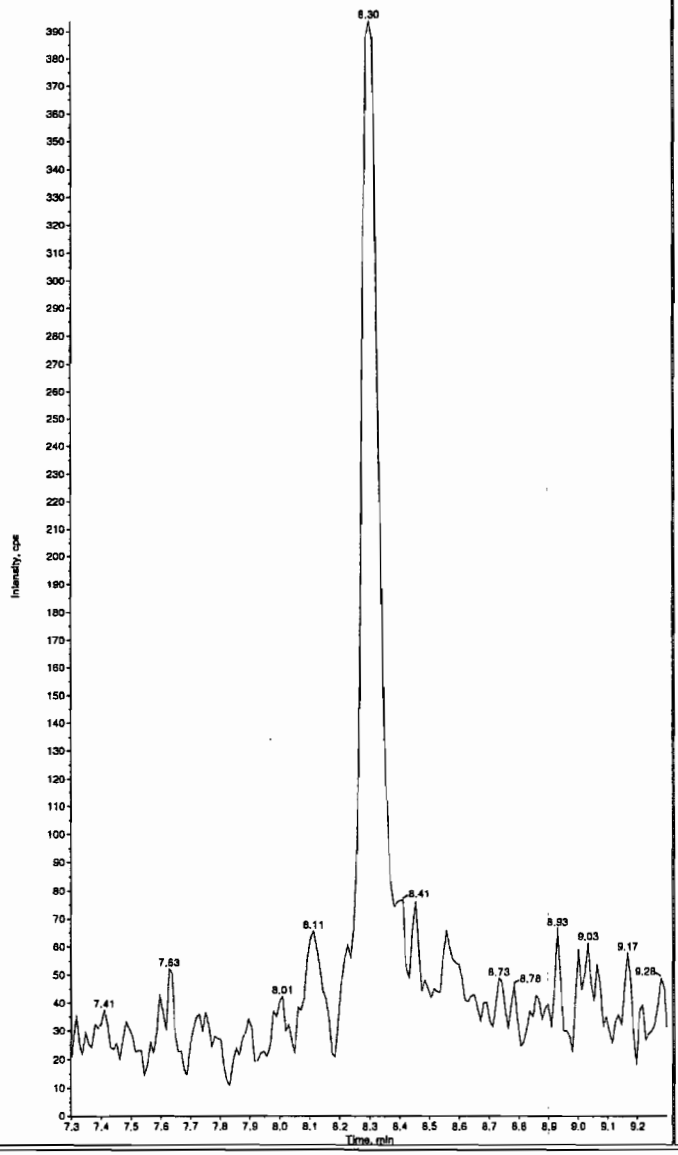
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04090012.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: 4/9/2010
Acq. Time: 10:07:35 AM

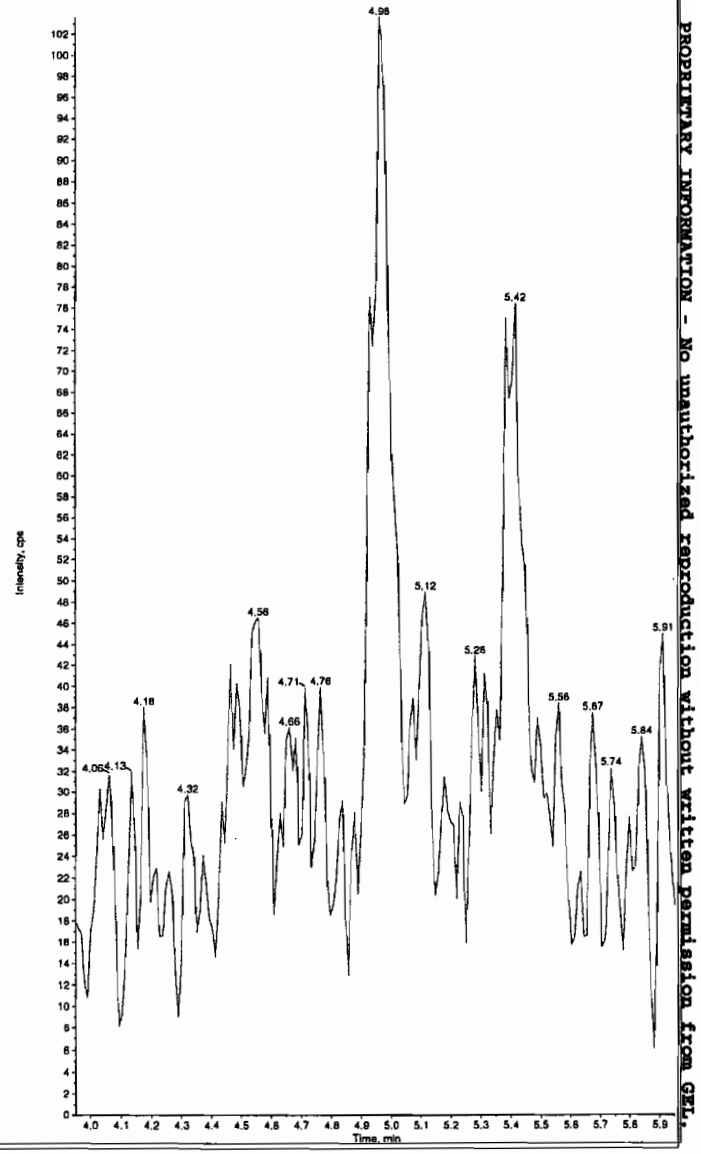
Modified: No



Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04090012.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: 4/9/2010
Acq. Time: 10:07:35 AM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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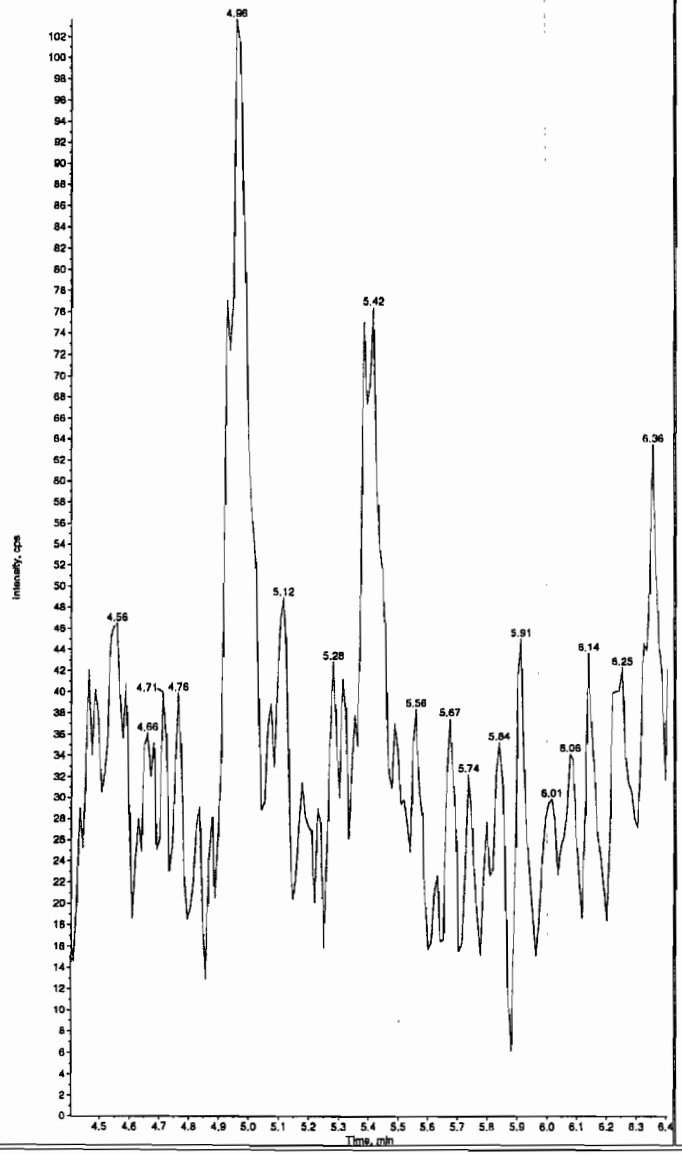
Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04090012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 10:07:35 AM

Modified: No

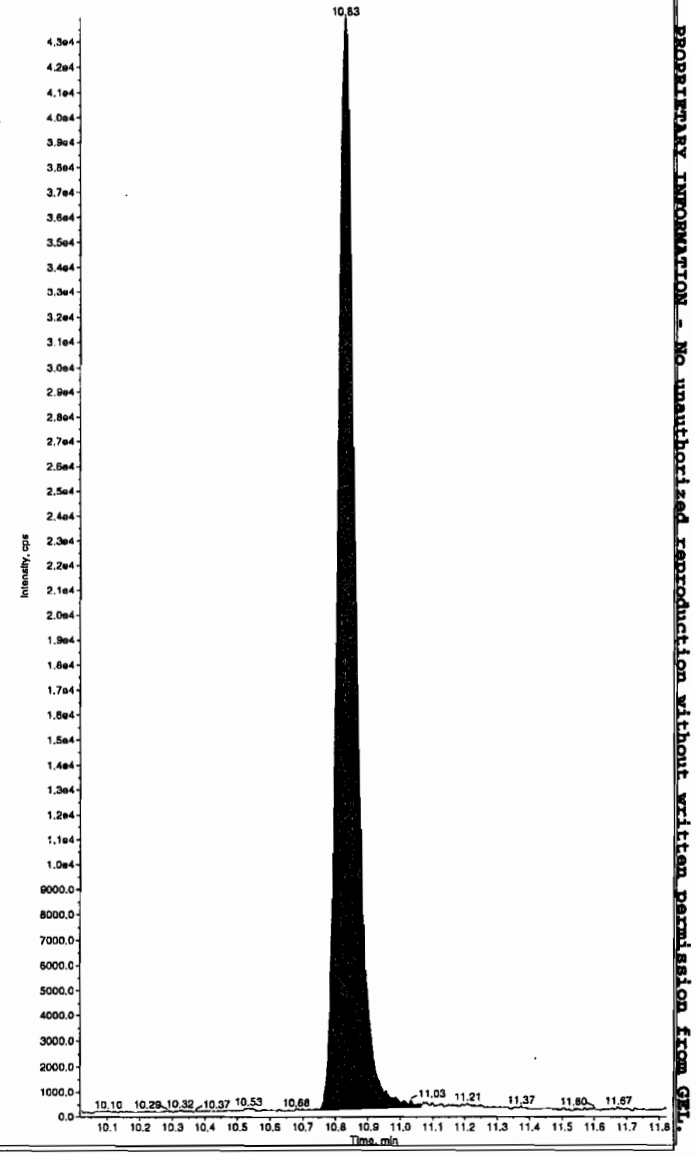


Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04090012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 7.48 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 10:07:35 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.76e+005 counts
Height: 43686.192 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): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09–APR–10 13:31

GEL Data File: EXS04090025.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	4.56
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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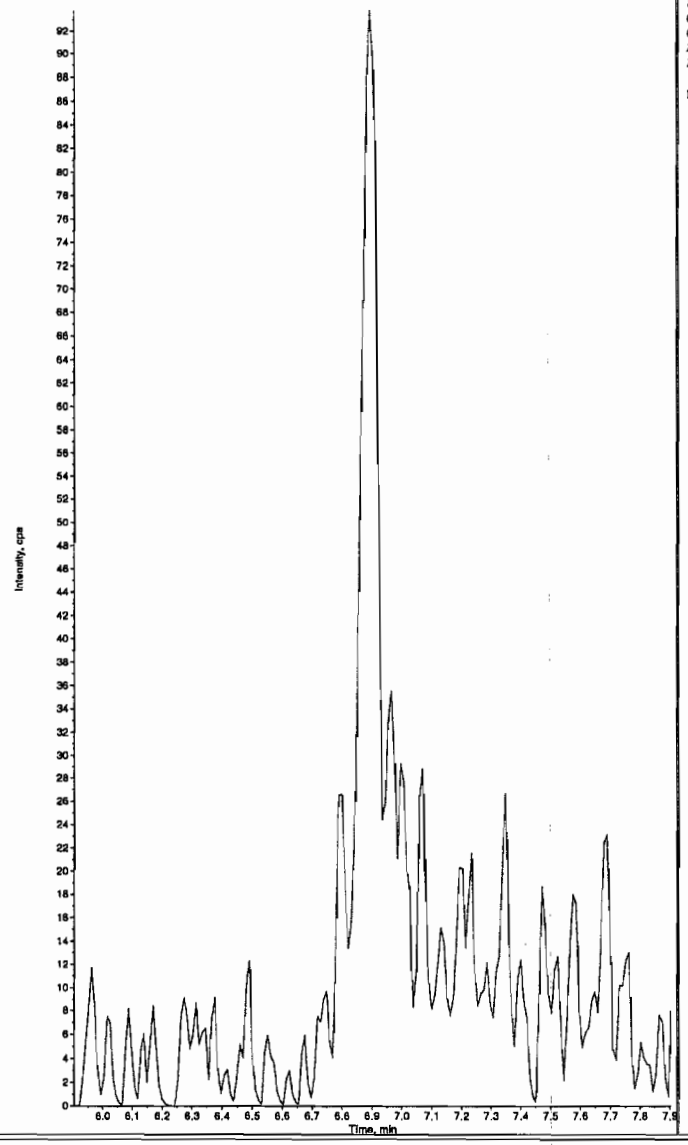
Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04090025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:      1
Sample Type:       Unknown
Concentration:     N/A
Calculated Conc:   0.00      ng/mL
Acq. Date:         4/9/2010
Acq. Time:         1:31:51 PM

Modified:          No
```



Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04090025.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:         4/9/2010
Acq. Time:         1:31:51 PM

Modified:          No
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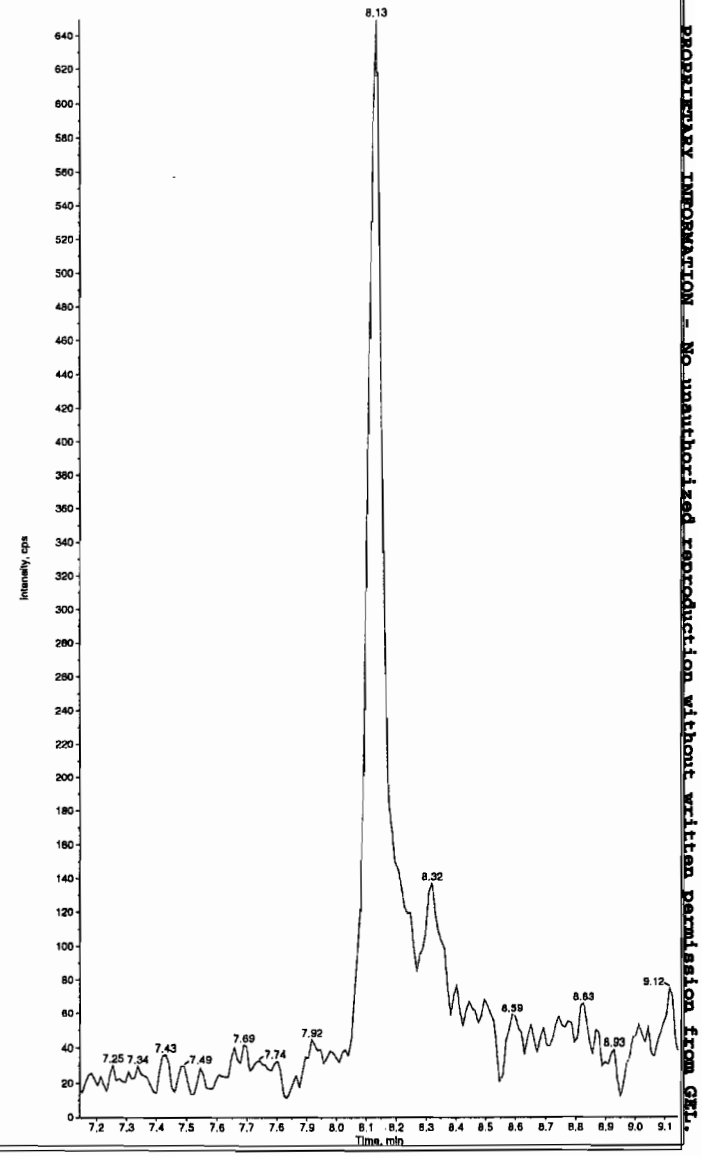

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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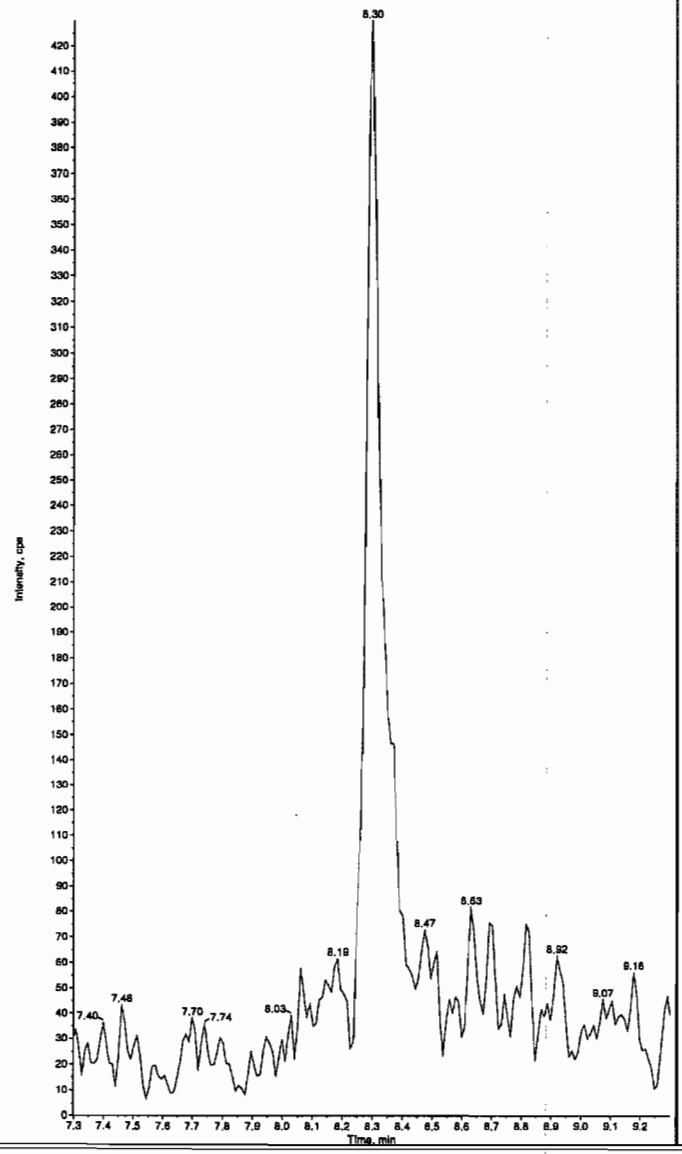
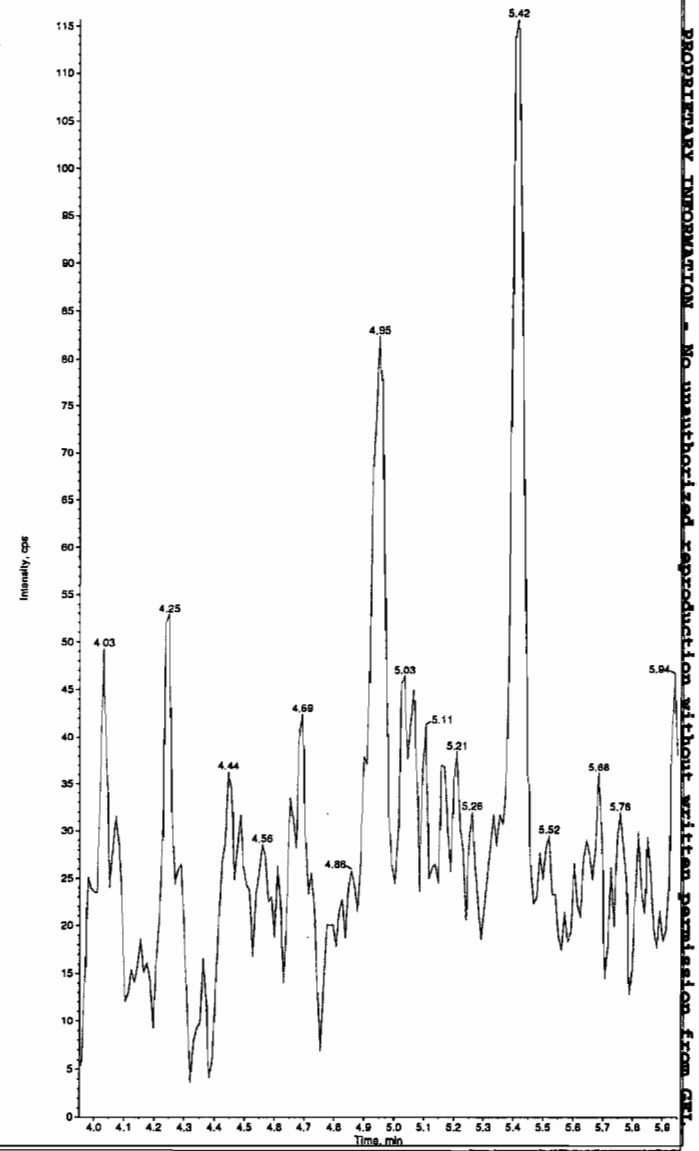
Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04090025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:31:51 PM

Modified: No



Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04090025.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: 4/9/2010
Acq. Time: 1:31:51 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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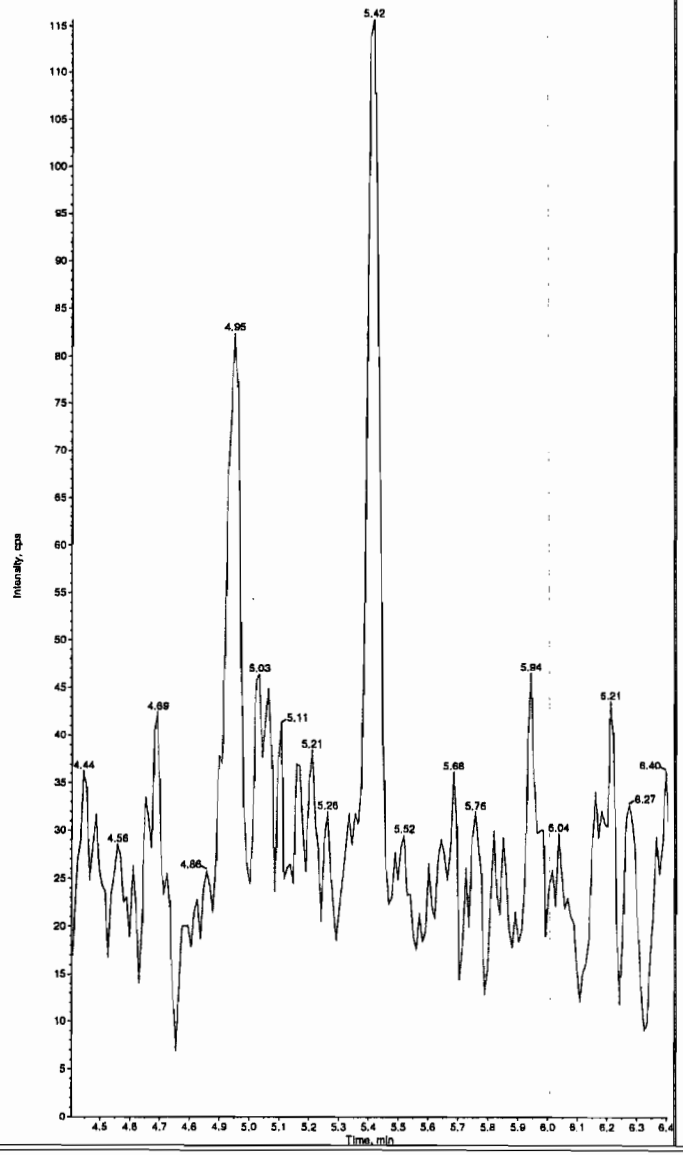
Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04090025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:31:51 PM

Modified: No

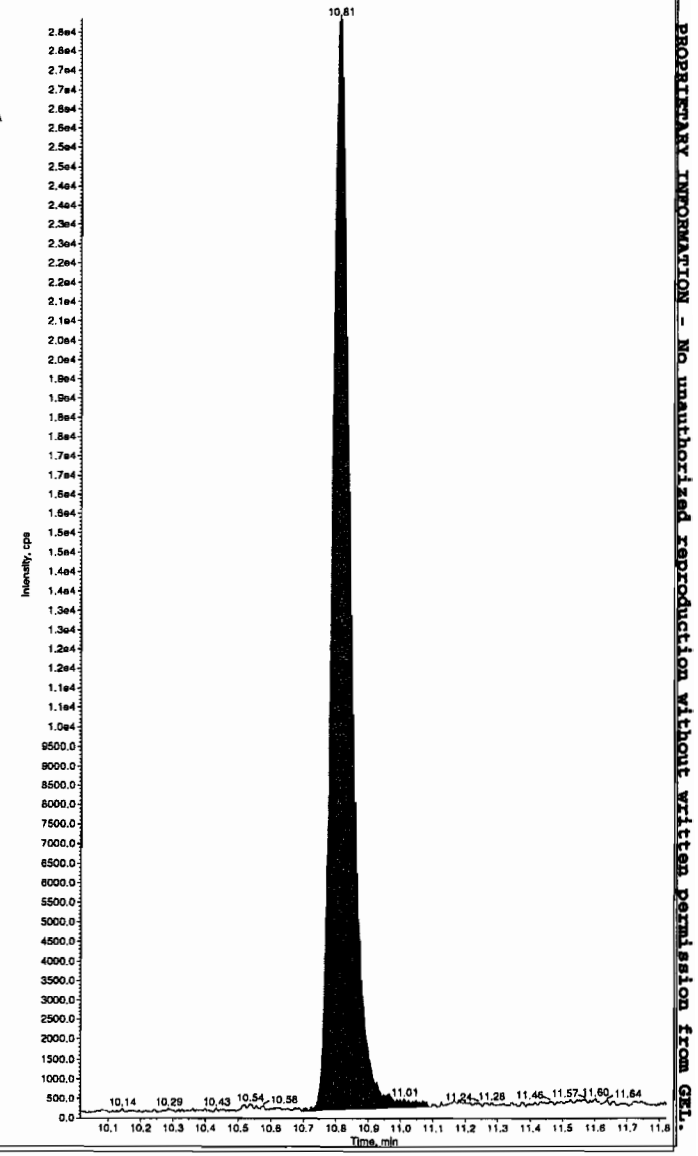


Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04090025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.56 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:31:51 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.16e+005 counts
Height: 28150.688 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): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 09-APR-10 16:56

GEL Data File: EXS04090038.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	3.81
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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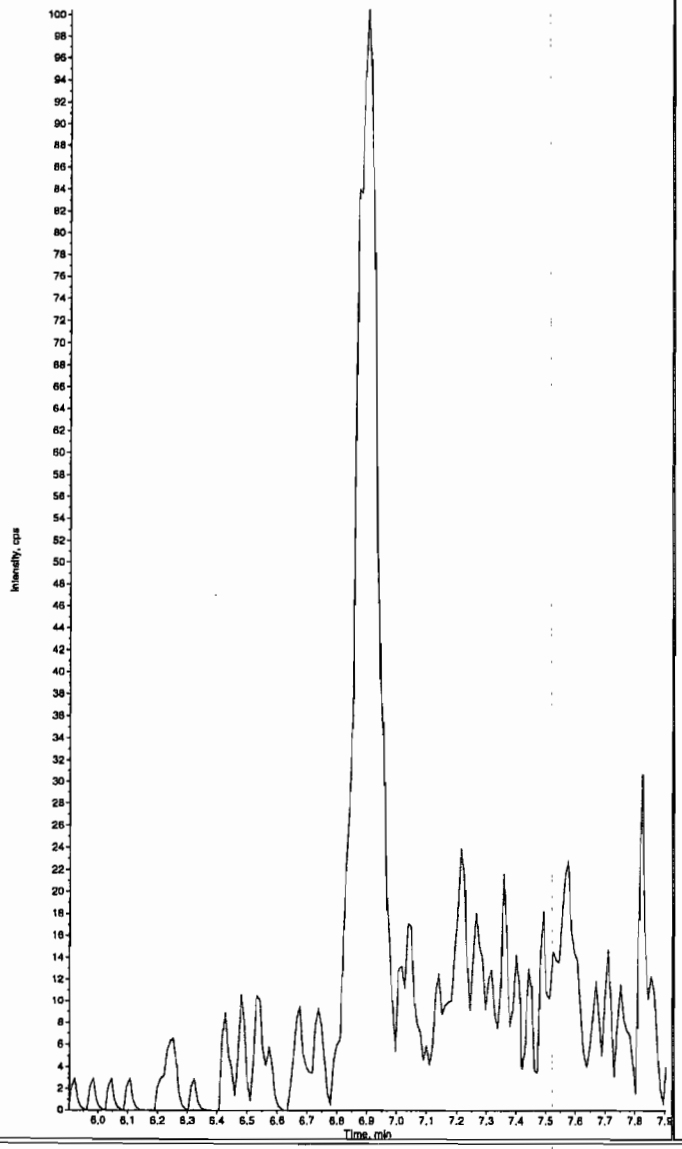
Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04090038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:56:00 PM

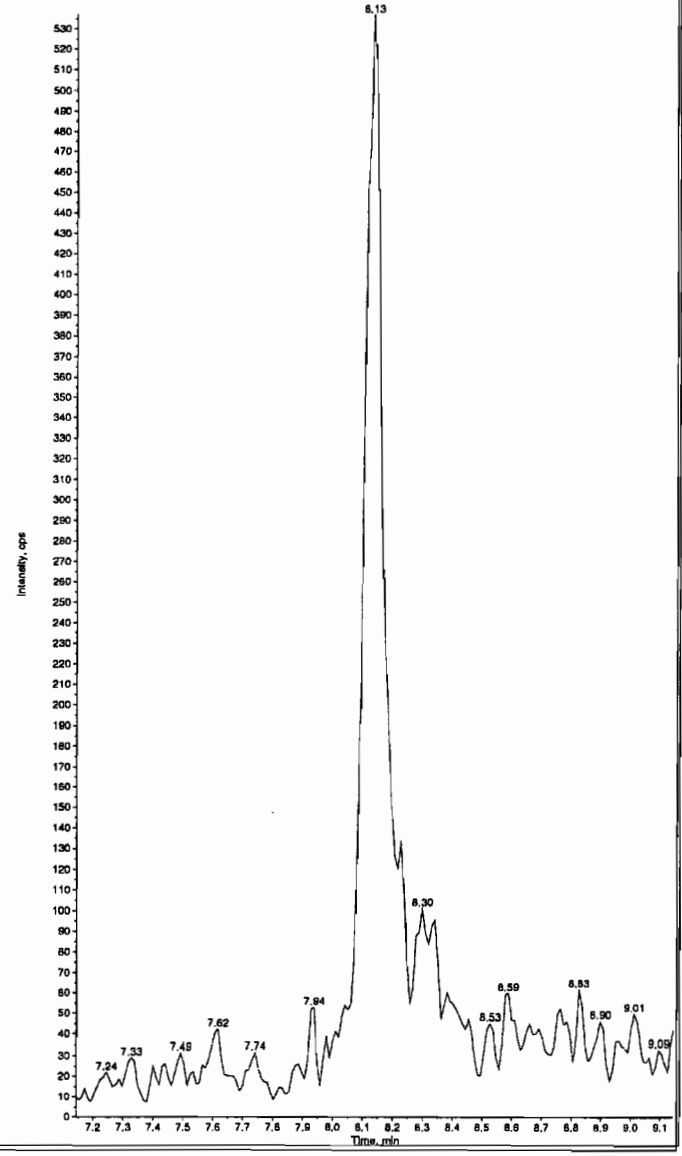
Modified: No



Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04090038.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: 4/9/2010
Acq. Time: 4:56:00 PM

Modified: No



dhm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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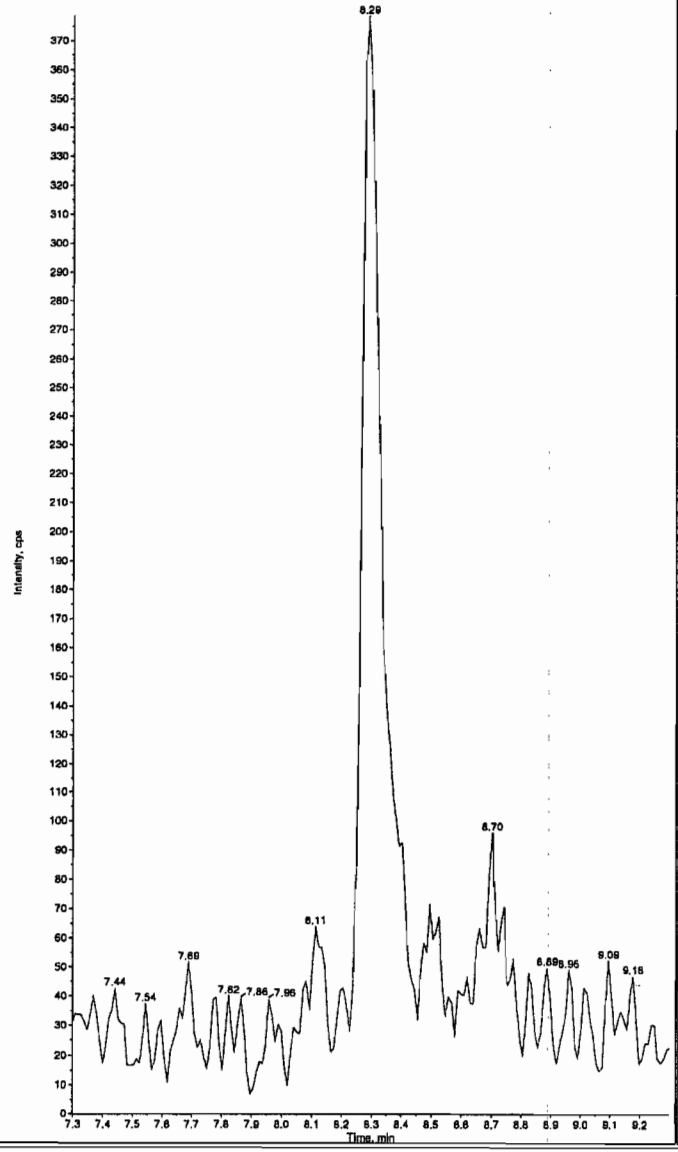
Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04090038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:56:00 PM

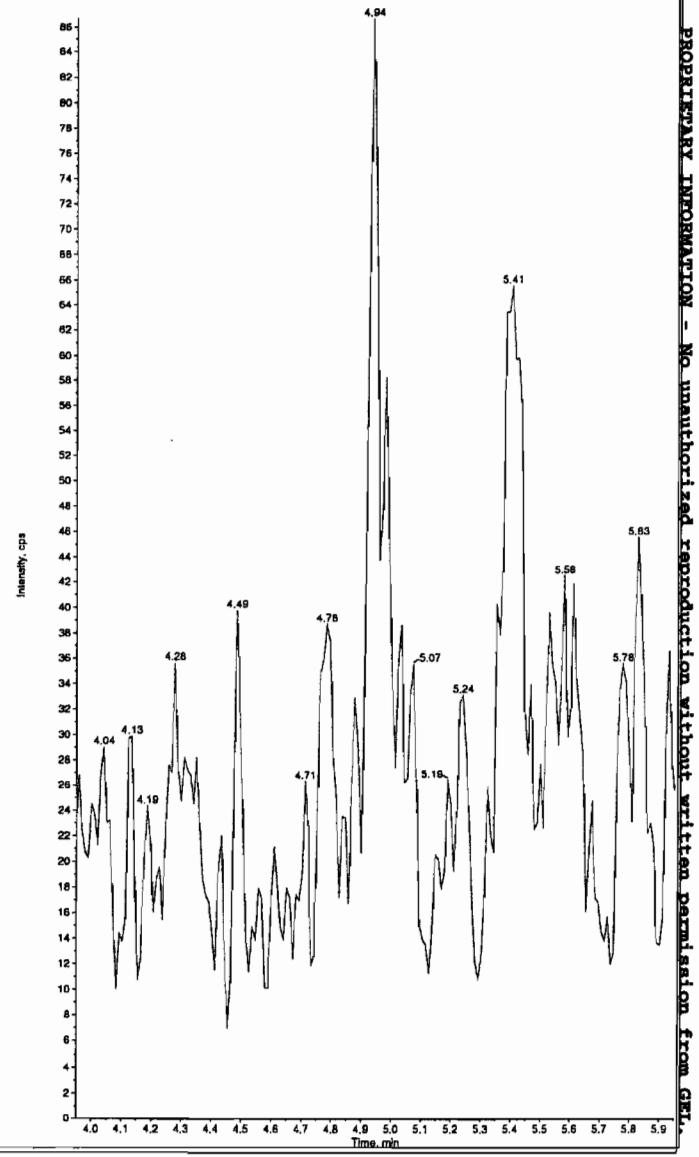
Modified: No



Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04090038.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: 4/9/2010
Acq. Time: 4:56:00 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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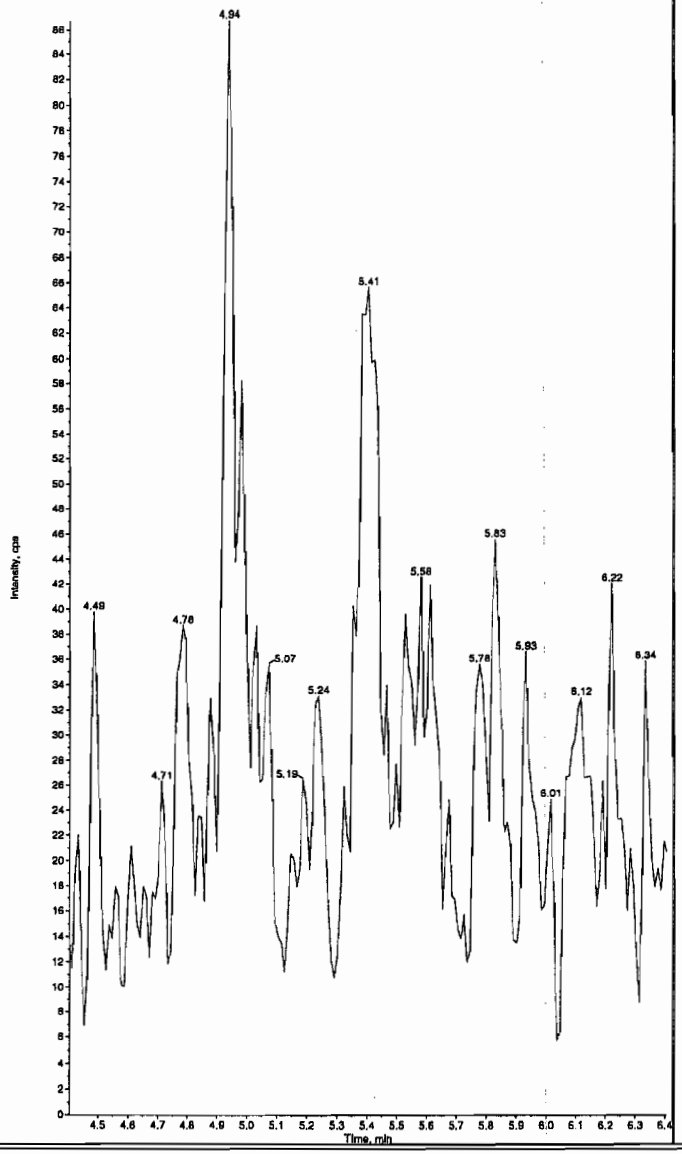
Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04090038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:56:00 PM

Modified: No

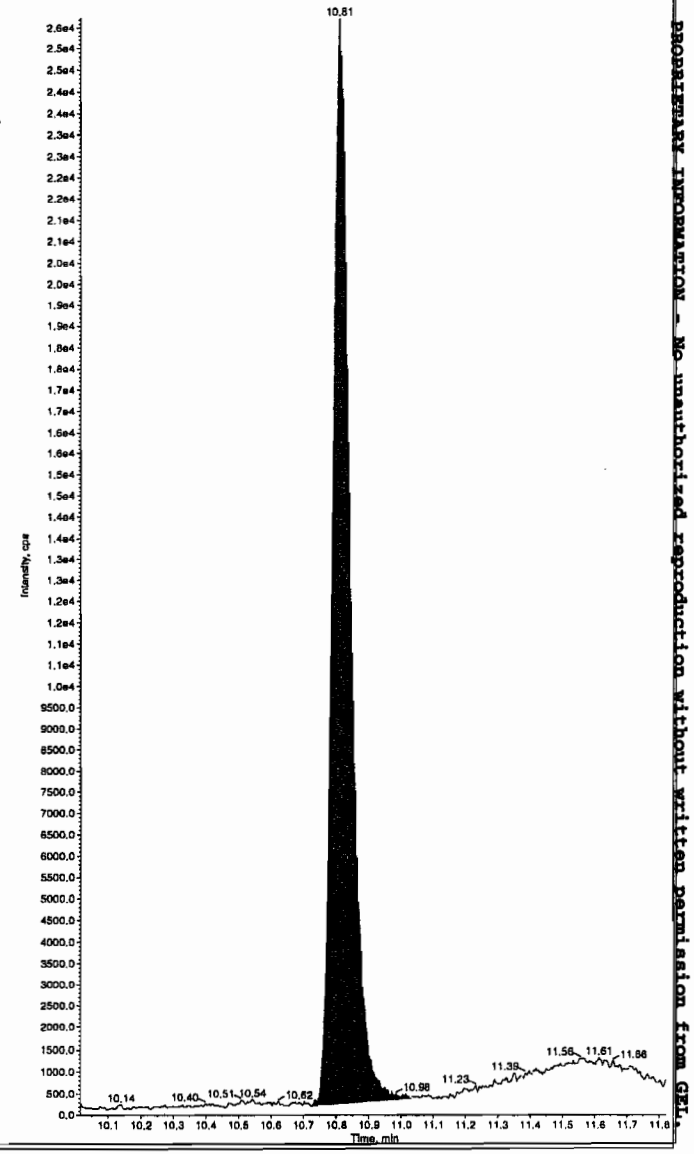


Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04090038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.81 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:56:00 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.00e+005 counts
Height: 25470.665 cps
Start Time: 10.7 min
End Time: 11.0 min



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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09–APR–10 18:30

GEL Data File: EXS04090044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

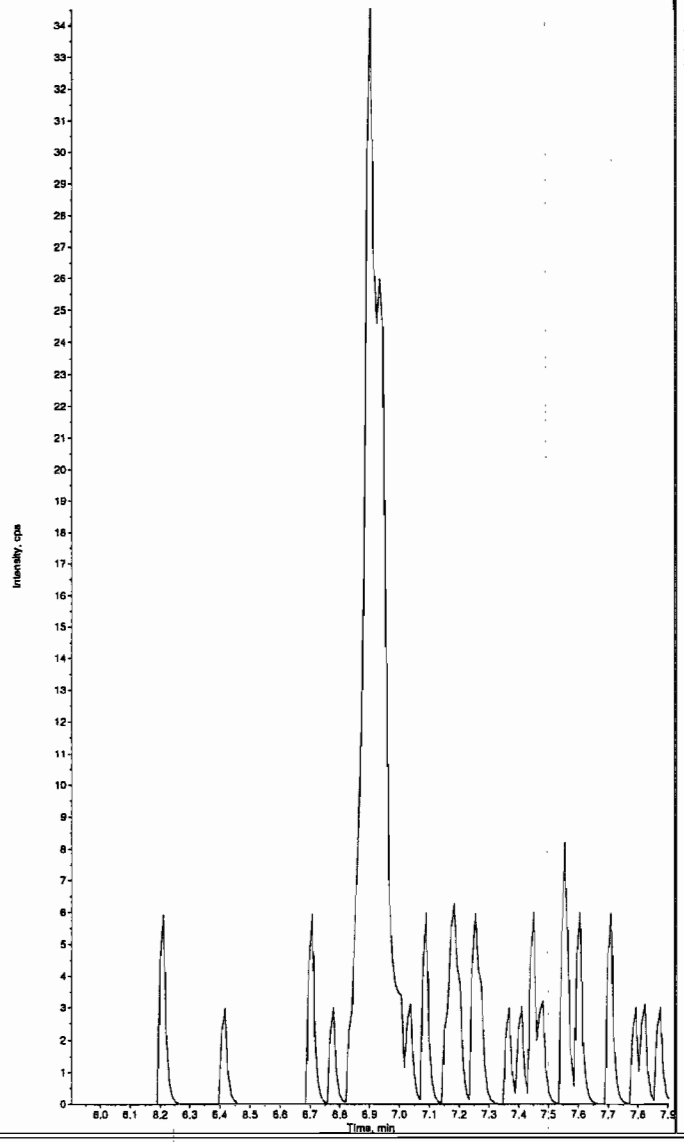
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.88
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lar 4/12/10

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04090044.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: 4/9/2010
Acq. Time: 6:30:16 PM

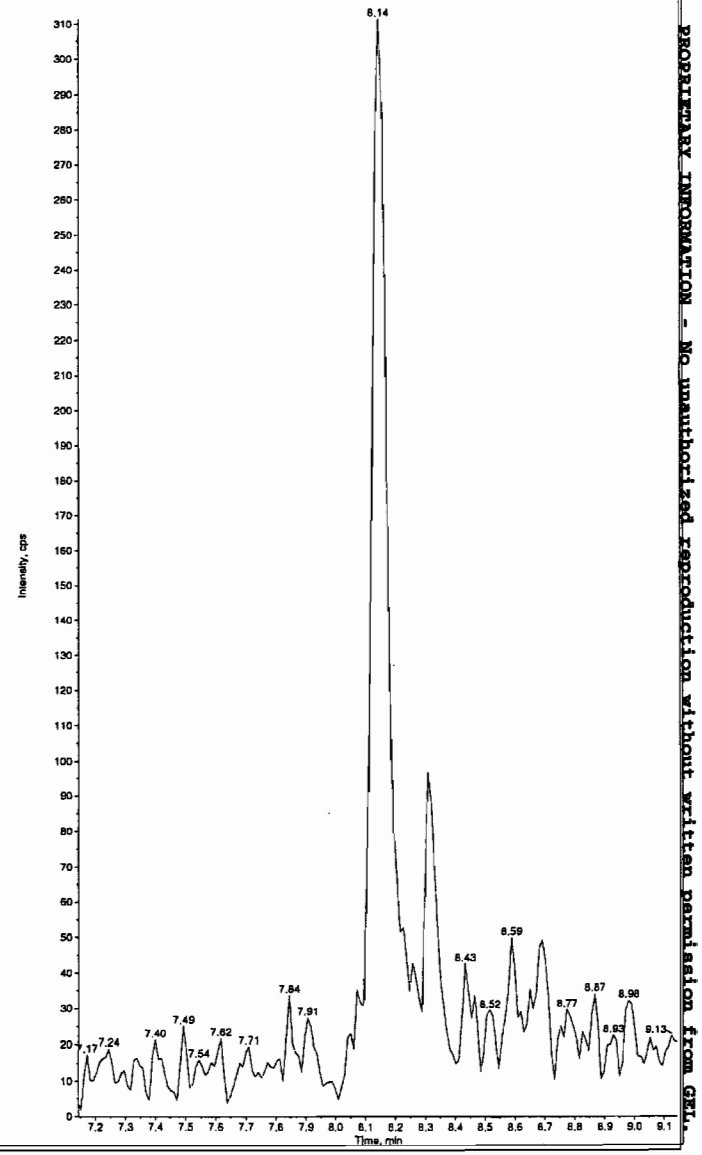
Modified: No



Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04090044.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: 4/9/2010
Acq. Time: 6:30:16 PM

Modified: No



HMM 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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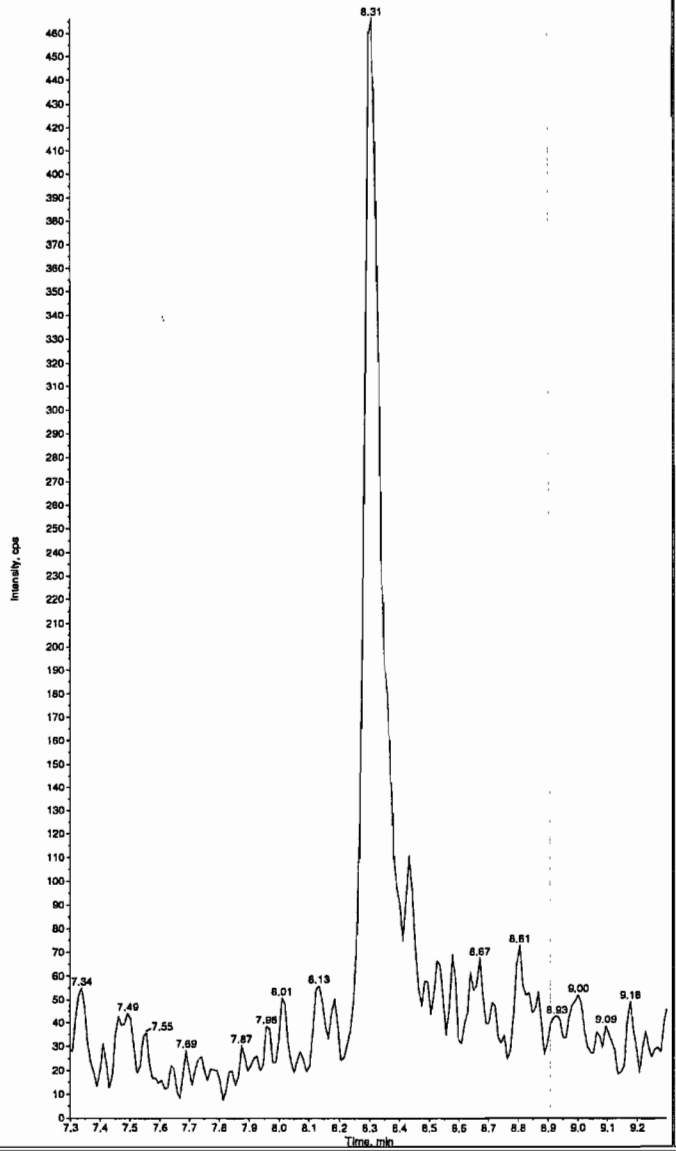
Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04090044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 6:30:16 PM

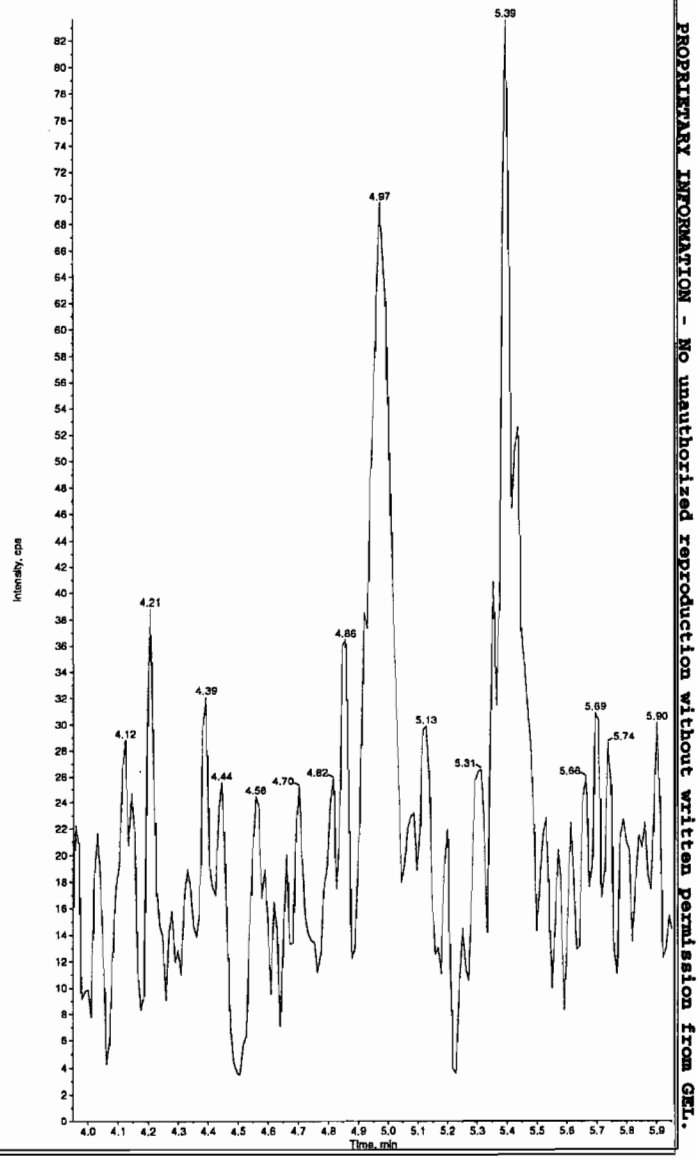
Modified: No



Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04090044.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: 4/9/2010
Acq. Time: 6:30:16 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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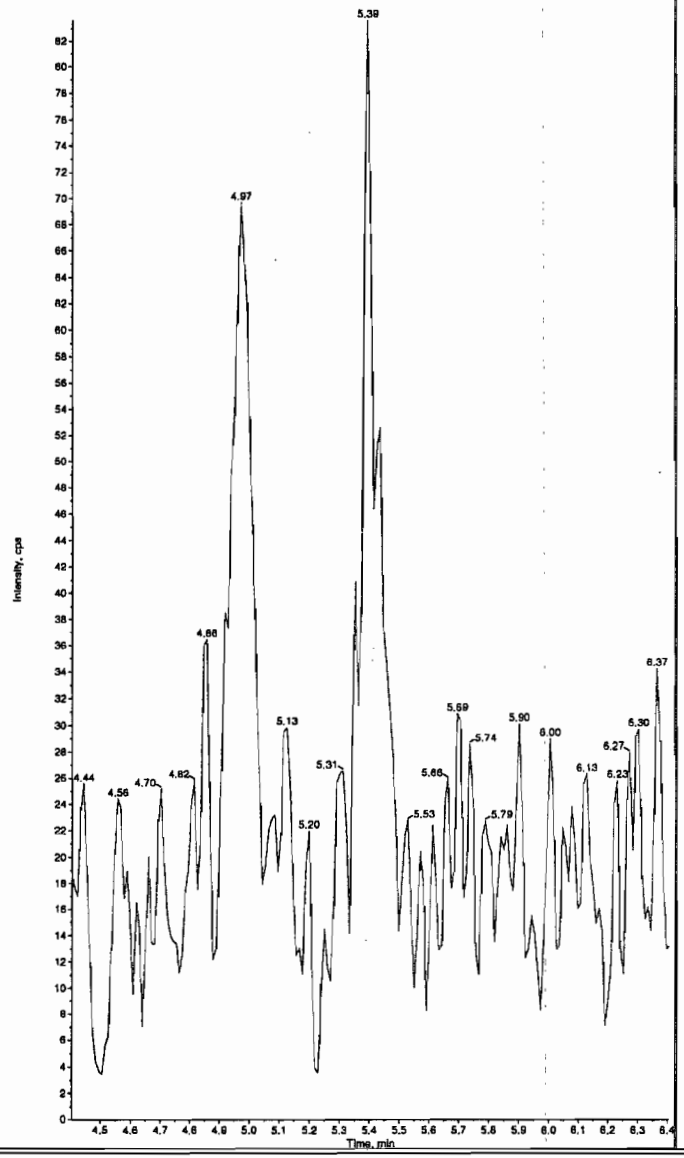
Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04090044.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 6:30:16 PM

Modified: No

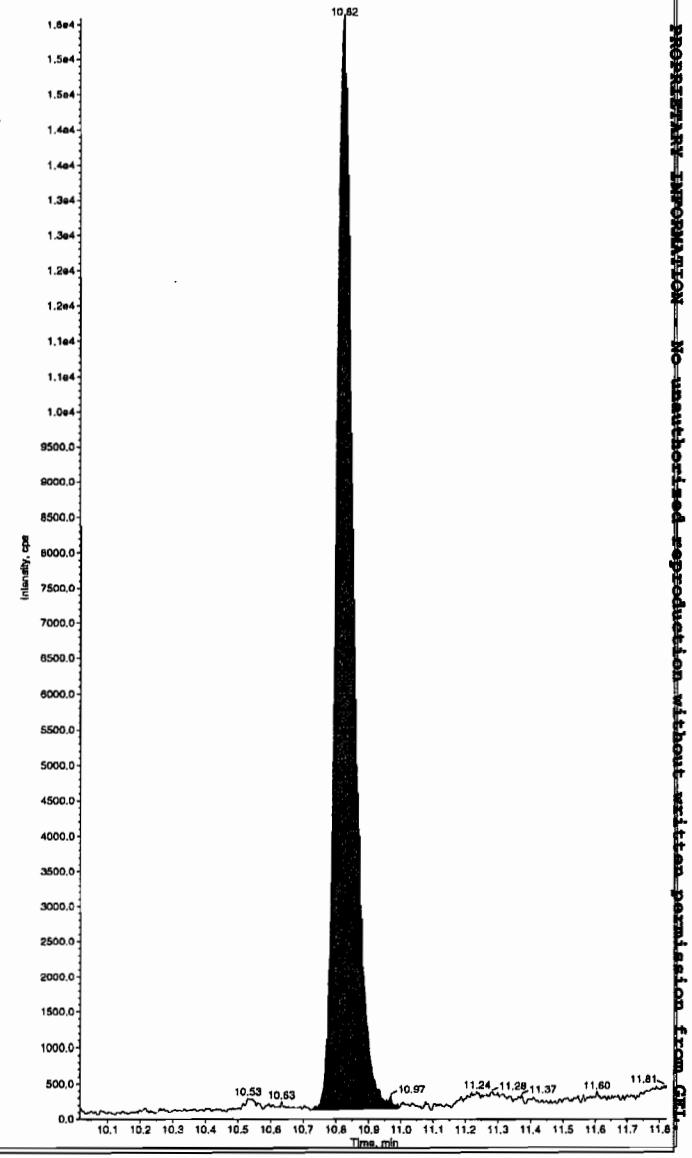


Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04090044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.88 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 6:30:16 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.06e+004 counts
Height: 15453.811 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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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2198

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 09–APR–10 20:20

GEL Data File: EXS04090051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

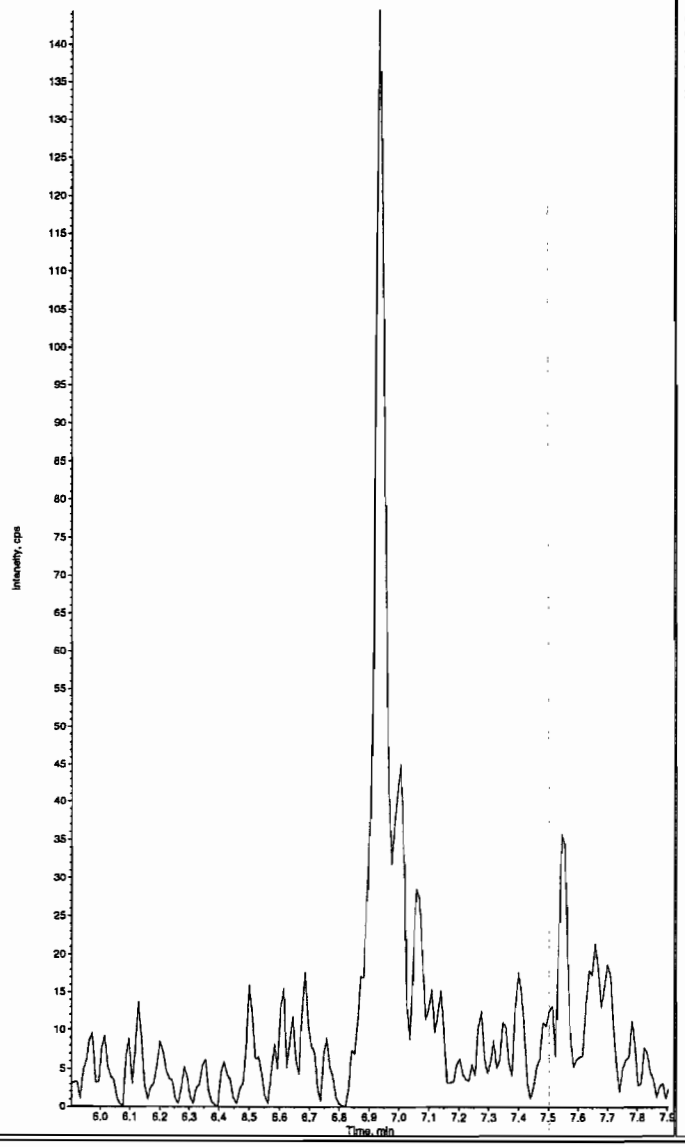
Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.71
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ler 4/12/10

Sample Name: "XI8LK07" Sample ID: "[1]LER" File: "EXS04090051.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: 4/9/2010
Acq. Time: 8:20:11 PM

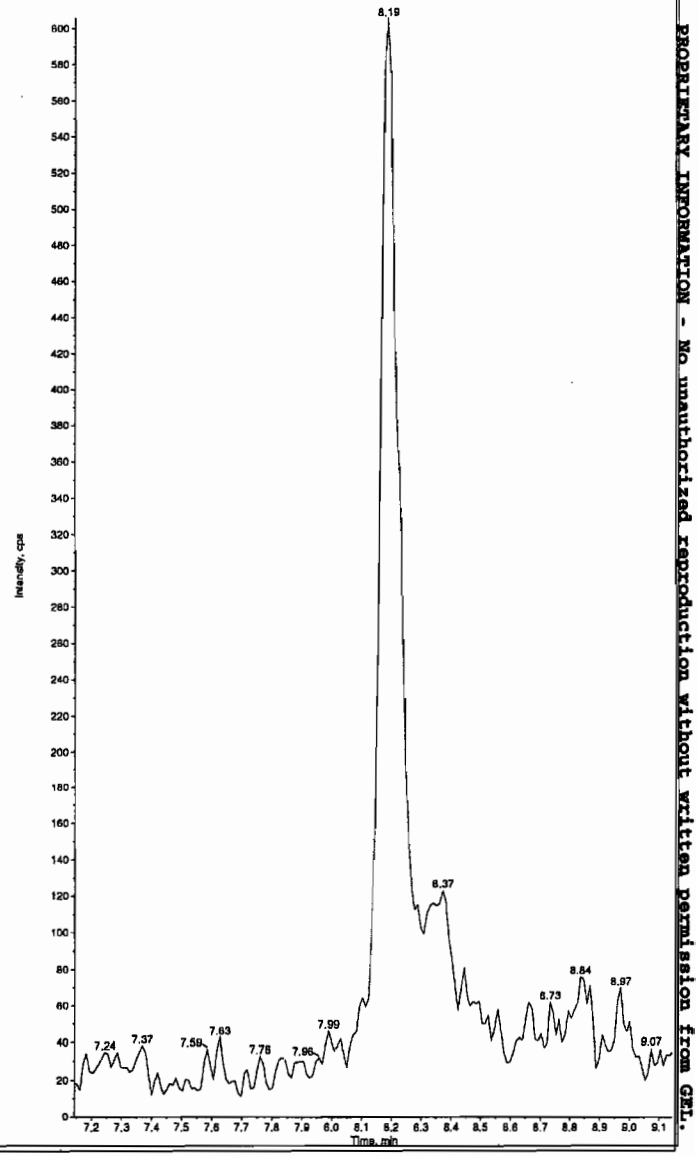
Modified: No



Sample Name: "XI8LK07" Sample ID: "[1]LER" File: "EXS04090051.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: 4/9/2010
Acq. Time: 8:20:11 PM

Modified: No



Hnm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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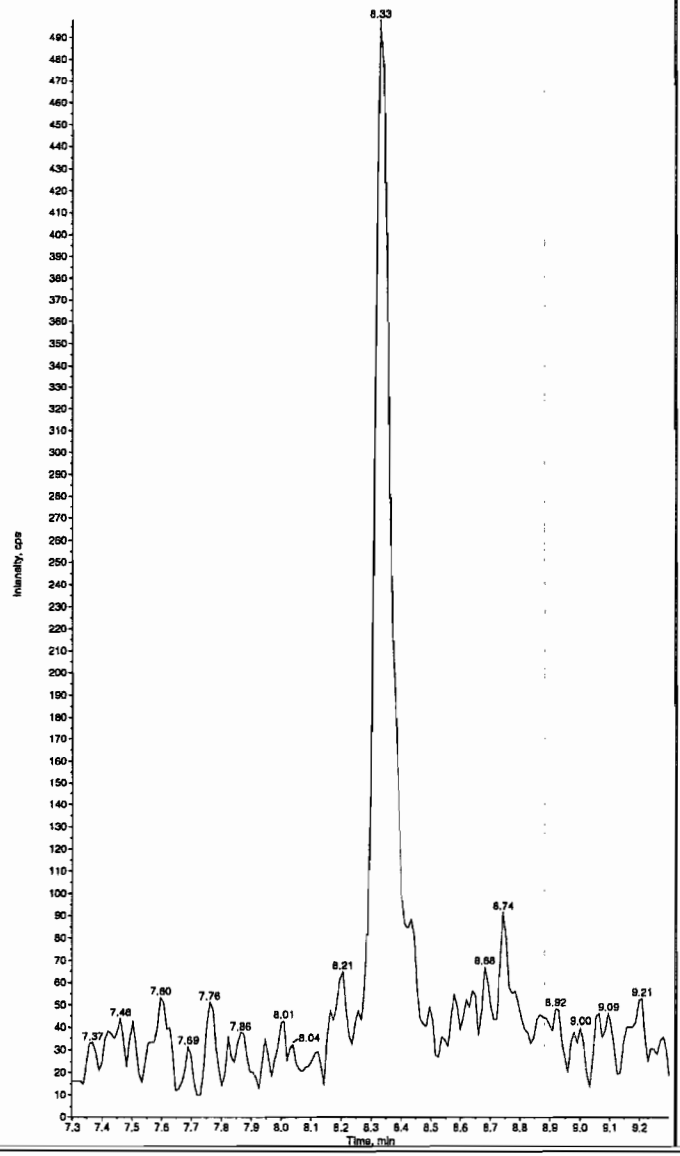
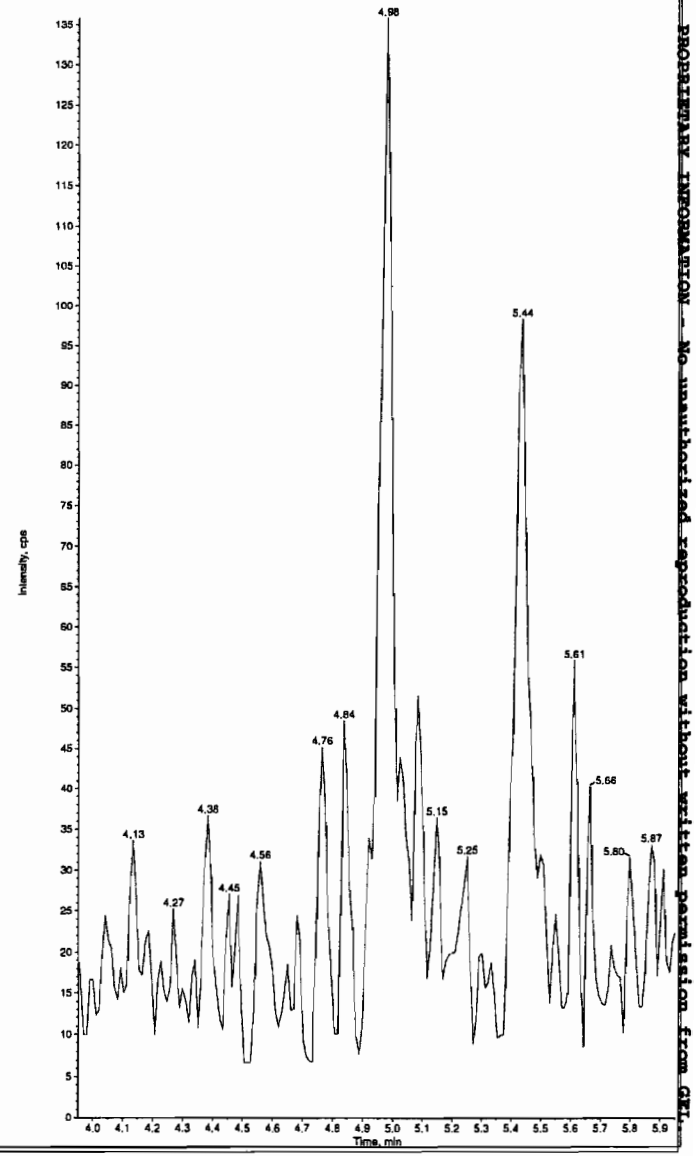
Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04090051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 8:20:11 PM

Modified: No



Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04090051.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: 4/9/2010
Acq. Time: 8:20:11 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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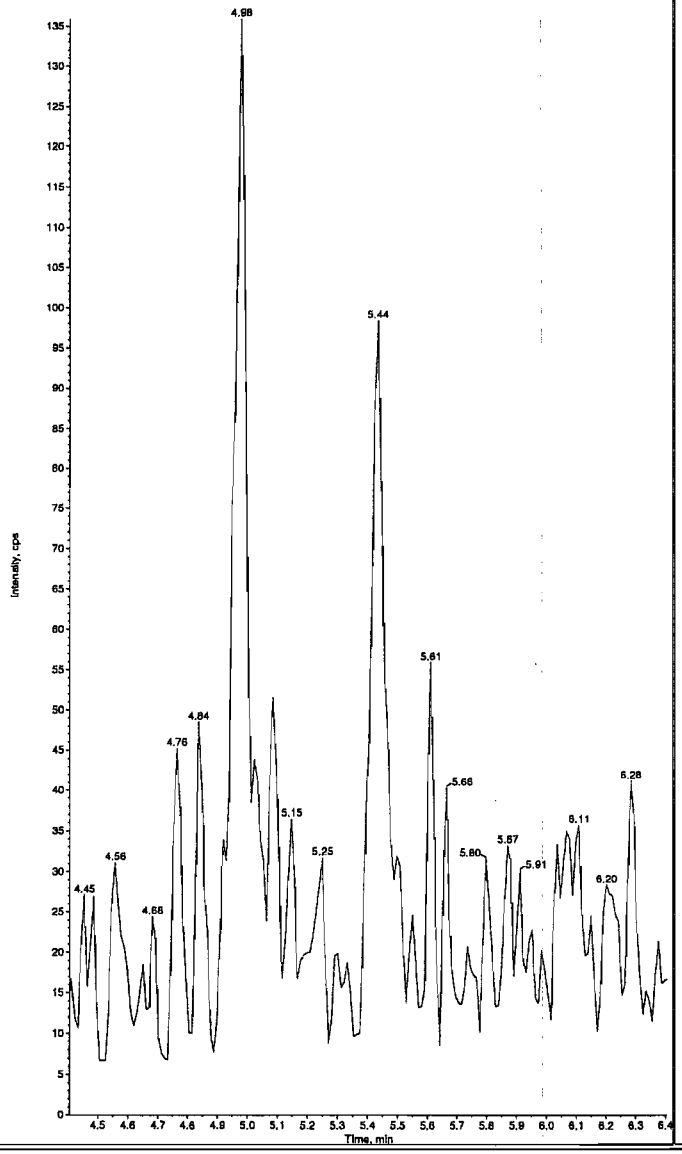
Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04090051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:      1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc:   0.00     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:20:11 PM

Modified:          No
```

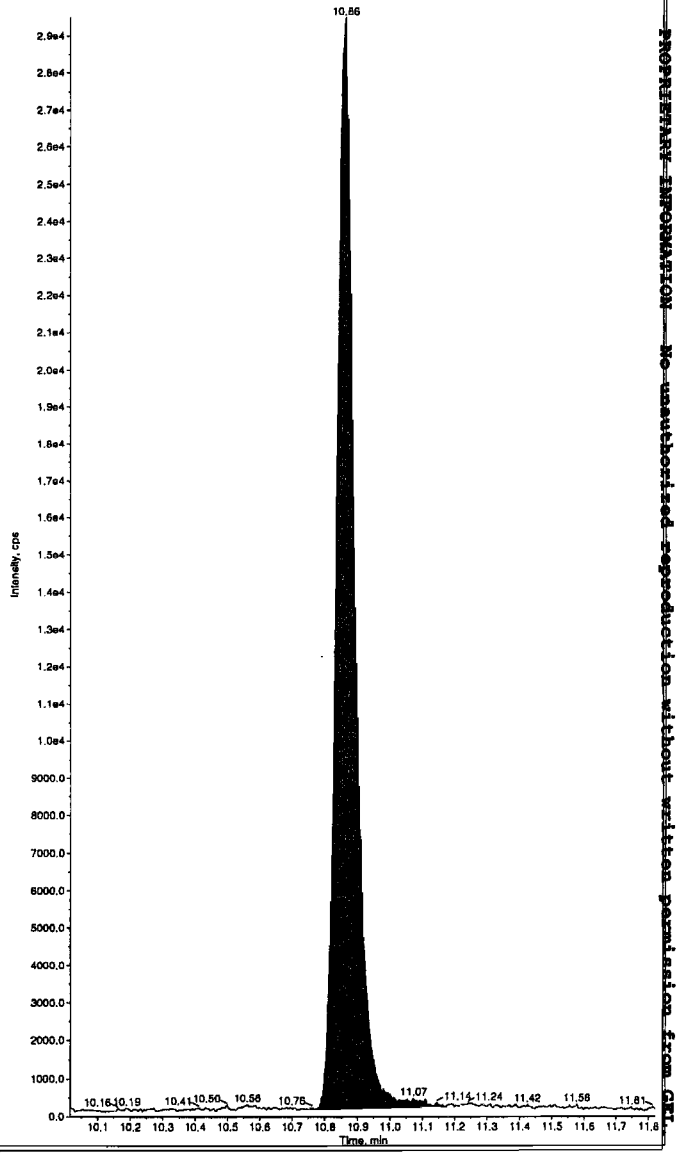


Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04090051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:      1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc:   4.71     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:20:11 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:       10.8     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    10.9     min
Area:        1.19e+005     counts
Height:        29275.728   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): 10-2198

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 09-APR-10 23:44

GEL Data File: EXS04090064.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

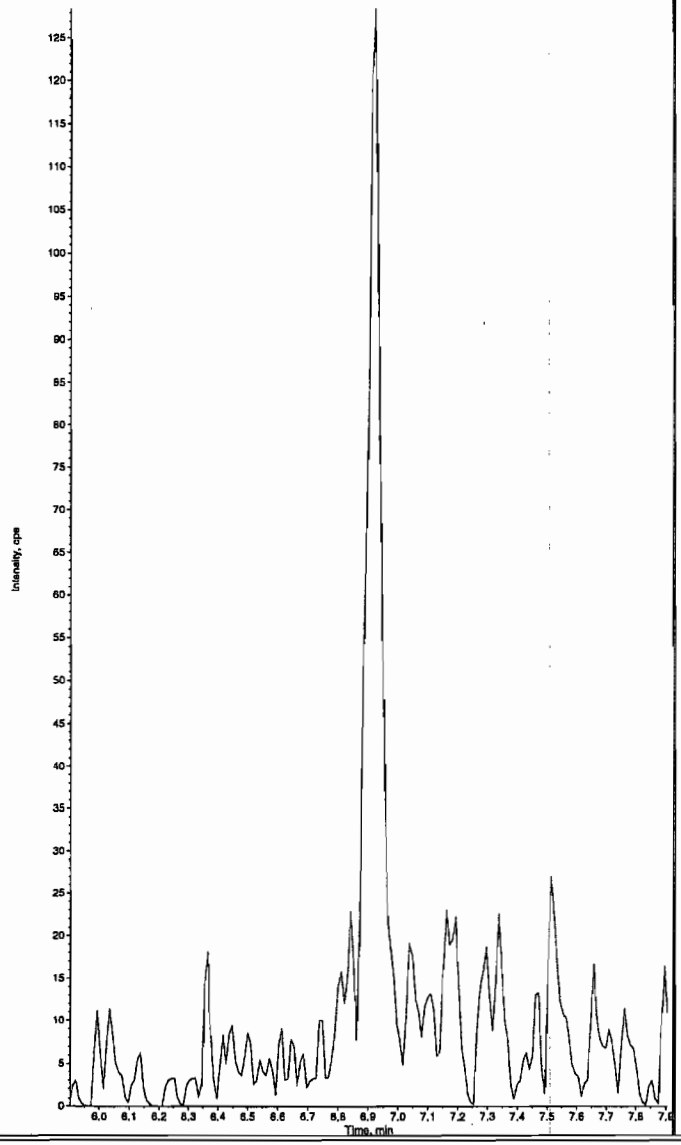
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 4/12/10

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04090064.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: 4/9/2010
Acq. Time: 11:44:19 PM

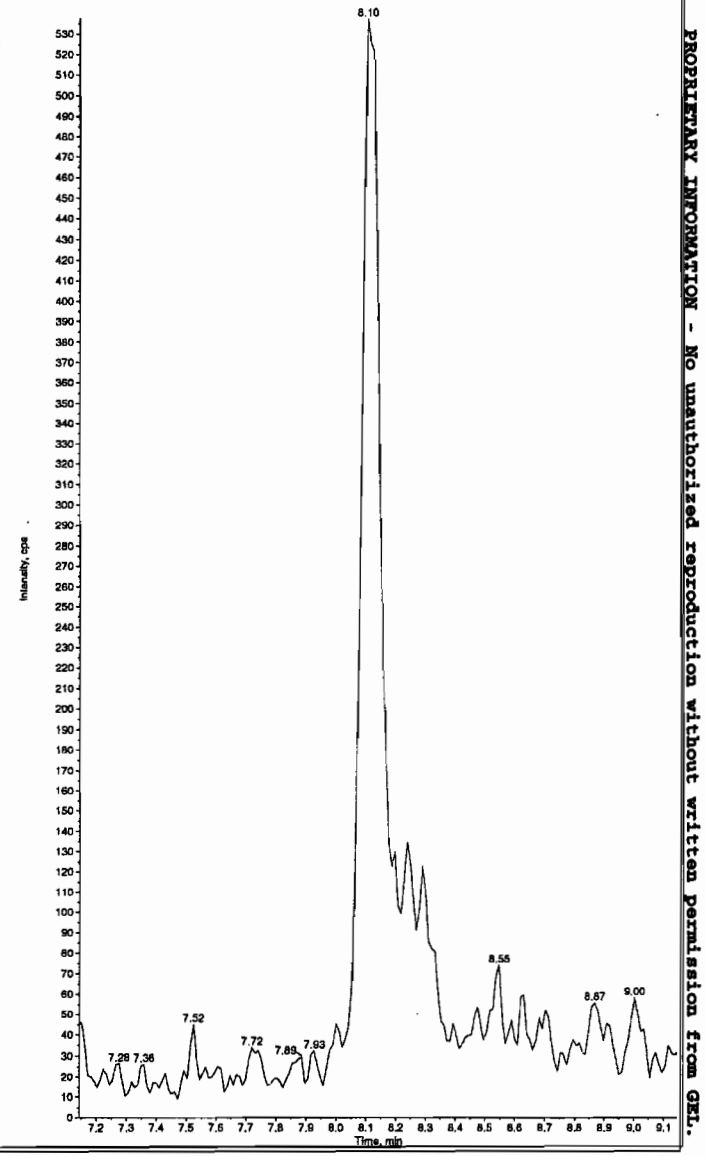
Modified: No



Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04090064.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: 4/9/2010
Acq. Time: 11:44:19 PM

Modified: No



HMM 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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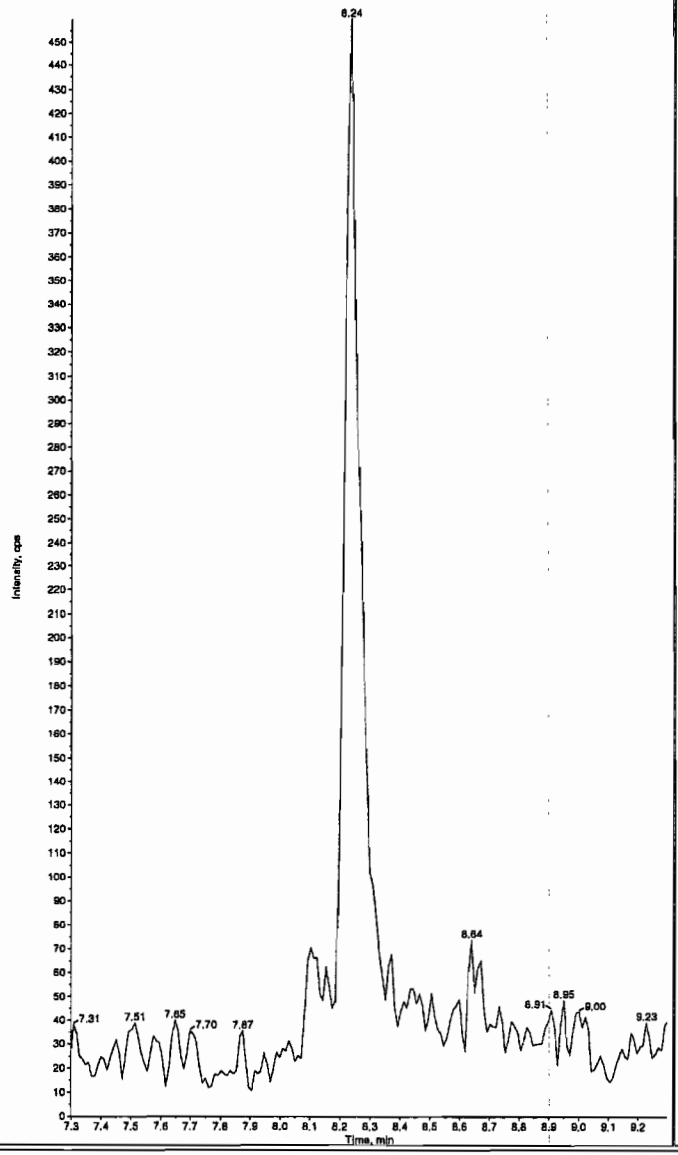
Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04090064.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:      N/A
Calculated Conc:    0.00     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       11:44:19 PM

Modified:           No
```



Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04090064.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:       4/9/2010
Acq. Time:       11:44:19 PM

Modified:           No
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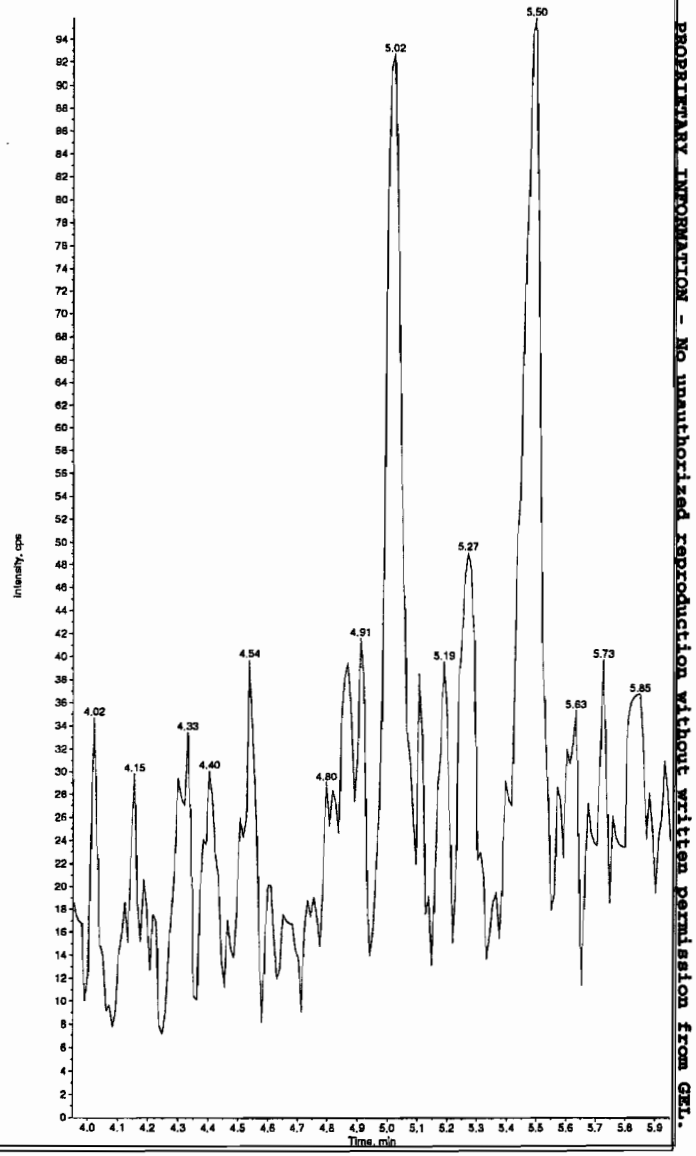

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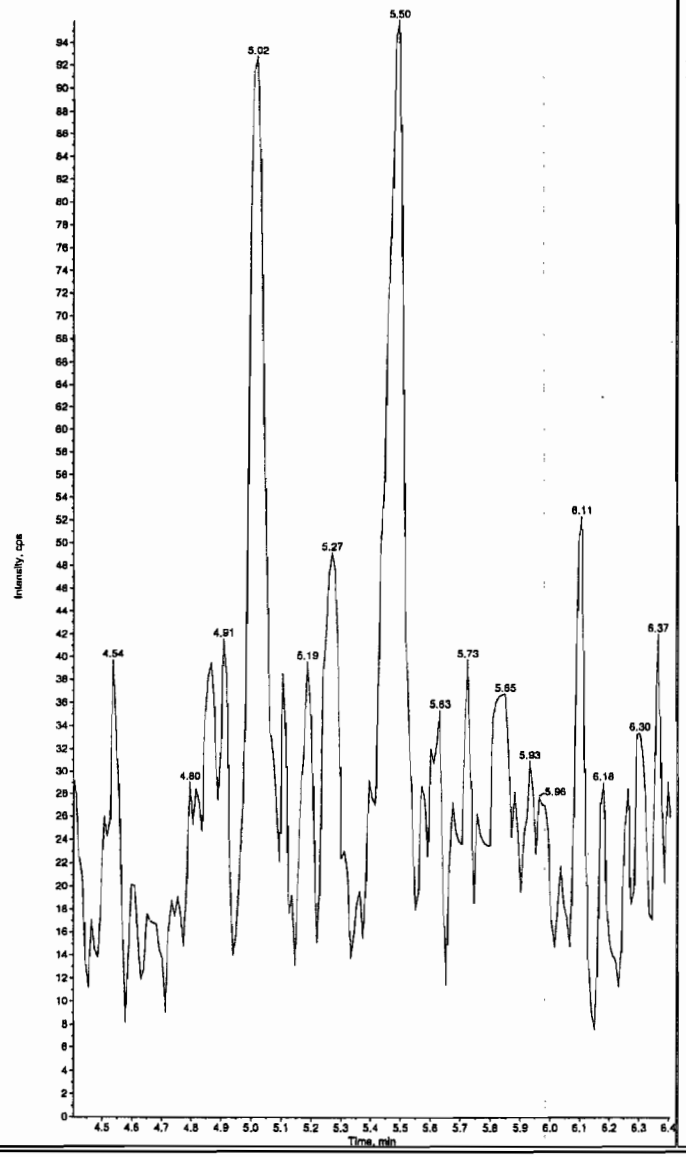
Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04090064.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:44:19 PM

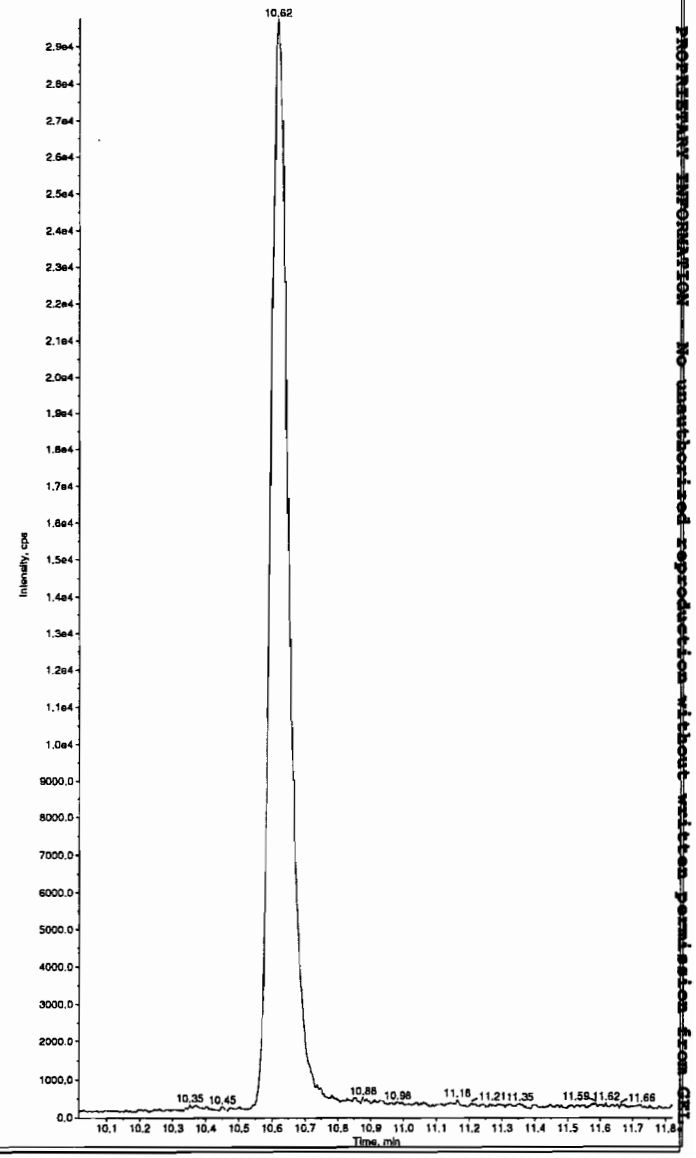
Modified: No



Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04090064.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: 0.00 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:44:19 PM

Modified: No



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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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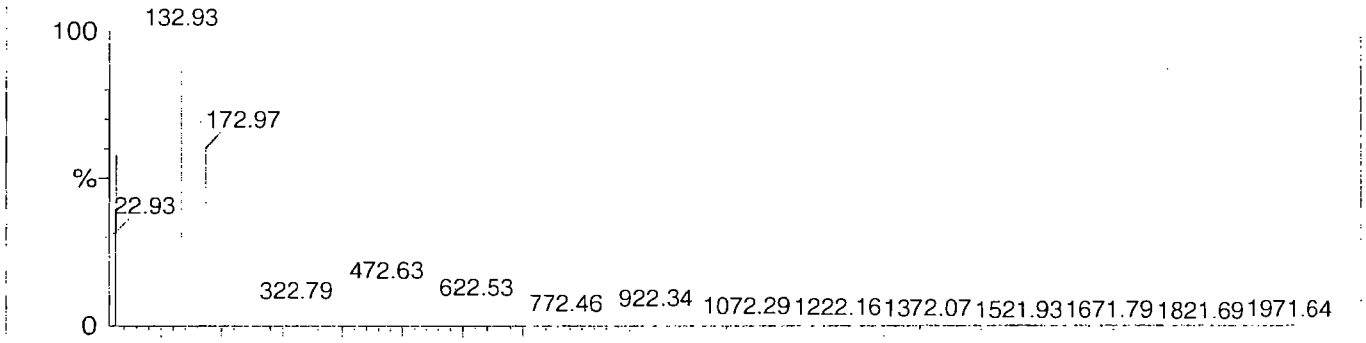
Calibration Report - MS1 Static

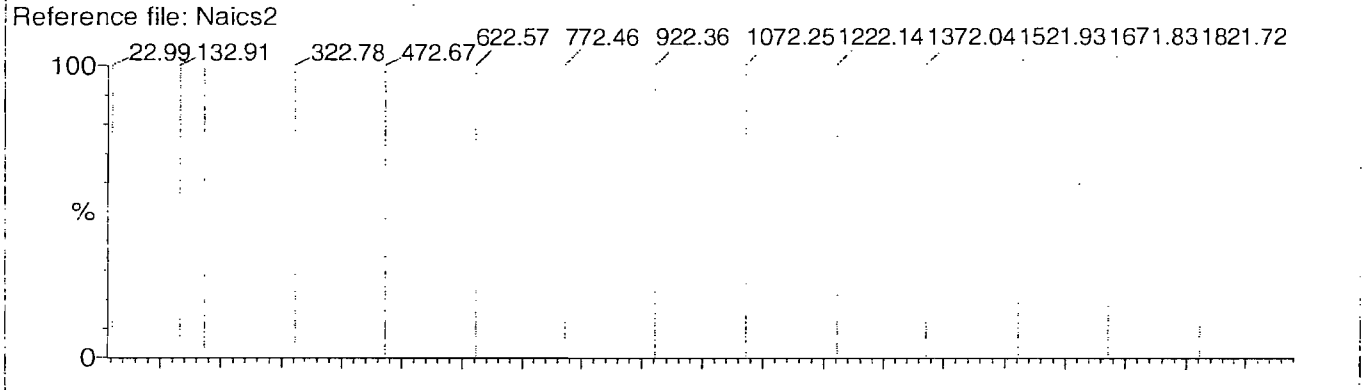
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

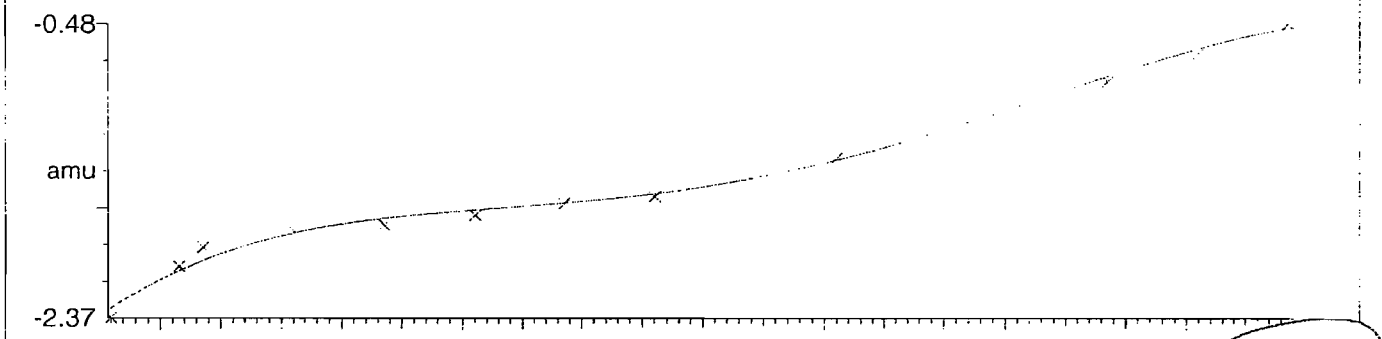
15 matches of 15 tested references



Reference file: Naics2



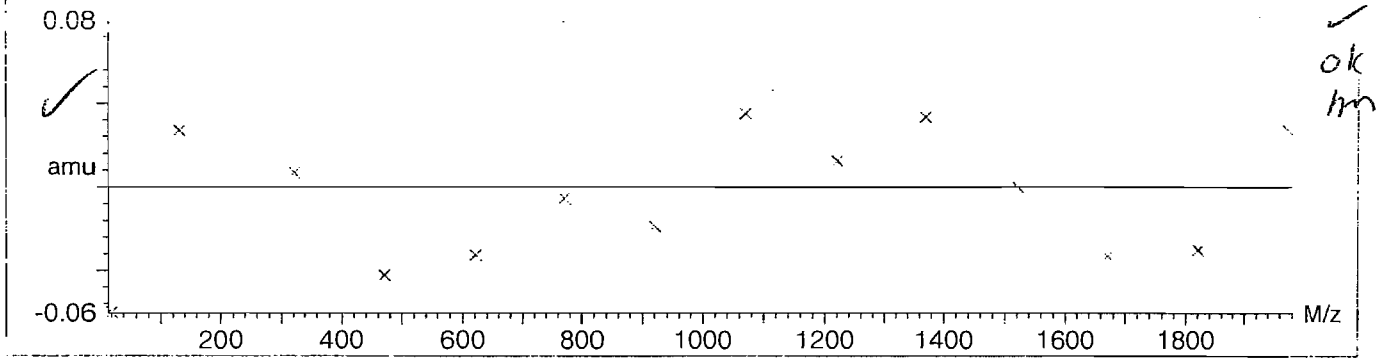
Mass difference (Raw - Ref mass)



Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm



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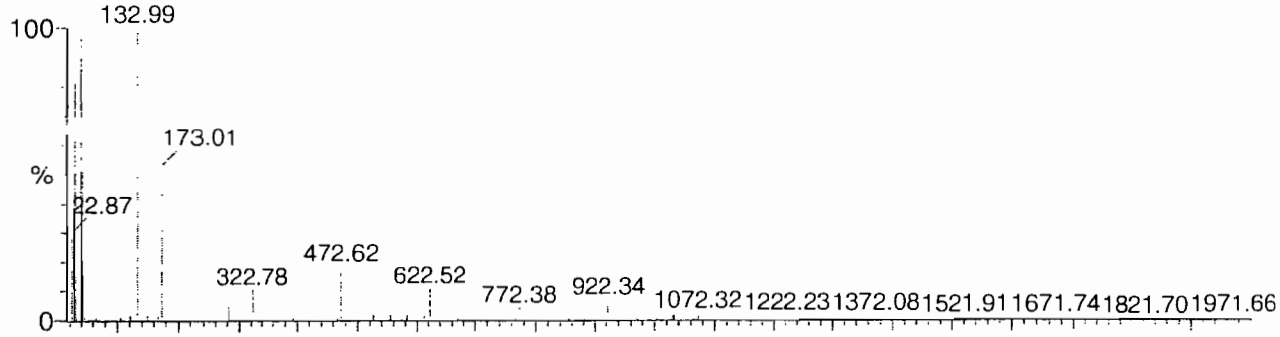
Calibration Report - MS1 Scanning

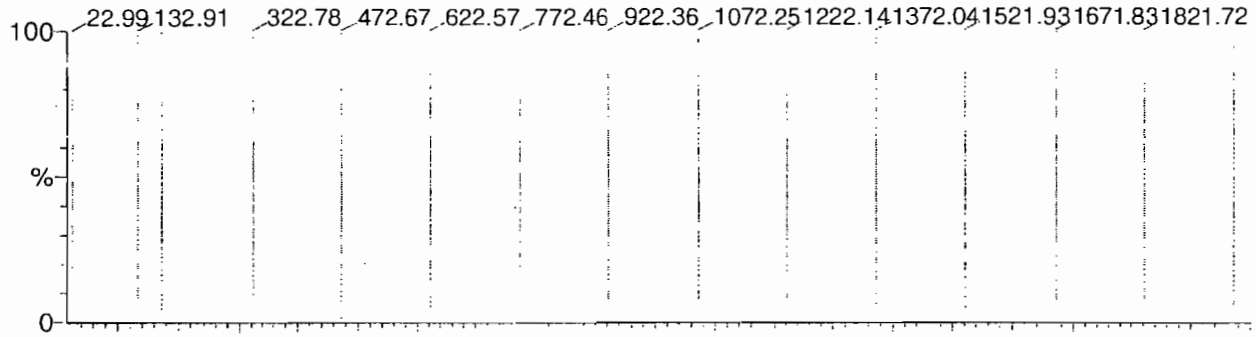
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

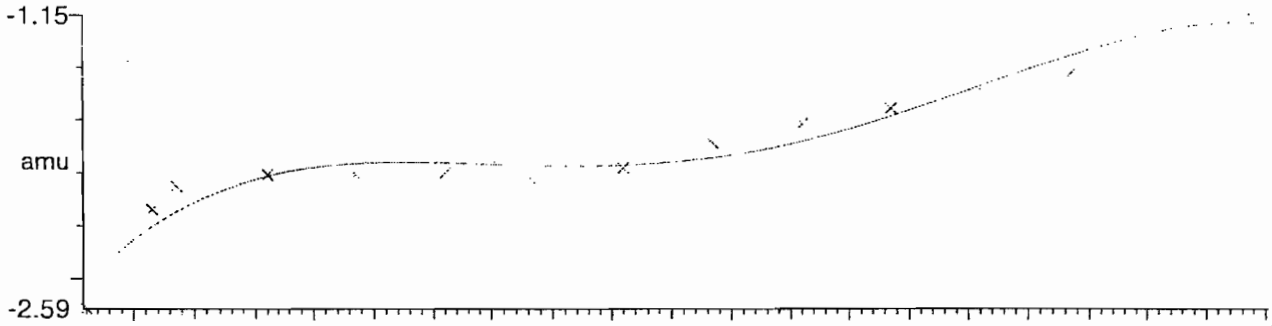
15 matches of 15 tested references



Reference file: Naics2



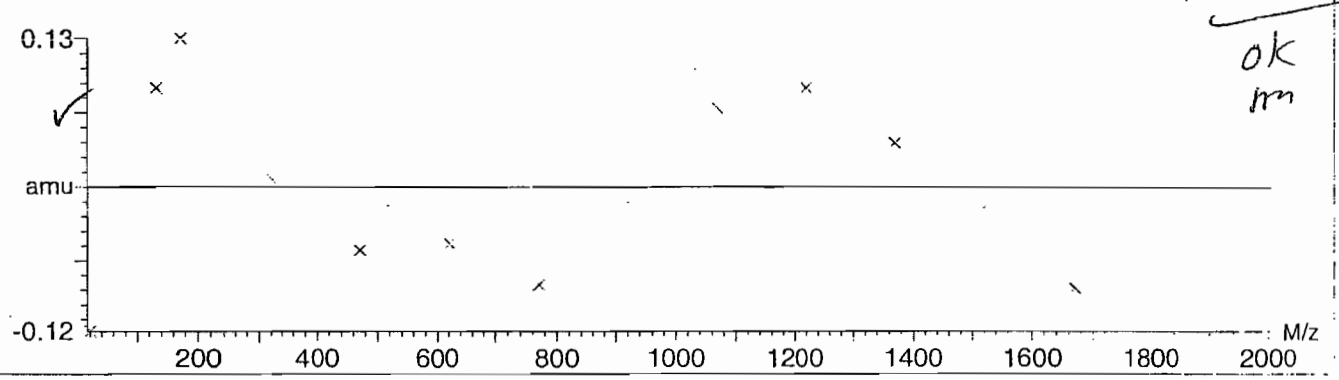
Mass difference (Raw - Ref mass)



Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m



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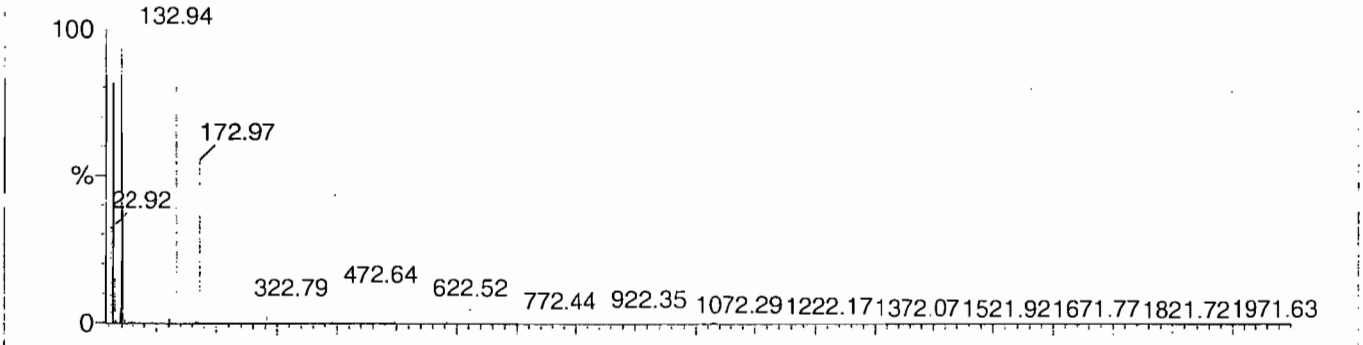
Calibration Report - MS1 Scan Speed Compensation

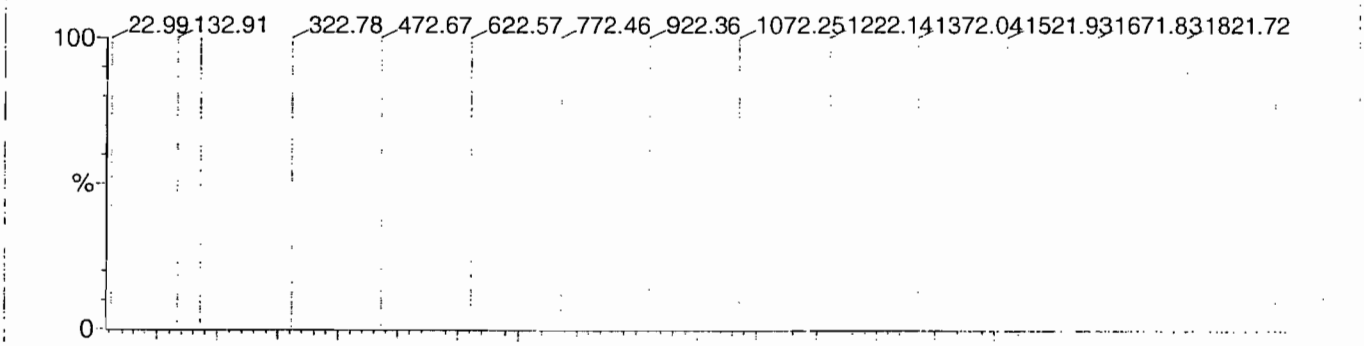
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

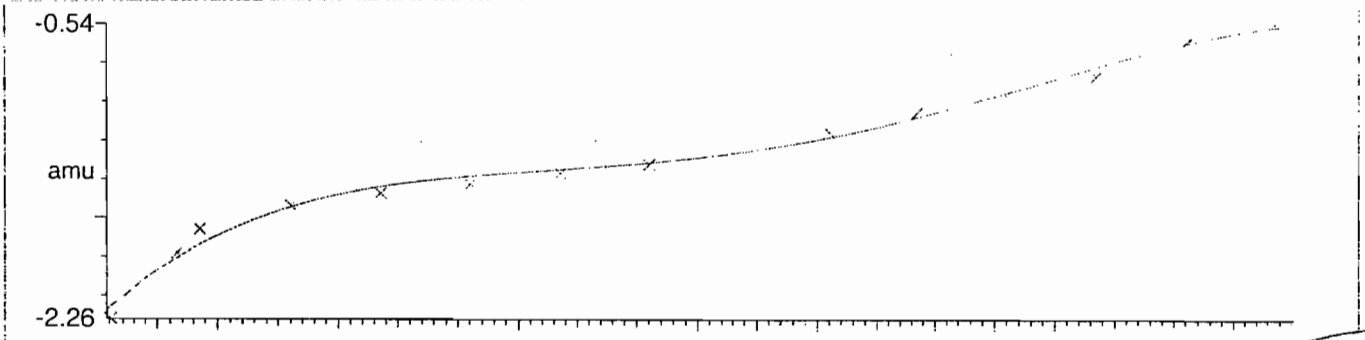
15 matches of 15 tested references



Reference file: Naics2

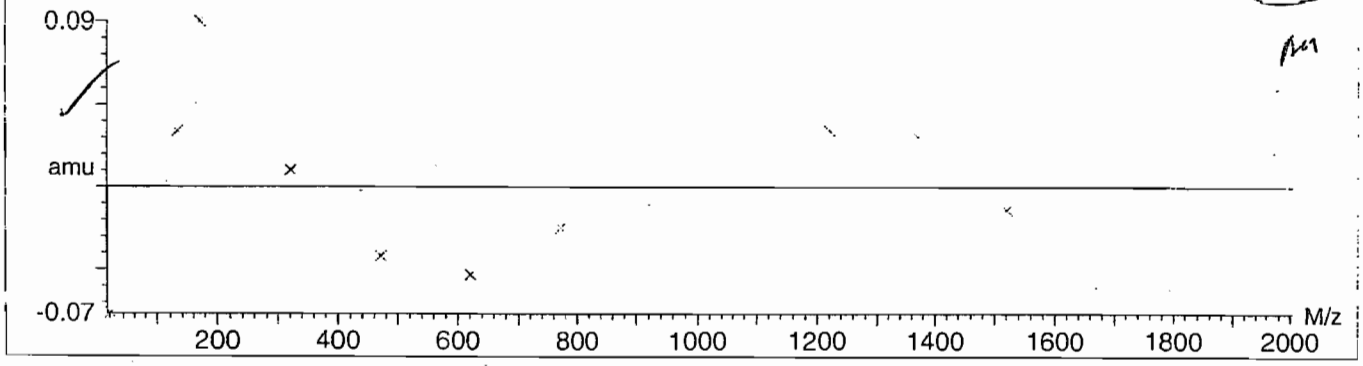


Mass difference (Raw - Ref mass)



Residuals

Mean residual = 3.486639e-9 ± 0.040487



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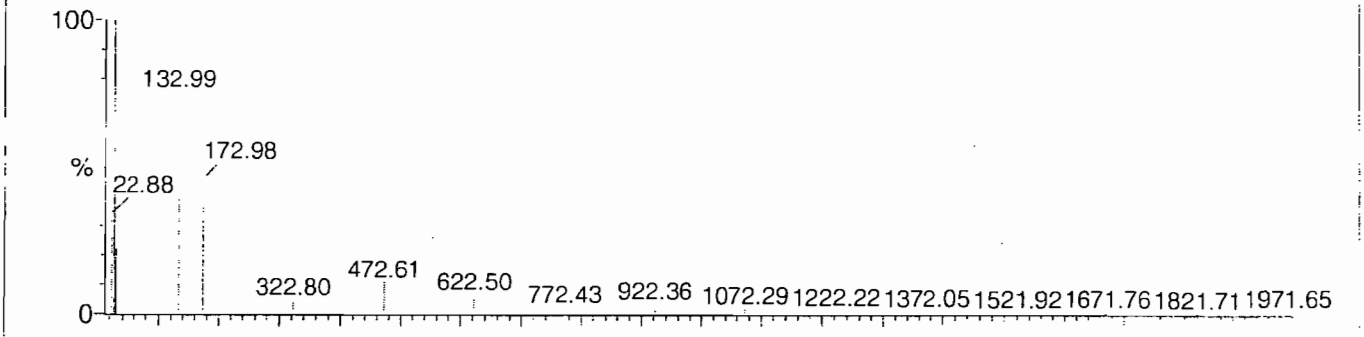
Calibration Report - MS2 Static

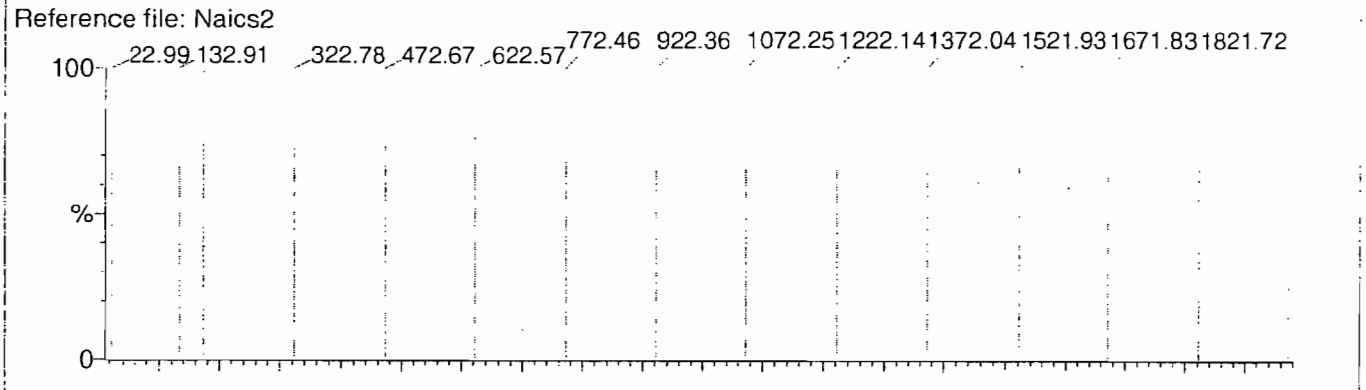
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

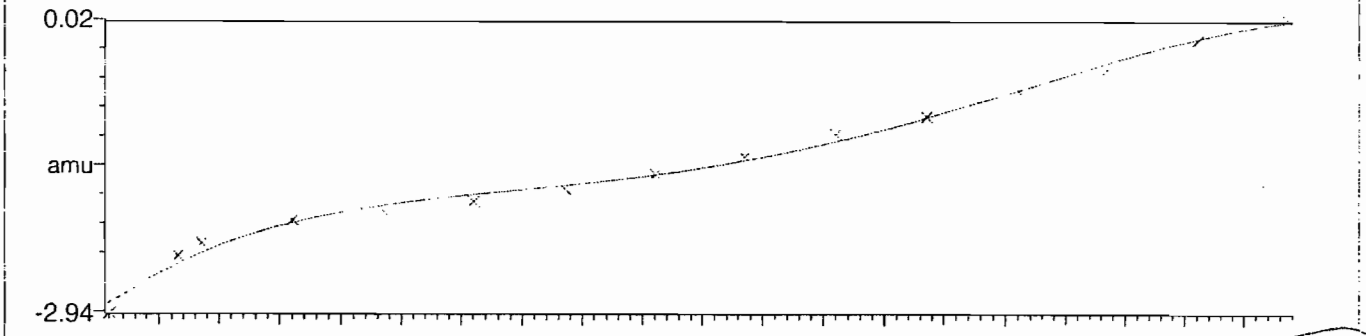
15 matches of 15 tested references



Reference file: Naics2

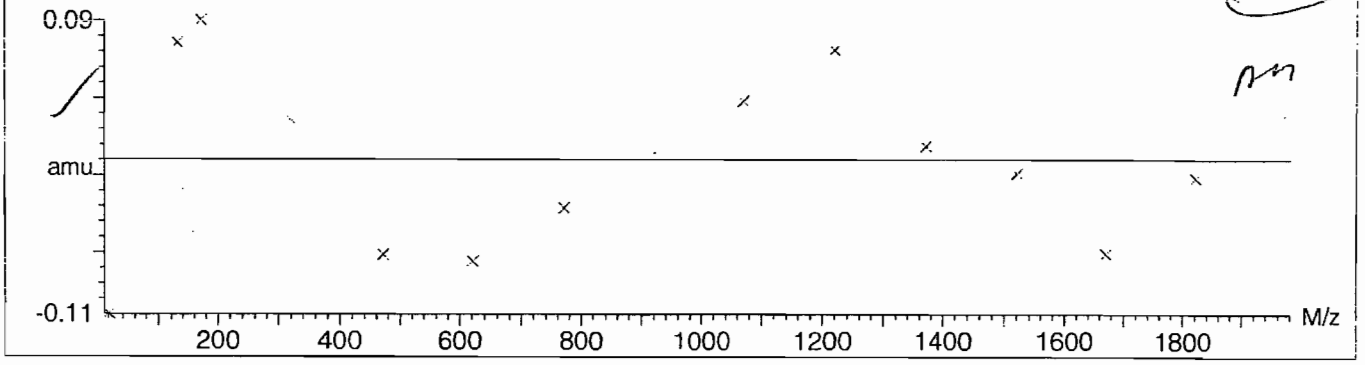


Mass difference (Raw - Ref mass)



Residuals

Mean residual = 2.048910e-9 ± 0.057803



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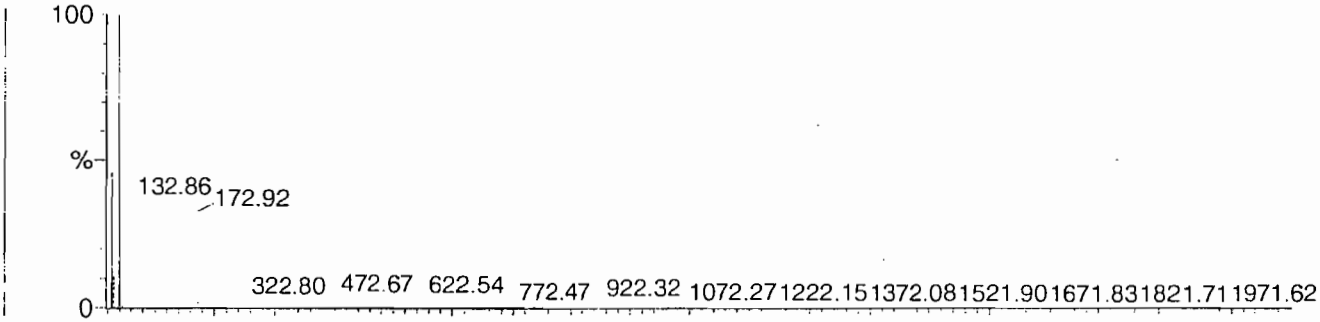
Calibration Report - MS2 Scanning

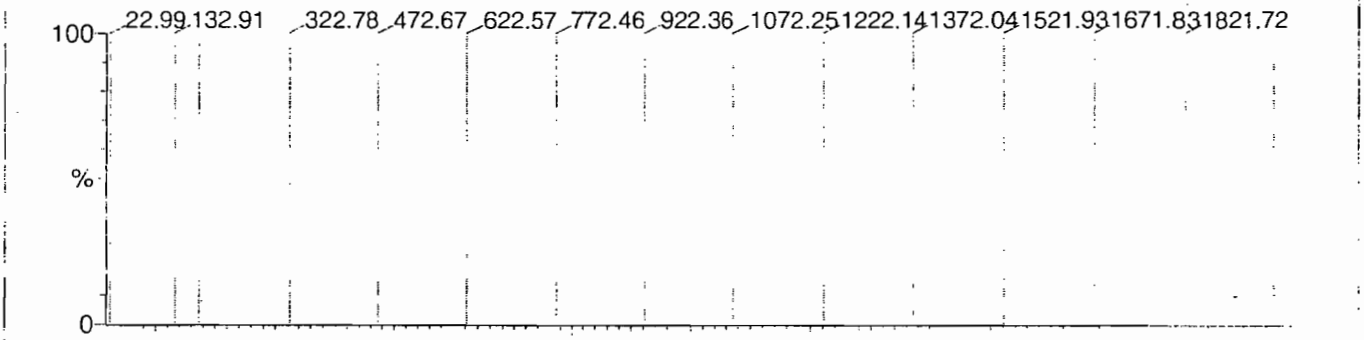
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

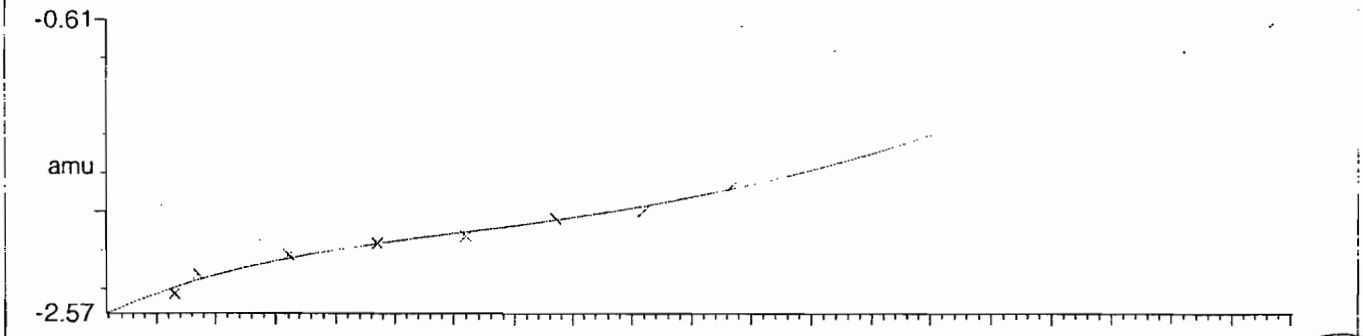
14 matches of 15 tested references



Reference file: Naics2

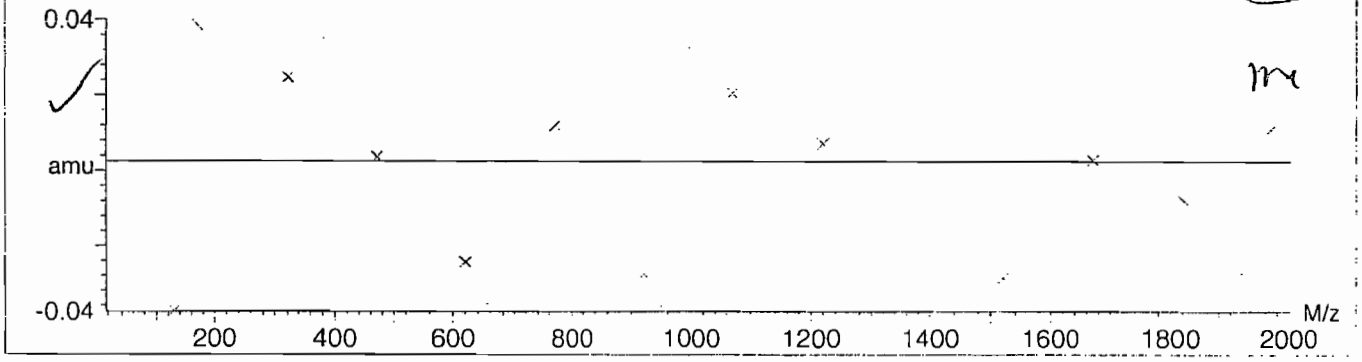


Mass difference (Raw - Ref mass)



Residuals

Mean residual = -2.623502e-9 ± 0.025622



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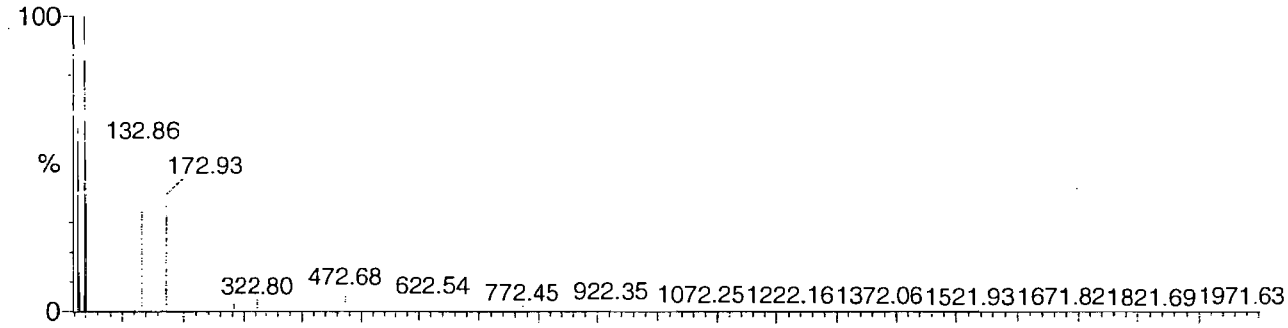
Calibration Report - MS2 Scan Speed Compensation

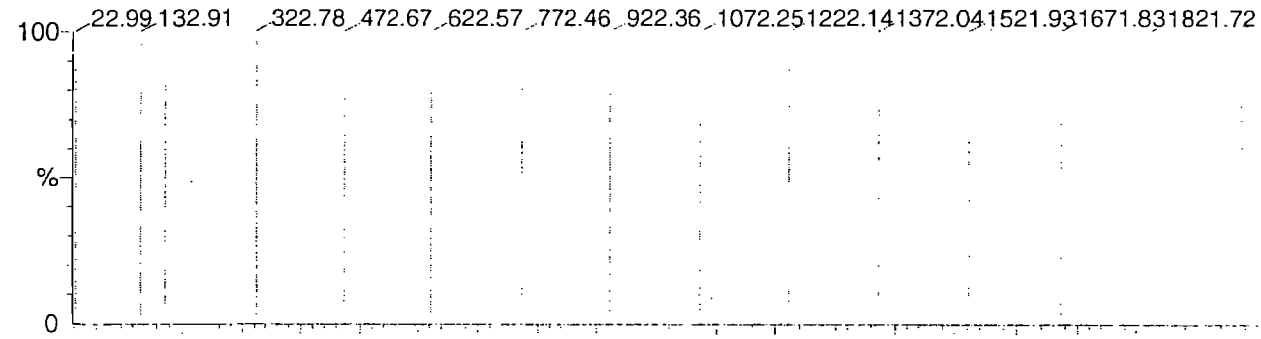
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

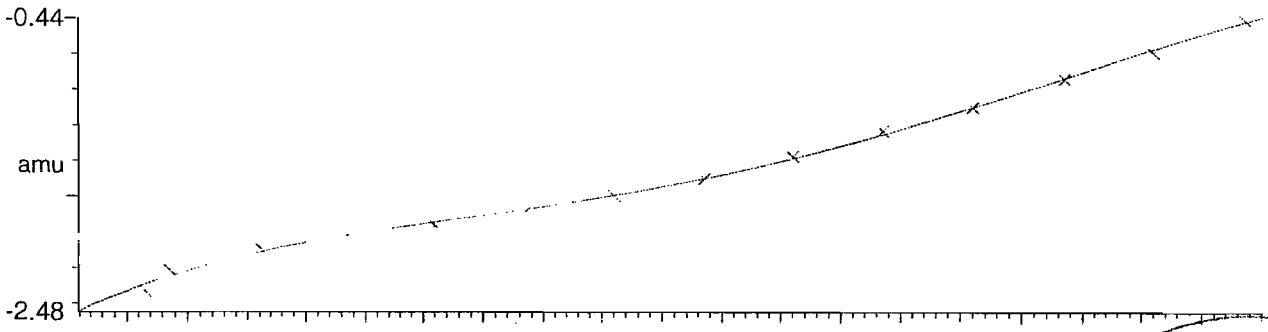
14 matches of 15 tested references



Reference file: Naics2



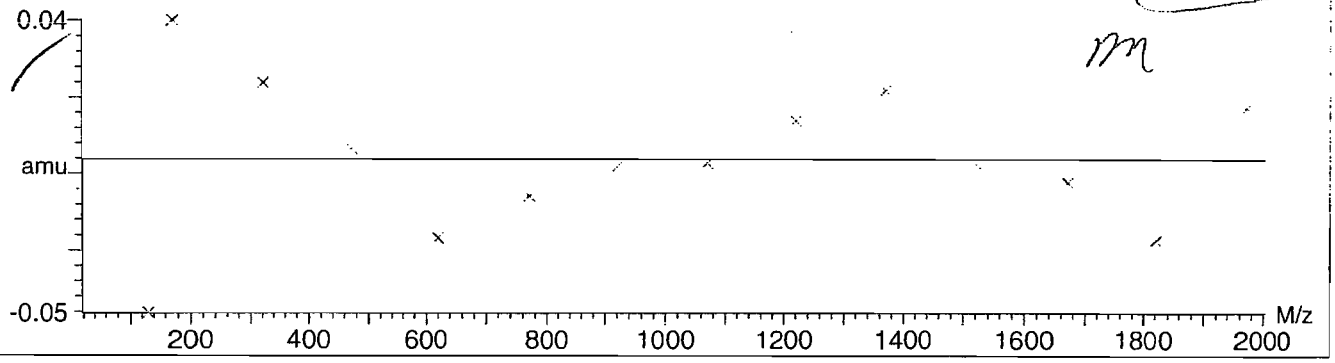
Mass difference (Raw - Ref mass)



Residuals

Mean residual = -6.785350e-9 ± 0.023134

m



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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

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) #
			16516666.667	10.5	73466666.667	14.65
Upper Limit			21471666.6671	11	95506666.6671	15.15
Lower Limit			11561666.6669	10	51426666.6669	14.15
MB for batch 961016	16–apr–10 14:15	EXP0415066.w	13900000	10.5	59200000	14.7
LCS for batch 961016	16–apr–10 14:41	EXP0415067.w	13600000	10.5	67200000	14.6
RE36–10–8292	16–apr–10 16:24	EXP0415071.w	15500000	10.5	73100000	14.6

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: RE36-10-8292

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 248517001

Sample Amount 2

Moisture: 22.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415071.wiff

Date Analyzed: 16-APR-10 16:24

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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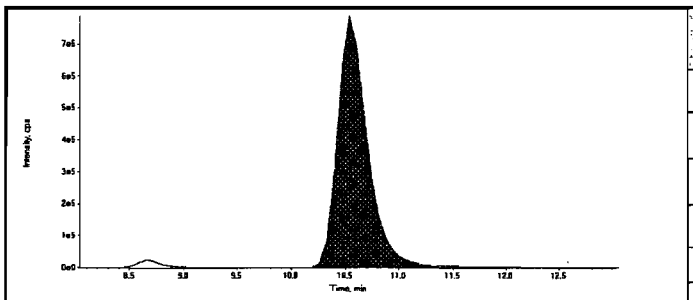
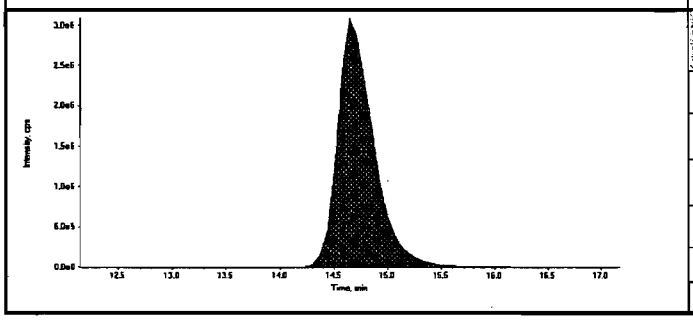
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

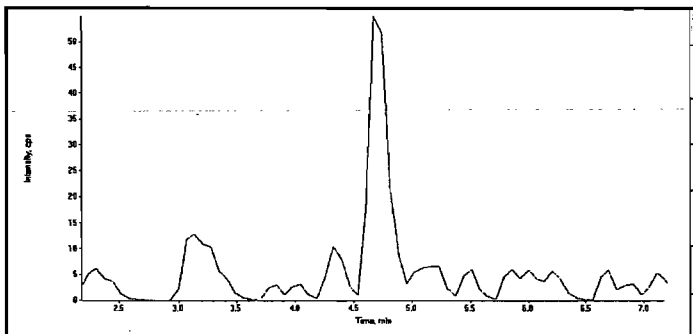
Data File	EXP0415071.wiff	**Acquisition Date**	4/16/2010 4:24:52 PM
Sample Name	248517001	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	041510.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



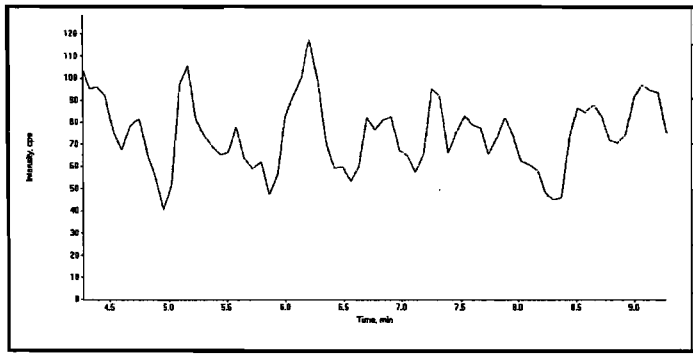
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	73100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LER 4/23/10 04/23/10

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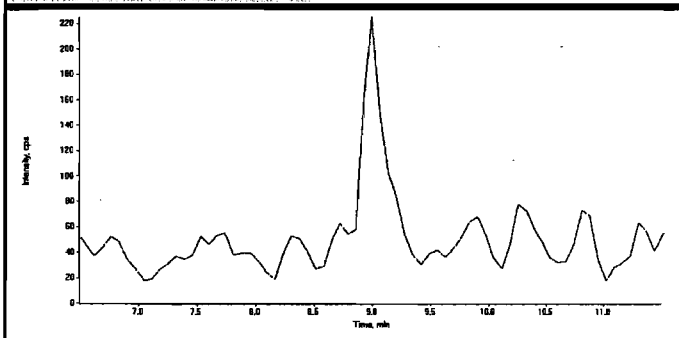
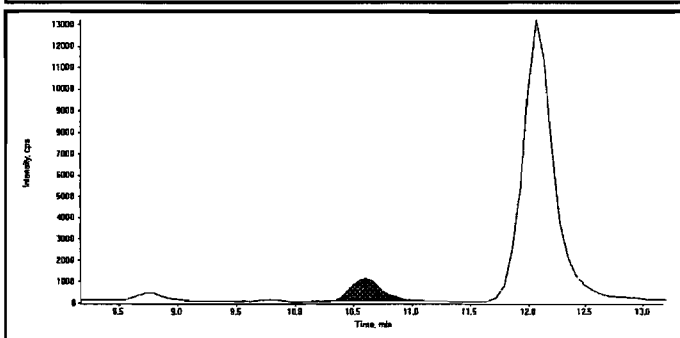
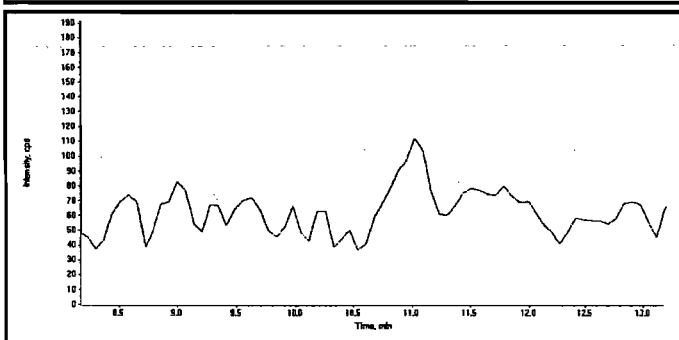
Data File	EXP0415071.wiff	**Acquisition Date**	4/16/2010 4:24:52 PM
Sample Name	248517001	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	041510.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



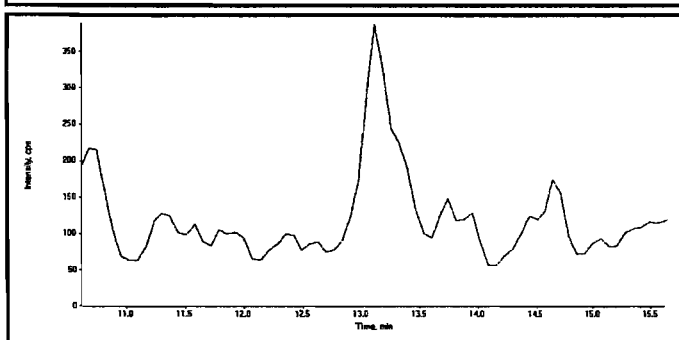
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	2.23e+004
Manual Modification	No
Amount:	4.38 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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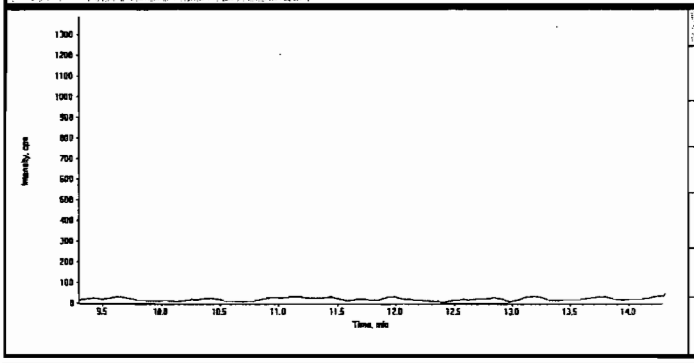
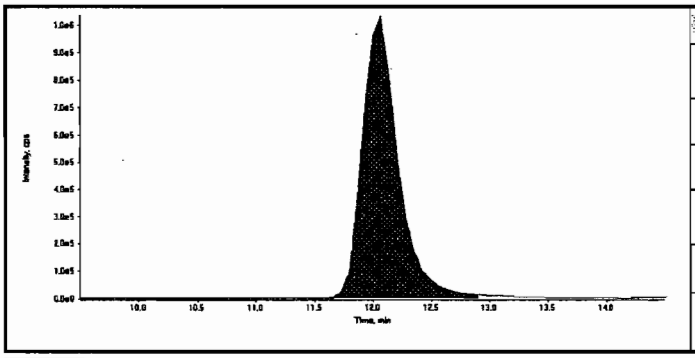
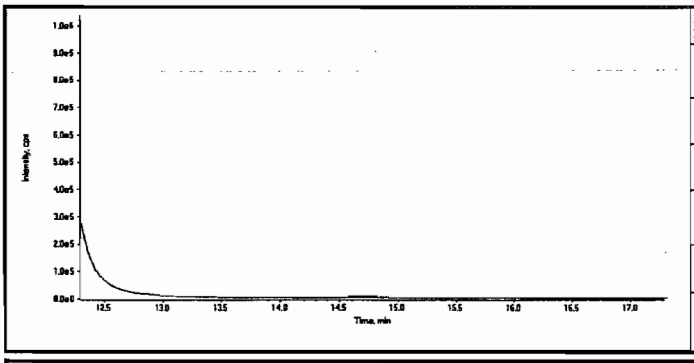
Data File	EXP0415071.wiff	**Acquisition Date**	4/16/2010 4:24:52 PM
Sample Name	248517001	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	041510.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



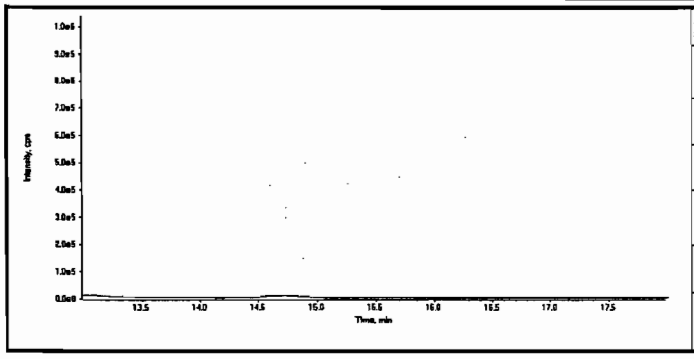
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.23e+007
Manual Modification	No
Amount:	232. (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	2.68e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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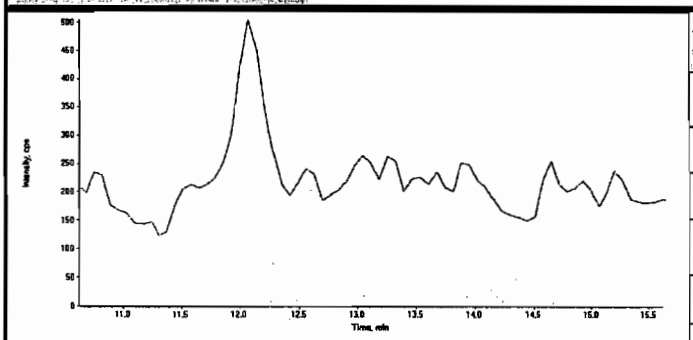
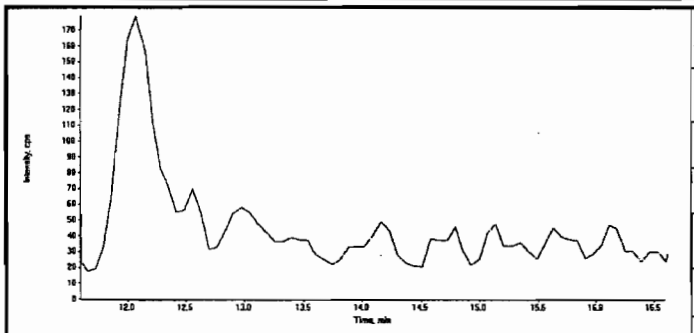
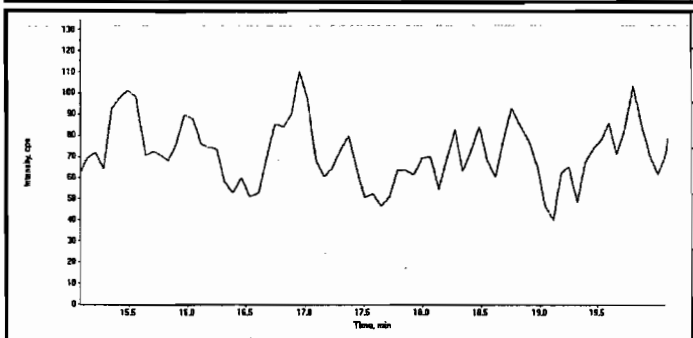
Data File	EXP0415071.wiff	**Acquisition Date**	4/16/2010 4:24:52 PM
Sample Name	248517001	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	041510.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



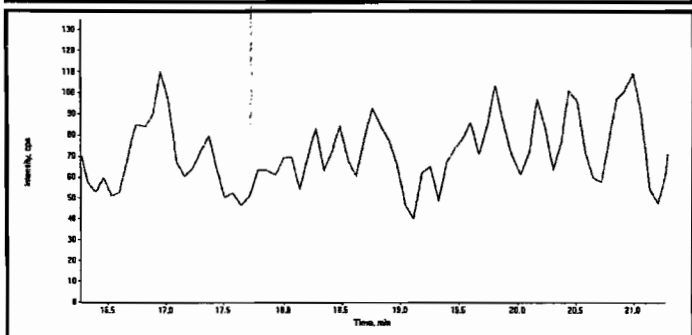
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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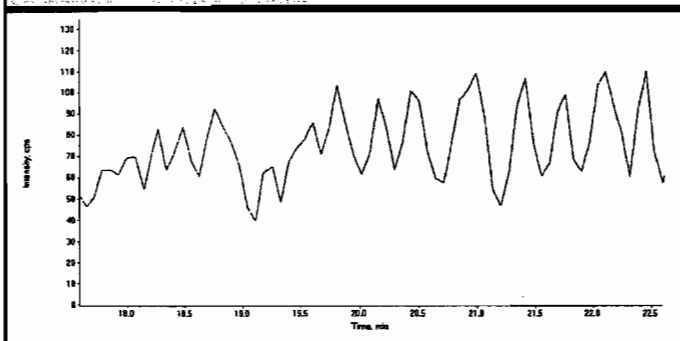
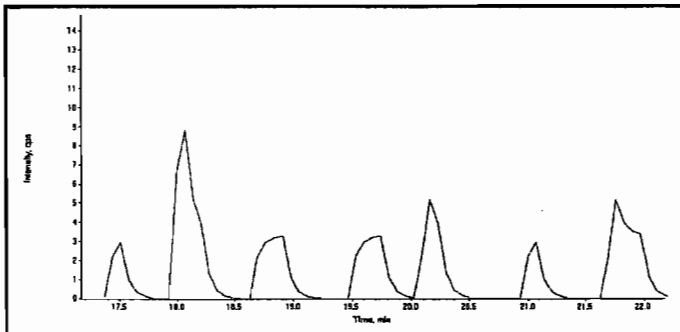
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415071.wiff	**Acquisition Date**	4/16/2010 4:24:52 PM
Sample Name	248517001	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	041510.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8292

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 248517001

Sample Amount 2

Moisture: 22.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090053.wiff

Date Analyzed: 09-APR-10 20:51

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 =

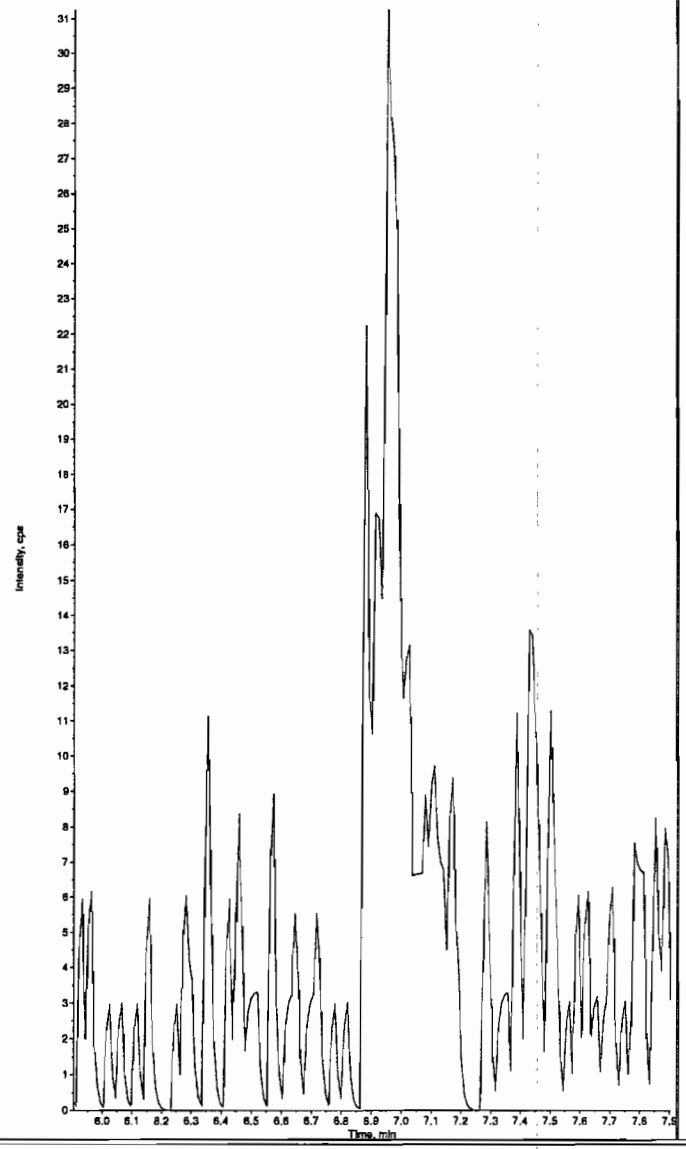
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 4/12/10

Sample Name: "248517001" Sample ID: "961033|2|LER" File: "EXS04090053.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: 4/9/2010
Acq. Time: 8:51:36 PM

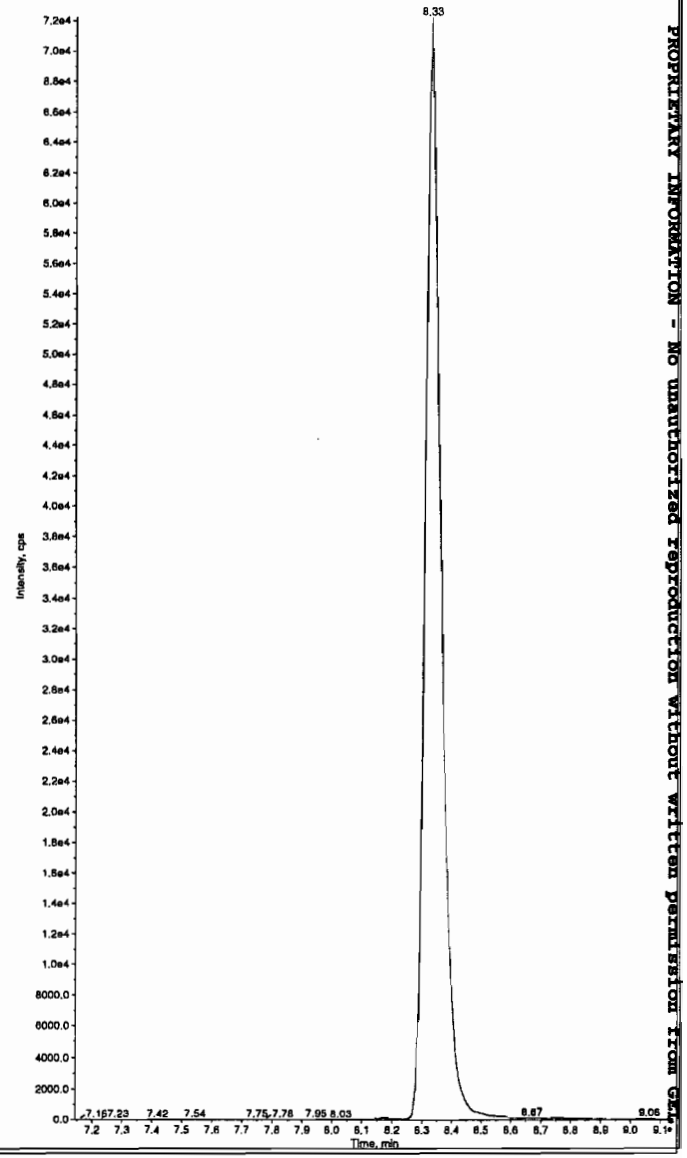
Modified: No



Sample Name: "248517001" Sample ID: "961033|2|LER" File: "EXS04090053.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: 4/9/2010
Acq. Time: 8:51:36 PM

Modified: No



Hnm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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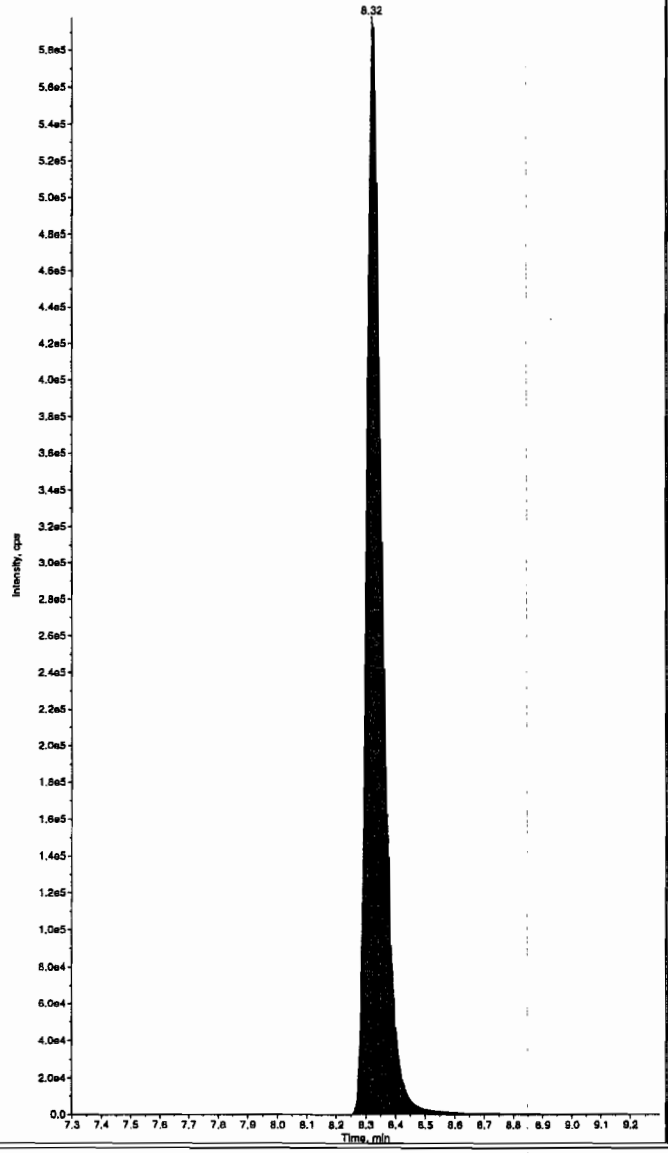
Sample Name: "248517001" Sample ID: "961033|2|LER" File: "EXS04090053.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 261. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 8:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

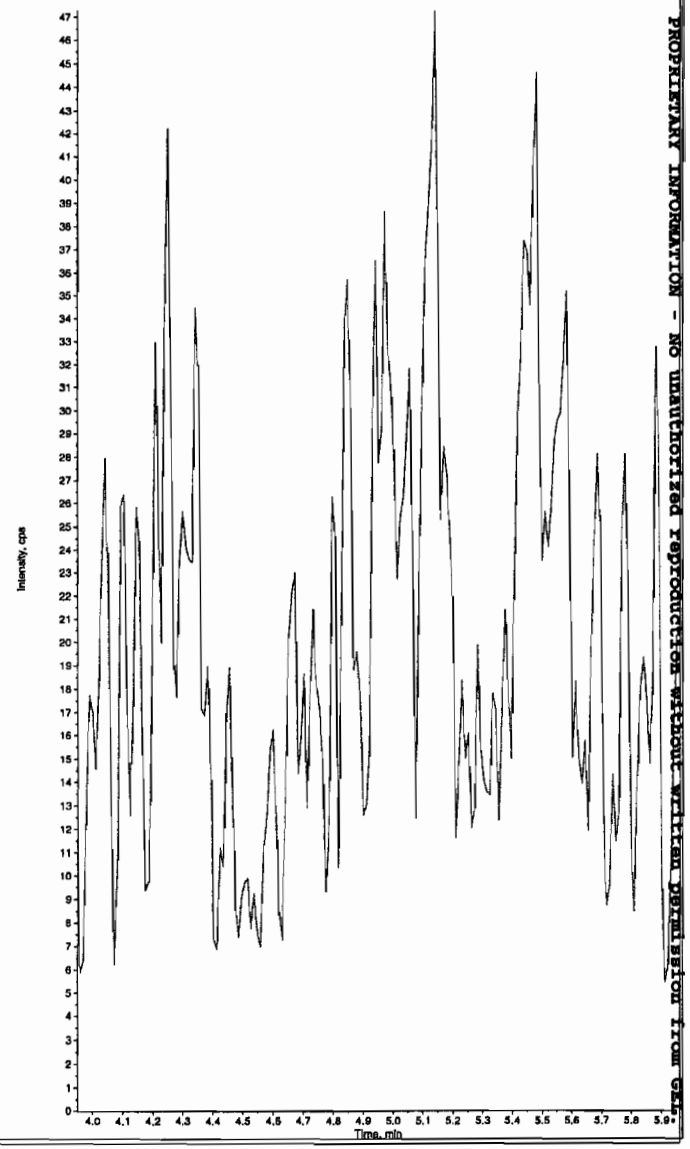
Int. Type: Valley
Retention Time: 8.32 min
Area: 2.34e+006 counts
Height: 597786.377 cps
Start Time: 8.23 min
End Time: 8.83 min



Sample Name: "248517001" Sample ID: "961033|2|LER" File: "EXS04090053.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: 4/9/2010
Acq. Time: 8:51:36 PM

Modified: No



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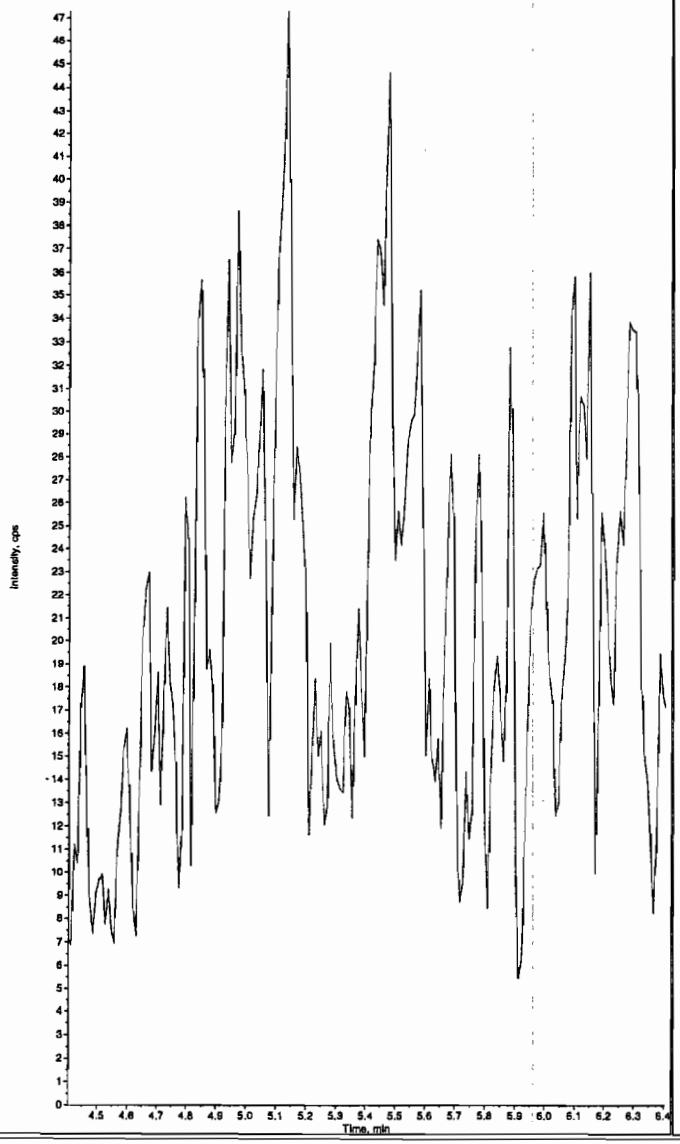
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "248517001" Sample ID: "961033|2|LER" File: "EXS04090053.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:       4/9/2010
Acq. Time:       8:51:36 PM

Modified:            No
```

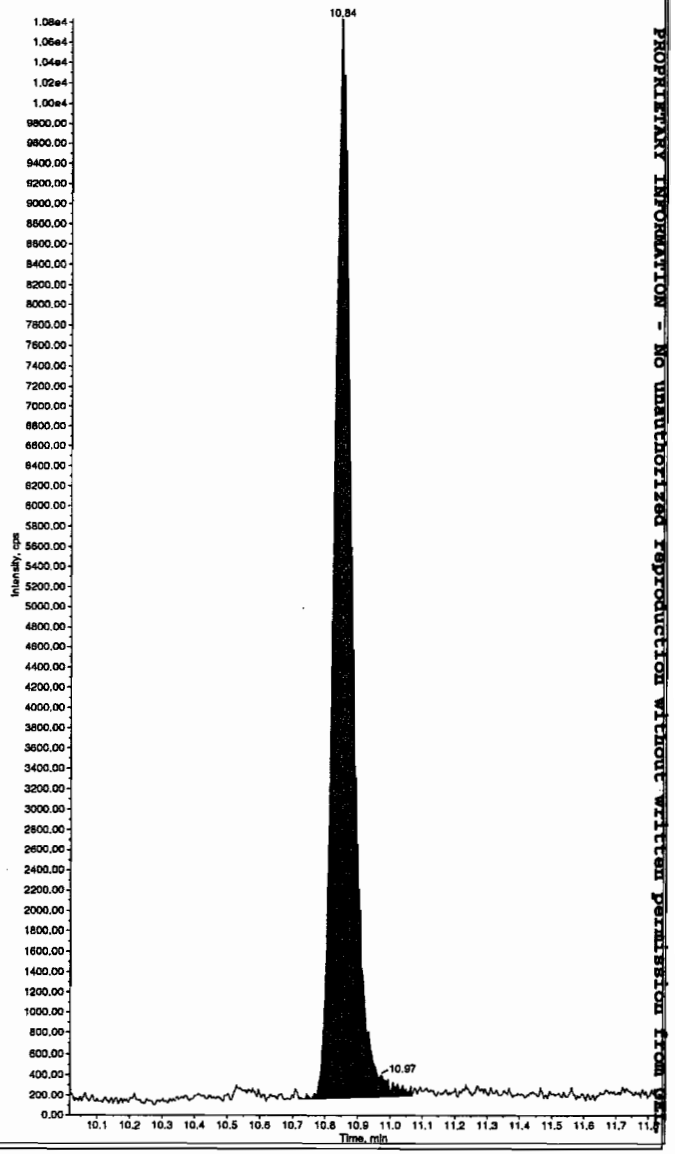


Sample Name: "248517001" Sample ID: "961033|2|LER" File: "EXS04090053.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:       N/A
Calculated Conc:     1.01     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:51:36 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:        10.8     min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8     min
Area:          4.27e+004     counts
Height:        10662.770     cps
Start Time:         10.7     min
End Time:           11.1     min
```



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STANDARDS DATA

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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)

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2198

Lab Code: GEL

Run Date: 09-APR-10,15-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	50	51	52	53	54	55	Ave RF	RSD	Q
Data File:	EXP0415003.wi	EXP0415004.wi	EXP0415005.wi	EXP0415006.wi	EXP0415007.wi	EXP0415008.wi			
Parmname									
2-Amino-4,6-dinitrotoluene	.017	.018	.019	.02	.019	.02	0.019	5.27	

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: 10-2198

Lab Code: GEL

Run Date: 09-APR-10,15-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:	EXP0415003.w	EXP0415004.w	EXP0415005.w	EXP0415006.w	EXP0415007.w	EXP0415008.w				
Parmname										
2,4-Dinitrotoluene	867000	1320000	6590000	12700000	23100000	31000000	.201	.004	.9975	
2,6-Dinitrotoluene	2230000	4090000	16300000	32600000	64900000	76800000	.519	.015	.9989	
3,4-Dinitrotoluene	1280000	2680000	10100000	19600000	38300000	49000000	.645	.006	.9996	
4-Amino-2,6-dinitrotoluene	1700000	3380000	12800000	27100000	51600000	67400000	.442	.004	.9991	
HMX	831000	1760000	6640000	13400000	26200000	35900000	1.02	.003	.9994	
Nitrobenzene	77500	169000	654000	1230000	2760000	3530000	.103	-.001	.9995	
PETN	14800	29600	126000	246000	478000	609000	.004	0	.9995	
RDX	453000	926000	3250000	6800000	13900000	17500000	.513	.005	.9996	

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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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2198

Lab Code: GEL

Run Date: 09-APR-10,15-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0415003.wiff	EXP0415004.wiff	EXP0415005.wiff	EXP0415006.wiff	EXP0415007.wiff	EXP0415008.wiff					
Parmname:											
1,3,5-Trinitrobenzene	6270000	12600000	47100000	84900000	139000000	167000000	.035	7.66	-1.44	.9996	
2,4,6-Trinitrotoluene	12200000	23700000	80500000	146000000	227000000	262000000	.045	2.88	-.594	.999	
Tetryl	2050000	4060000	14900000	29900000	60000000	74300000	-.02	2.53	-.176	.9998	
m-Dinitrobenzene	2530000	5200000	18300000	35700000	68300000	80900000	-.027	3.2	-.41	.9996	
m-Nitrotoluene	21000	42200	167000	350000	704000	912000	0	.00581	0	.9997	
o-Nitrotoluene	27900	53800	227000	473000	918000	1170000	0	.0082	0	.9996	
p-Nitrotoluene	14800	30500	123000	256000	492000	601000	0	.00471	0	.9998	

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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041510ICAL

Peak Name: 13-Dinitrobenzene-d4
Use as Internal Standard
Q1/Q3 Masses: 172.05/46.10 amu
Peak Name: 26-Dinitrotoluene-d3
Use as Internal Standard
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 341.20/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.00321
Slope 1.02
Correlation coefficient 0.9994
Use Area

Peak Name: RDX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 267.01/46.10 amu

Fit Linear Weighting None Iterate No
Intercept 0.00478
Slope 0.513
Correlation coefficient 0.9996
Use Area

Peak Name: 135-Trinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 212.97/182.80 amu

Fit Quadratic Weighting None Iterate No
a0 0.035
a1 7.66
a2 -1.44
Correlation coefficient 0.9996
Use Area

Peak Name: 13-Dinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 167.95/137.90 amu

Fit Quadratic Weighting None Iterate No
a0 -0.0265

Lan 4/28/10

Jnm 04/23/10

a1 3.2
a2 -0.41
Correlation coefficient 0.9996
Use Area

Peak Name: Tetryl
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 240.95/180.80 amu

Fit Quadratic Weighting None Iterate No
a0 -0.0195
a1 2.53
a2 -0.176
Correlation coefficient 0.9998
Use Area

Peak Name: 246-Trinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 227.12/209.80 amu

Fit Quadratic Weighting None Iterate No
a0 0.0447
a1 2.88
a2 -0.594
Correlation coefficient 0.9990
Use Area

Peak Name: Nitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 123.04/46.00 amu

Fit Linear Weighting None Iterate No
Intercept -0.00109
Slope 0.103
Correlation coefficient 0.9995
Use Area

Peak Name: 34-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.00614
Slope 0.645

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Correlation coefficient 0.9996
Use Area

Peak Name: 26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.0148
Slope 0.519
Correlation coefficient 0.9989
Use Area

Peak Name: 24-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.00445
Slope 0.201
Correlation coefficient 0.9975
Use Area

Peak Name: 4-Amino-26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/167.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.00386
Slope 0.442
Correlation coefficient 0.9991
Use Area

Peak Name: 2-Amino-46-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/180.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0187
Standard deviation 0.000985
%RSD 5.27
Use Area

Peak Name: 2-Nitrotoluene

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Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Quadratic Weighting None Iterate No
a0 -4.27e-005
a1 0.0082
a2 -0.000221
Correlation coefficient 0.9996
Use Area

Peak Name: 4-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Quadratic Weighting None Iterate No
a0 -5.61e-005
a1 0.00471
a2 -0.000341
Correlation coefficient 0.9998
Use Area

Peak Name: 3-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Quadratic Weighting None Iterate No
a0 6.71e-006
a1 0.00581
a2 0.000115
Correlation coefficient 0.9997
Use Area

Peak Name: PETN
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 361.06/62.00 amu

Fit Linear Weighting None Iterate No
Intercept 6.18e-005
Slope 0.00403
Correlation coefficient 0.9995
Use Area

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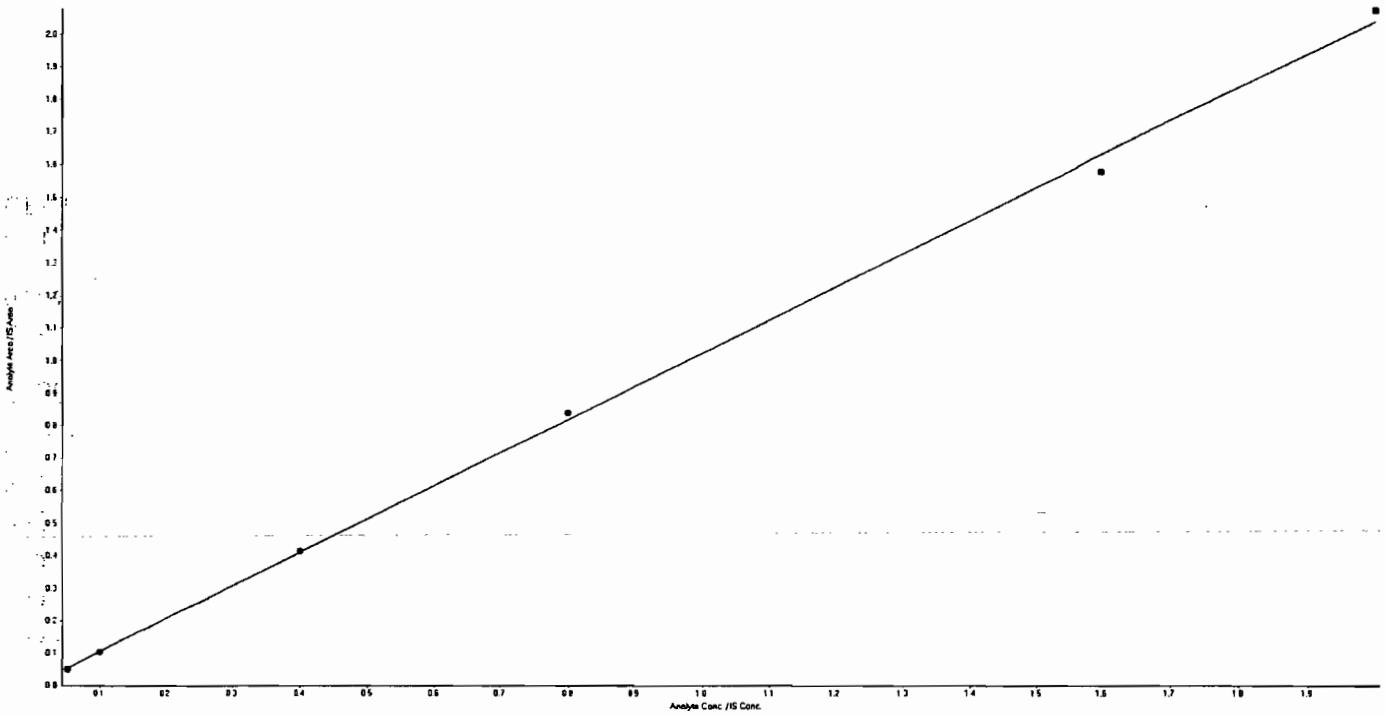
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

041510.rdb
Analyte Name: HMX

Regression Equation: y = 1.02 x + 0.00321 (r = 0.9994)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.21	92.8
50	49.57	99.1
200	201.75	100.9
400	409.94	102.5
800	773.96	96.7
1000	1016.57	101.7



Anne 04/23/10

Lan 4/23/10

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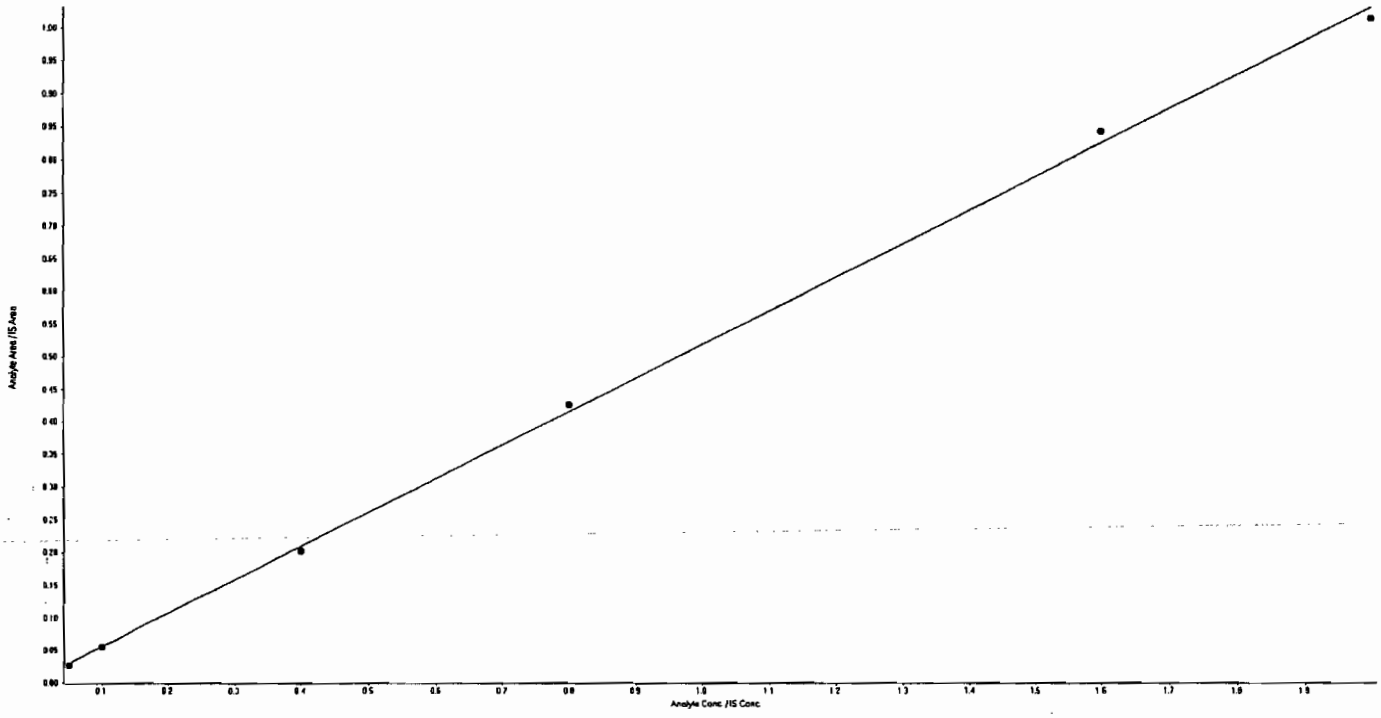
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Analyte Name: RDX

Regression Equation: y = 0.513 x + 0.00478 (r = 0.9996)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.20	88.8
50	48.80	97.6
200	192.85	96.4
400	410.51	102.6
800	816.45	102.1
1000	984.20	98.4



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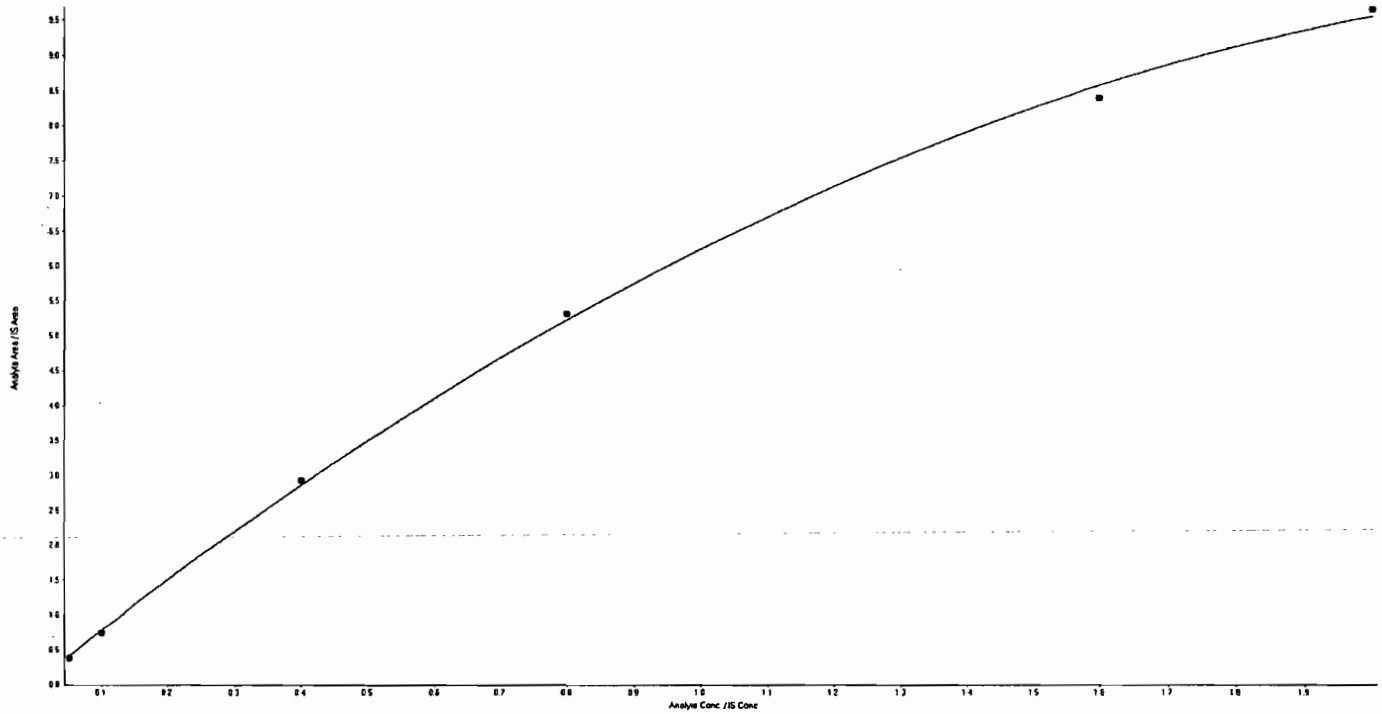
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Analyte Name: 135-Trinitrobenzene

Regression Equation: y = -1.44 x^2 + 7.66 x + 0.035 (r = 0.9996)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.81	91.2
50	47.16	94.3
200	205.62	102.8
400	407.70	101.9
800	771.39	96.4
1000	1027.28	102.7



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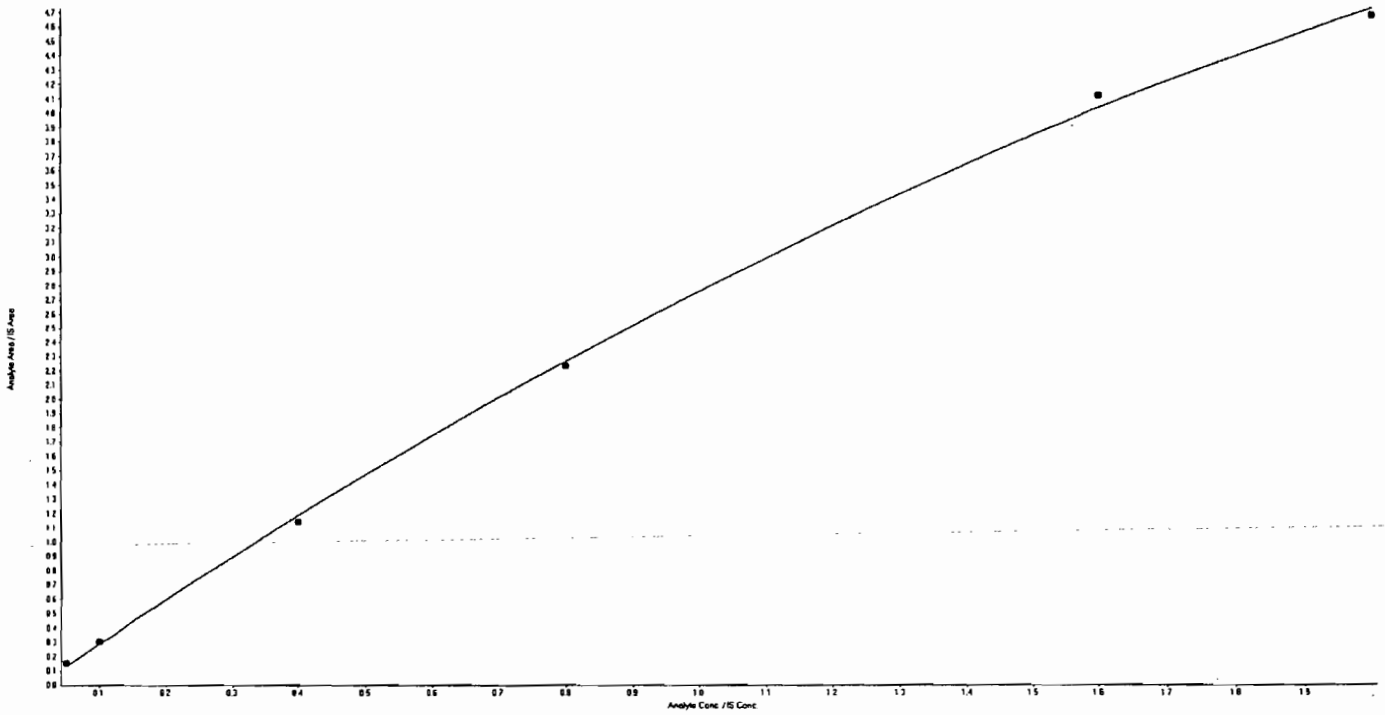
Analyte Name: 13-Dinitrobenzene

Regression Equation: y = -0.41 x^2 + 3.2 x + -0.0265 (r = 0.9996)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.40	113.6
50	53.05	106.1
200	192.08	96.0
400	393.60	98.4
800	822.94	102.9
1000	984.77	98.5



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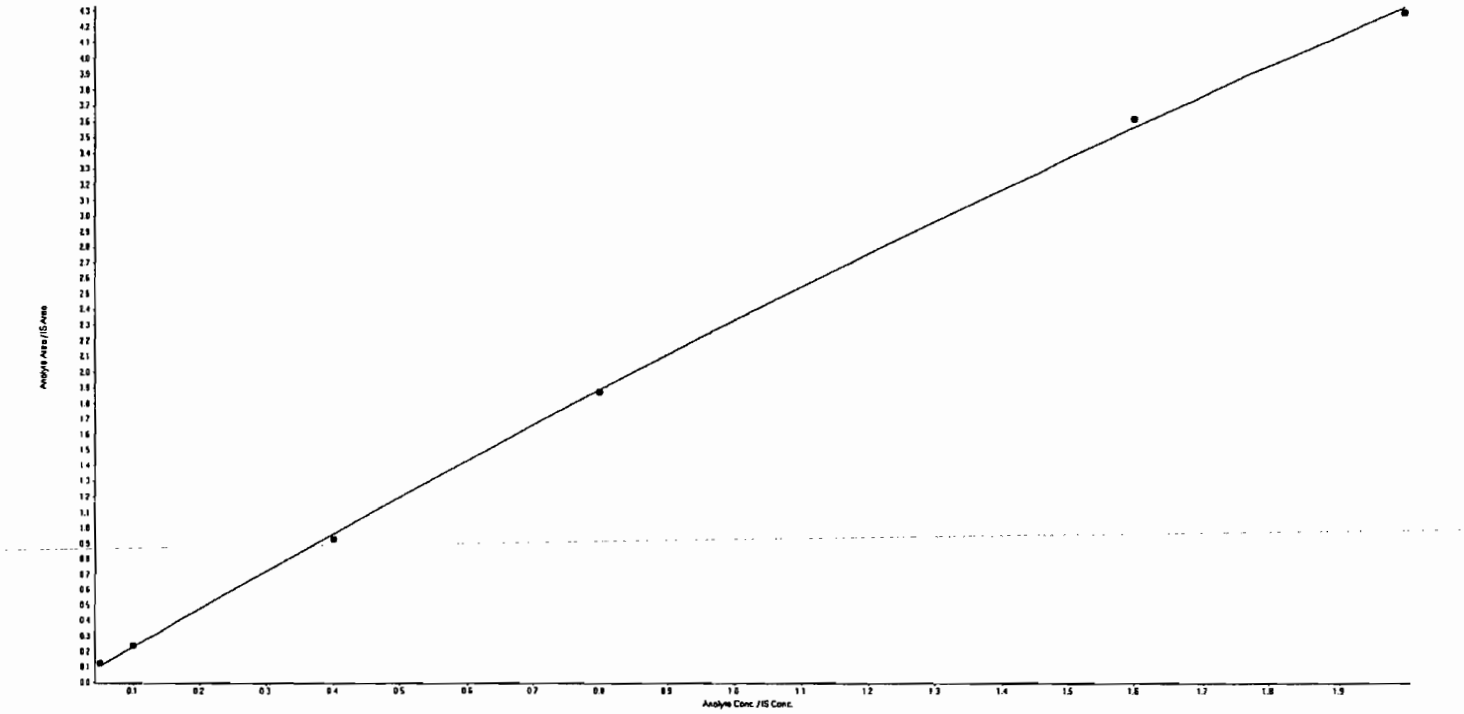
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Analyte Name: Tetryl

Regression Equation: y = -0.176 x^2 + 2.53 x + -0.0195 (r = 0.9998)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.71	114.8
50	51.78	103.6
200	192.93	96.5
400	396.12	99.0
800	813.89	101.7
1000	991.58	99.2



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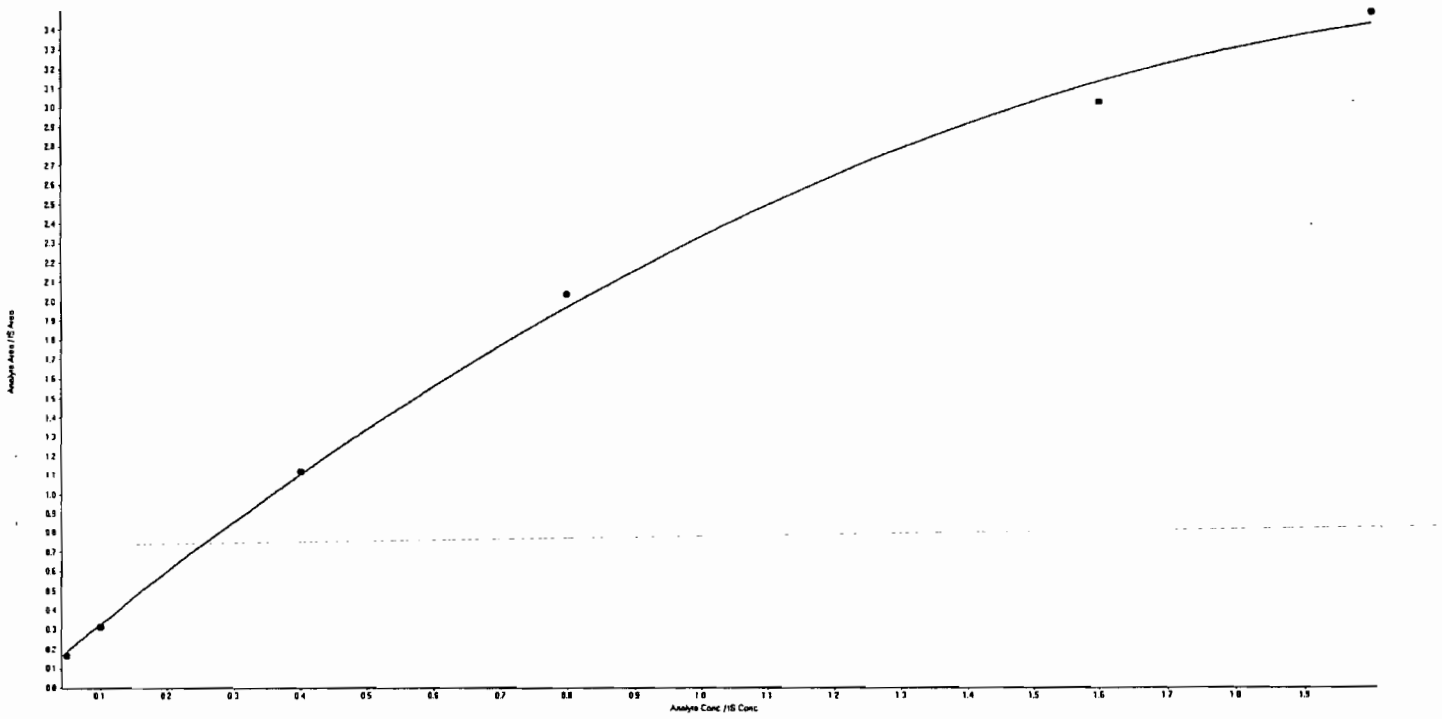
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation: y = -0.594 x^2 + 2.88 x + 0.0447 (r = 0.9990)

Expected Concentration	Calculated Concentration	% Accuracy
25	21.79	87.1
50	47.74	95.5
200	202.87	101.4
400	417.45	104.4
800	748.56	93.6
1000	1067.10	106.7



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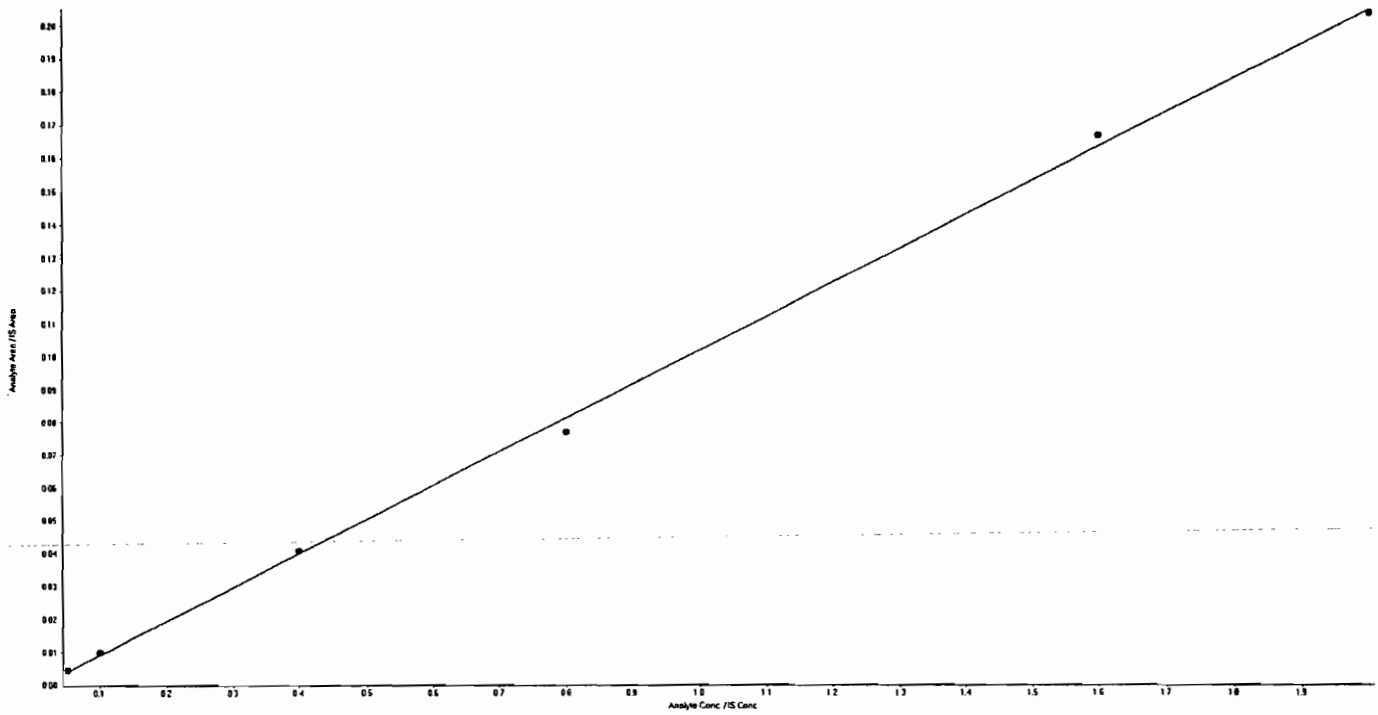
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Analyte Name: Nitrobenzene

Regression Equation: y = 0.103 x + -0.00109 (r = 0.9995)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.17	112.7
50	53.97	107.9
200	203.53	101.8
400	378.57	94.6
800	815.80	102.0
1000	994.95	99.5



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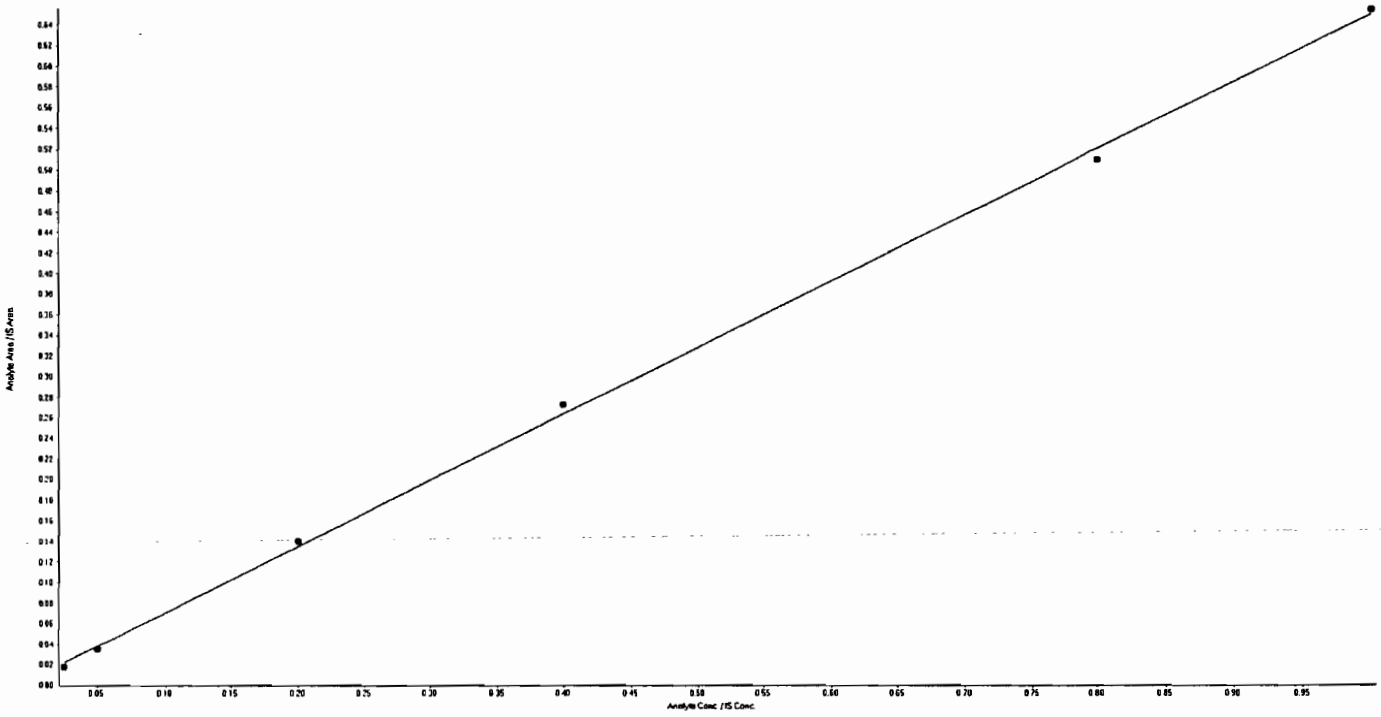
Analyte Name: 34-dinitrotoluene

Regression Equation: y = 0.645 x + 0.00614 (r = 0.9996)

Expected Concentration	Calculated Concentration	% Accuracy
12.5	8.95	71.6
25	22.89	91.6
100	103.77	103.8
200	206.98	103.5
400	391.32	97.8
500	503.60	100.7



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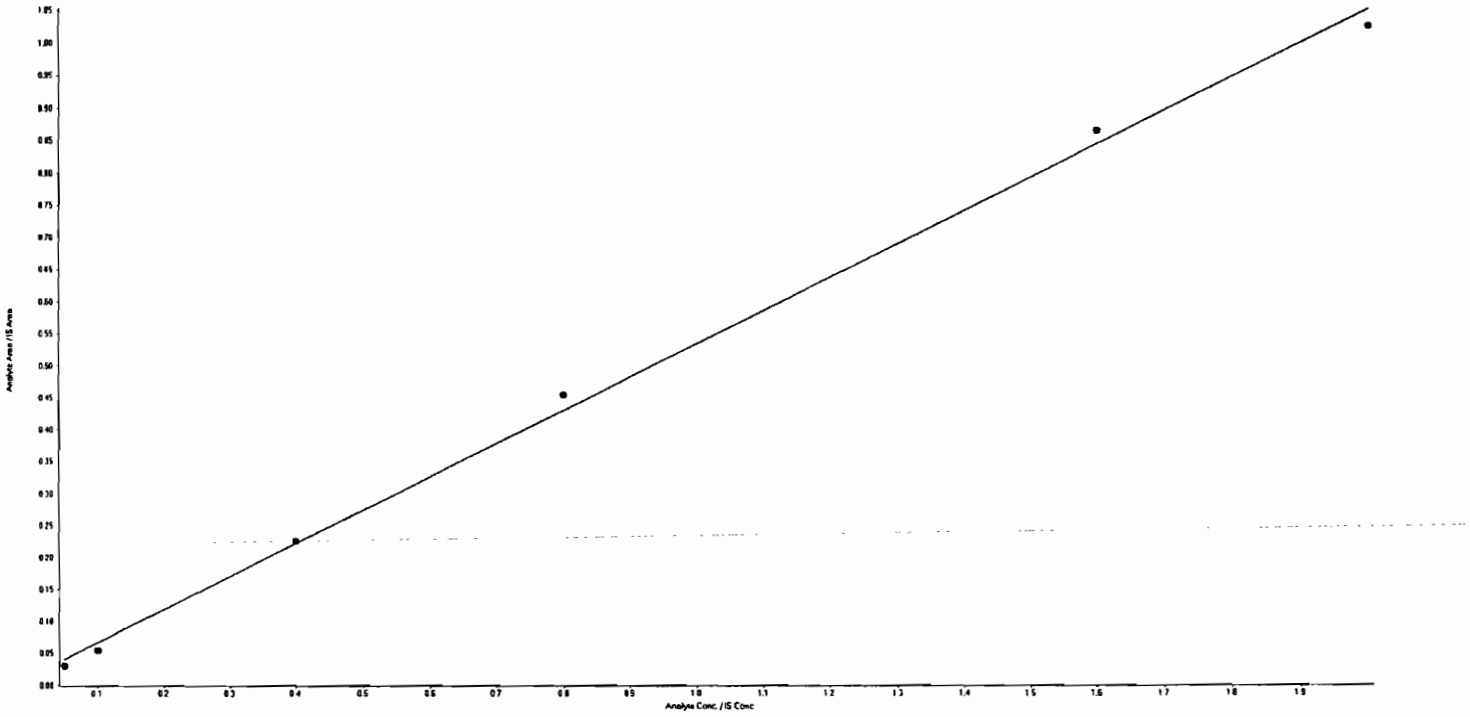
Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Analyte Name: 26-dinitrotoluene

Regression Equation: y = 0.519 x + 0.0148 (r = 0.9989)

Expected Concentration	Calculated Concentration	% Accuracy
25	15.37	61.5
50	38.13	76.3
200	203.13	101.6
400	423.68	105.9
800	819.75	102.5
1000	974.94	97.5



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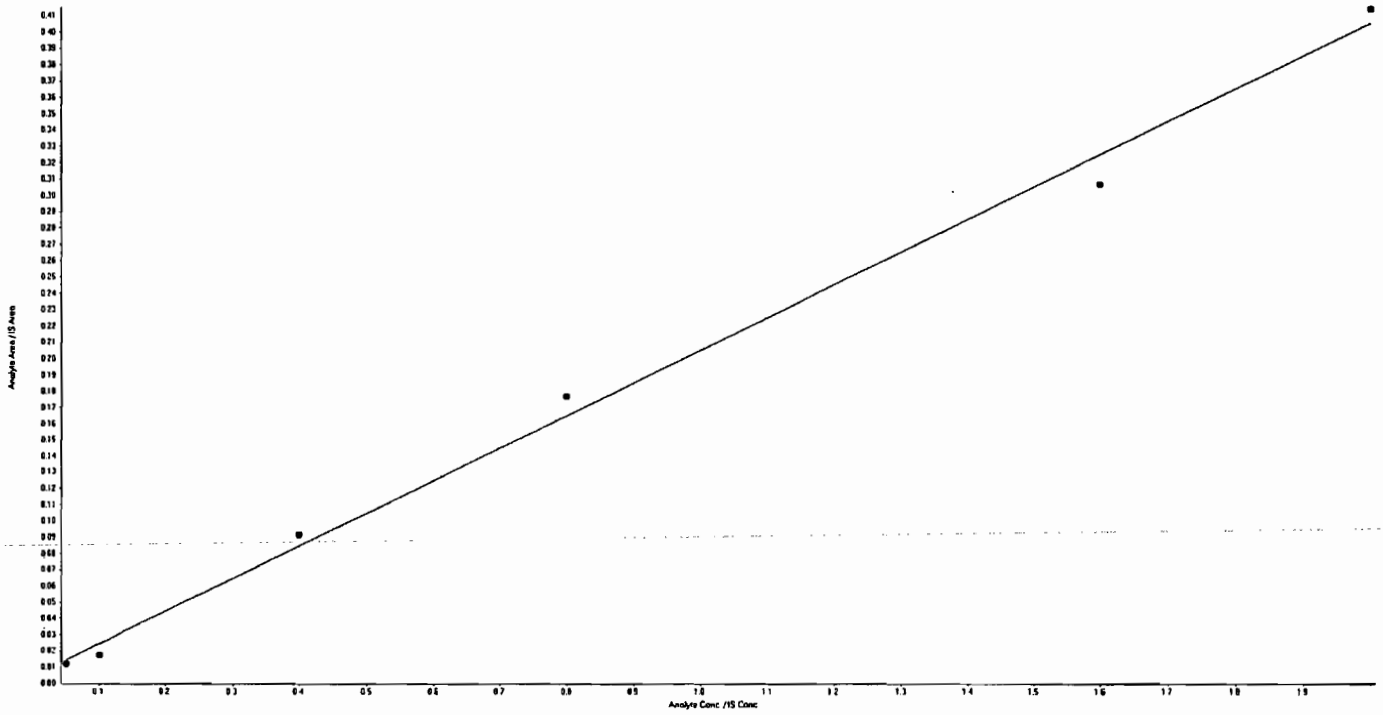
Analyte Name: 24-dinitrotoluene

Regression Equation: y = 0.201 x + 0.00445 (r = 0.9975)

Expected Concentration	Calculated Concentration	% Accuracy
25	18.76	75.0
50	32.56	65.1
200	216.87	108.4
400	430.36	107.6
800	754.67	94.3
1000	1021.77	102.2



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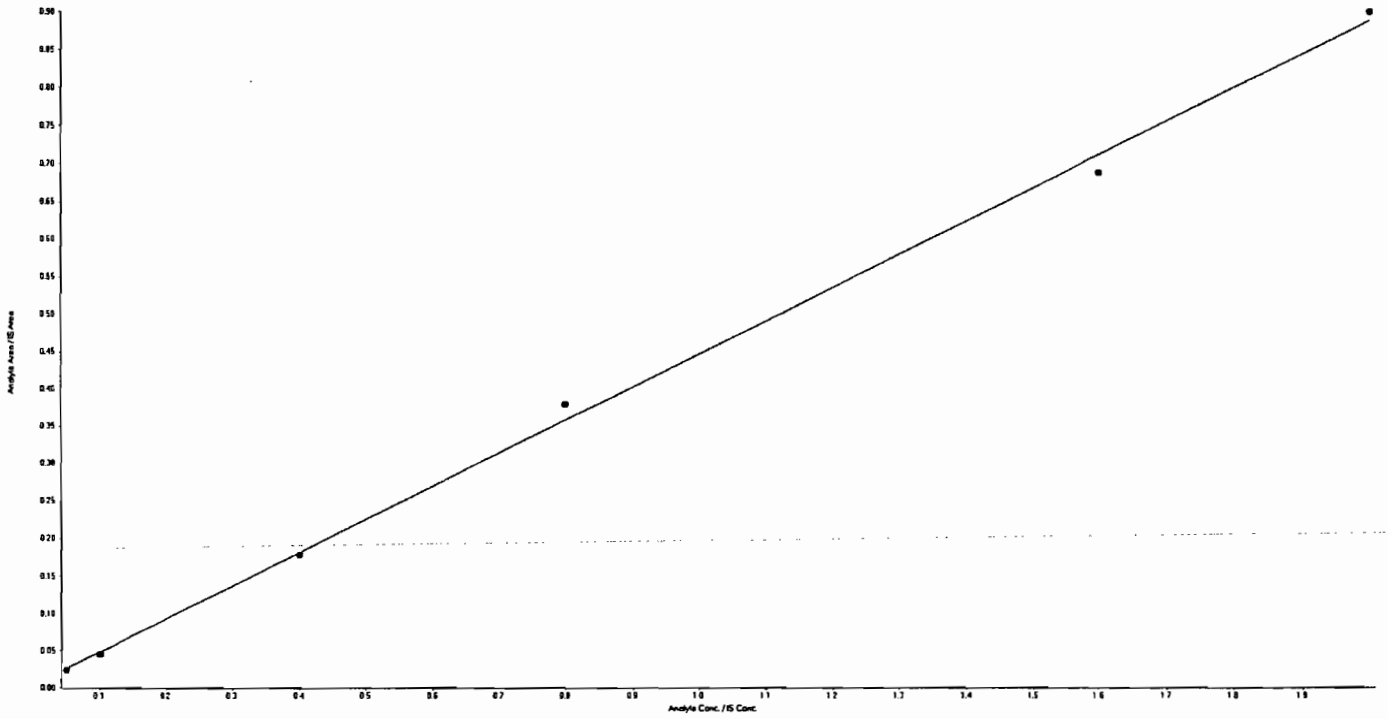
Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation: y = 0.442 x + 0.00386 (r = 0.9991)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.27	89.1
50	46.50	93.0
200	196.33	98.2
400	423.88	106.0
800	772.93	96.6
1000	1013.08	101.3



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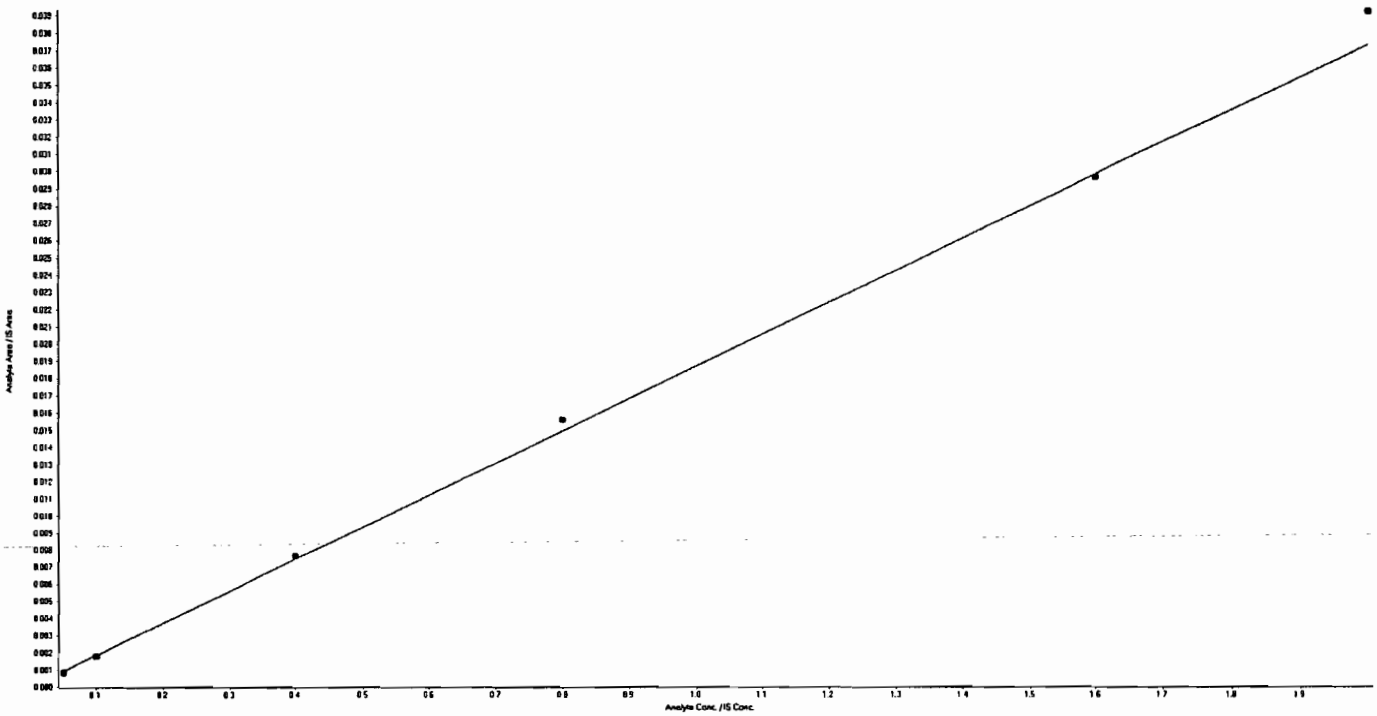
Analyte Name: 2-Amino-46-dinitrotoluene

Regression Equation: y = 0.0187 x (std. dev. = 0.000985)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.74	91.0
50	48.81	97.6
200	204.97	102.5
400	417.42	104.4
800	795.55	99.4
1000	1051.25	105.1



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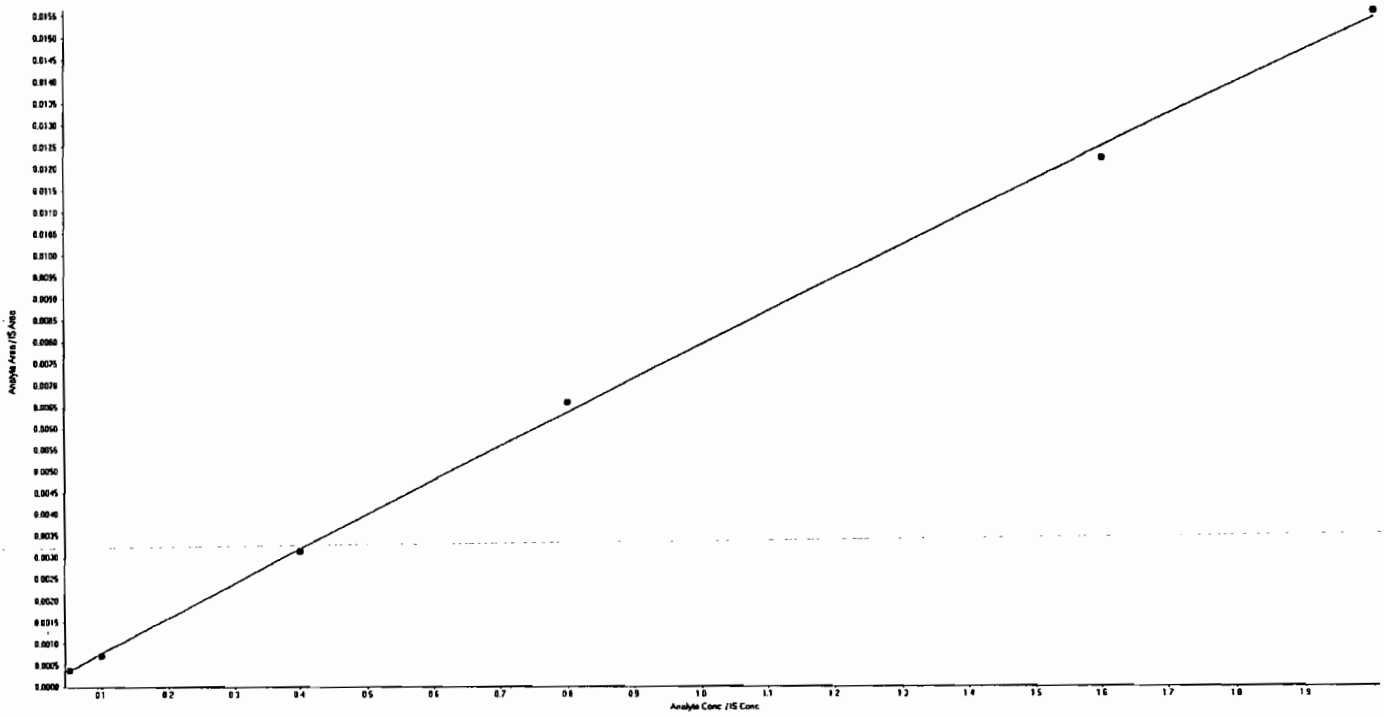
Analyte Name: 2-Nitrotoluene

Regression Equation: y = -0.000221 x^2 + 0.0082 x + -4.27e-005 (r = 0.9996)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.12	104.5
50	46.36	92.7
200	196.64	98.3
400	414.45	103.6
800	781.93	97.7
1000	1009.54	101.0



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GEL SOP GL-OA-E-056, Method 8321A-Modified

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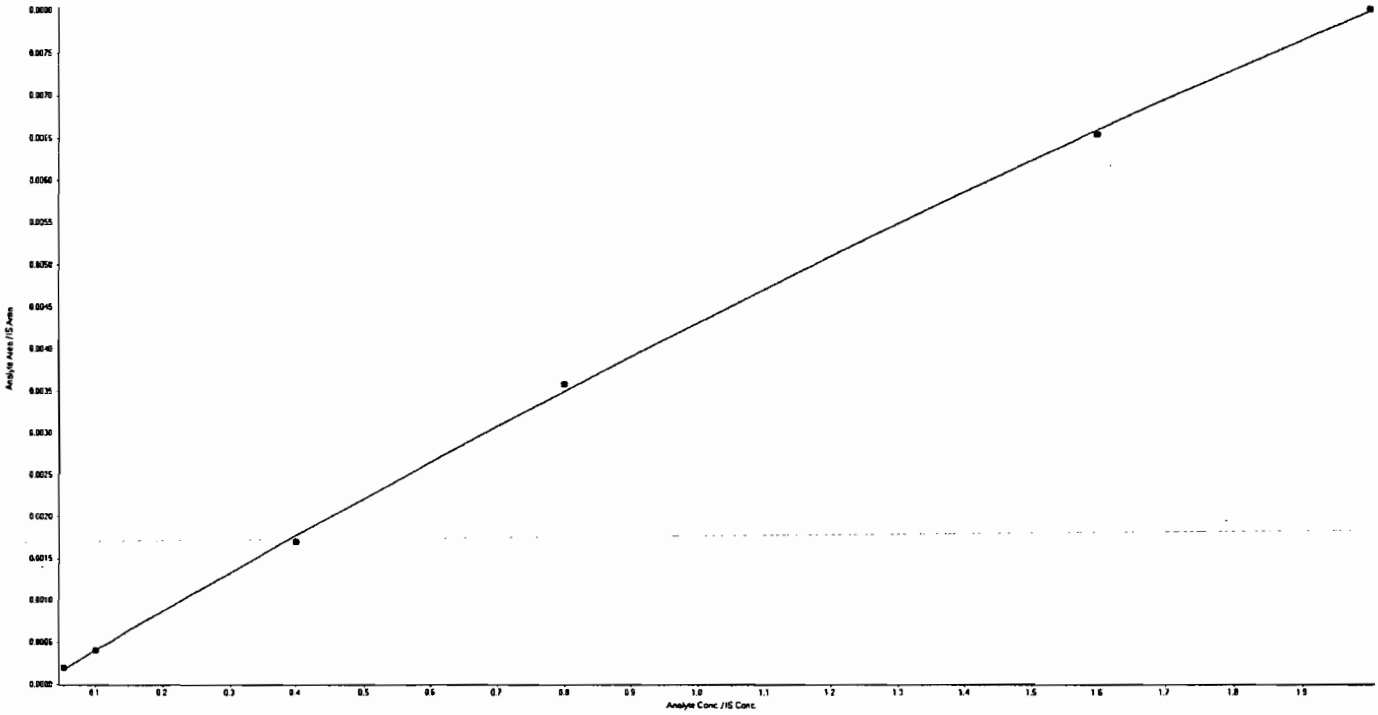
LCMSMS#3

Analyte Name: 4-Nitrotoluene

Regression Equation: y = -0.000341 x^2 + 0.00471 x + -5.61e-005 (r = 0.9998)

Expected Concentration	Calculated Concentration	% Accuracy
25	27.70	110.8
50	49.39	98.8
200	191.73	95.9
400	410.15	102.5
800	792.37	99.0
1000	1003.71	100.4



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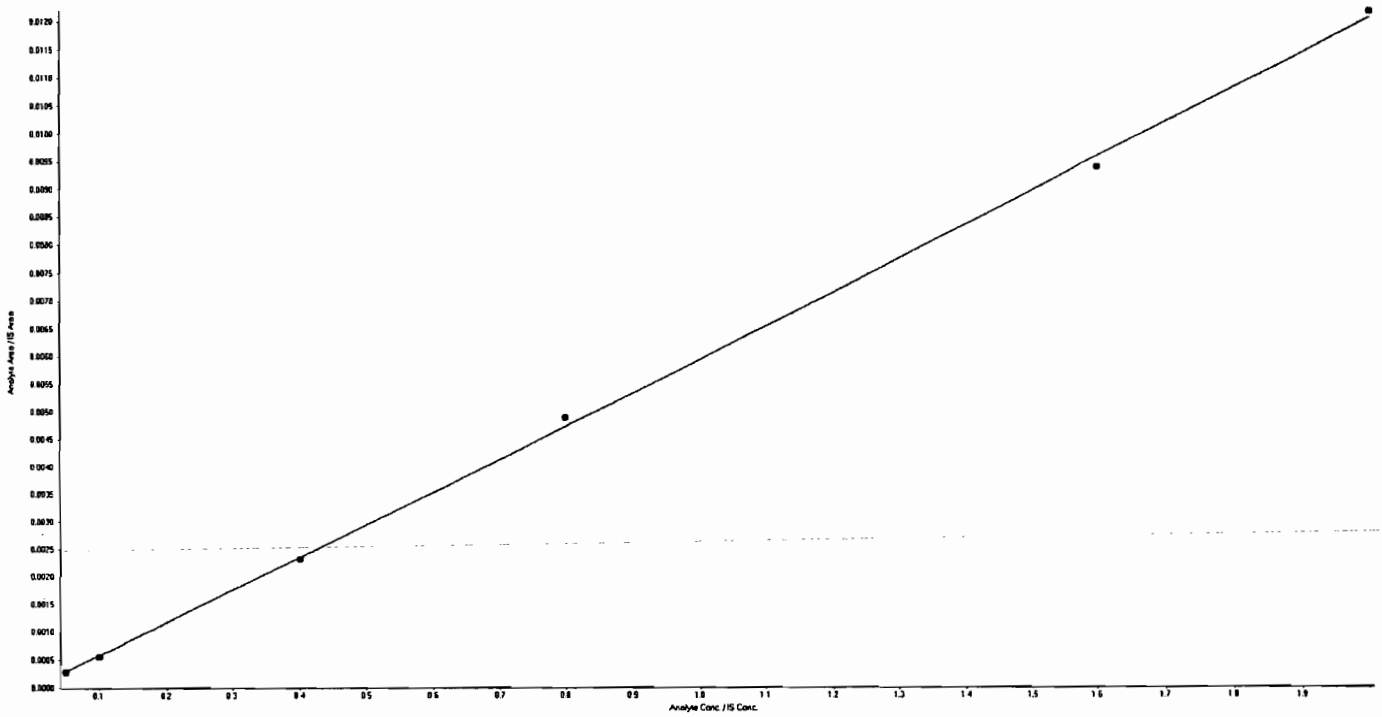
Analyte Name: 3-Nitrotoluene

Regression Equation: y = 0.000115 x^2 + 0.00581 x + 6.71e-006 (r = 0.9997)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.38	97.5
50	47.62	95.2
200	197.68	98.8
400	413.33	103.3
800	783.56	97.9
1000	1008.41	100.8



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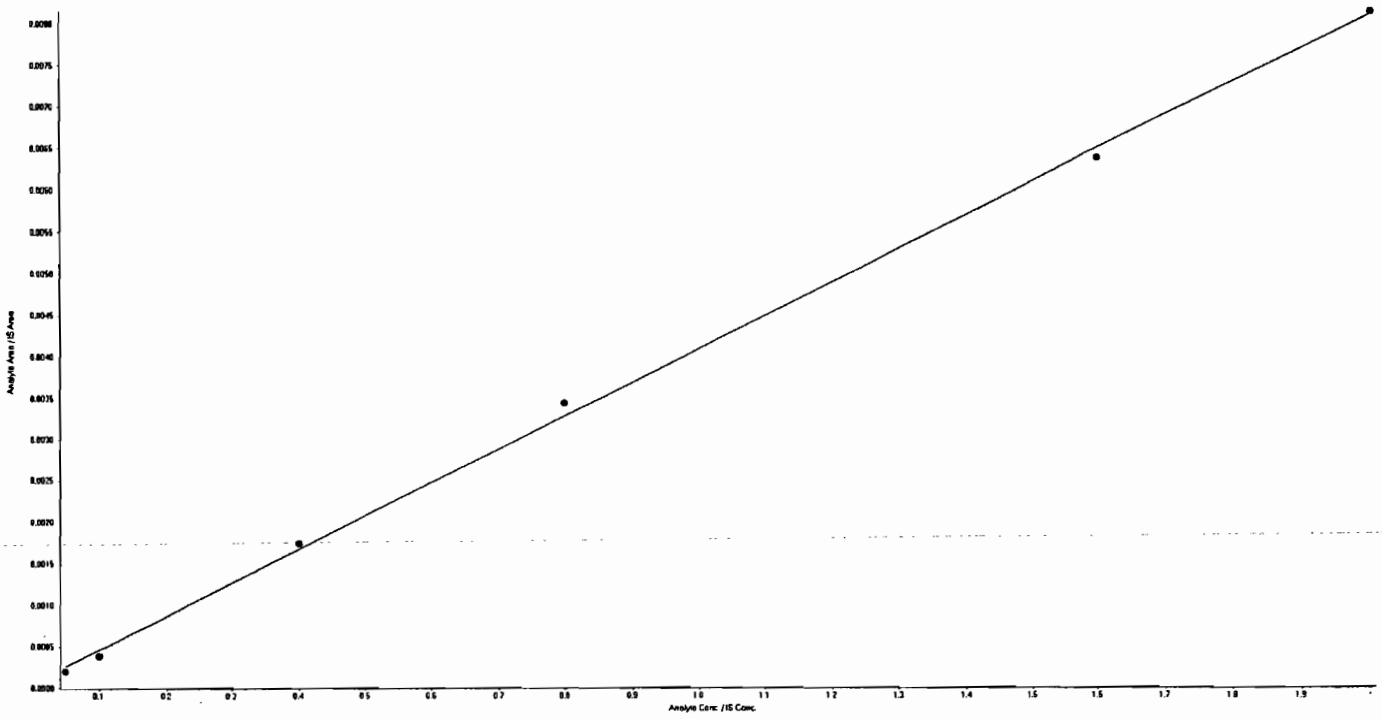
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Analyte Name: PETN

Regression Equation: y = 0.00403 x + 6.18e-005 (r = 0.9995)

Expected Concentration	Calculated Concentration	% Accuracy
25	17.73	70.9
50	41.26	82.5
200	208.61	104.3
400	419.29	104.8
800	784.66	98.1
1000	1003.45	100.3



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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0415010.wiff

Analysis Date: 15-APR-10 14:01

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	577	96	
2,4,6-Trinitrotoluene	600	546	91	
2,4-Dinitrotoluene	600	585	98	
2,6-Dinitrotoluene	600	553	92	
2-Amino-4,6-dinitrotoluene	600	500	83	
3,4-Dinitrotoluene	300	294	98	
4-Amino-2,6-dinitrotoluene	600	575	96	
HMX	600	488	81	
Nitrobenzene	600	623	104	
PETN	600	536	89	
RDX	600	589	98	
Tetryl	600	585	98	
m-Dinitrobenzene	600	591	99	
m-Nitrotoluene	600	495	83	
o-Nitrotoluene	600	526	88	
p-Nitrotoluene	600	570	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

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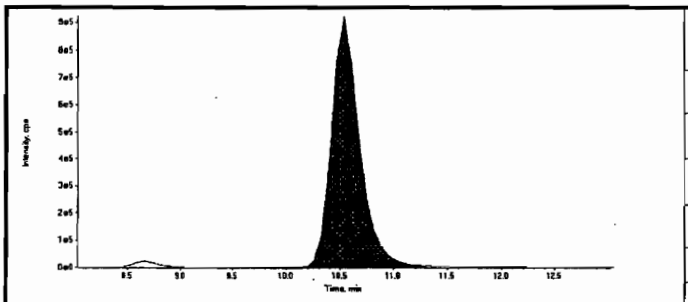
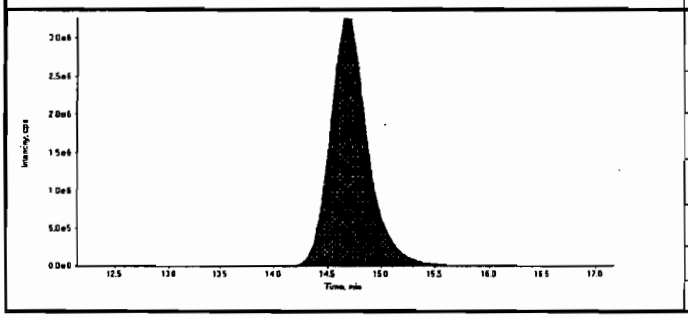
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

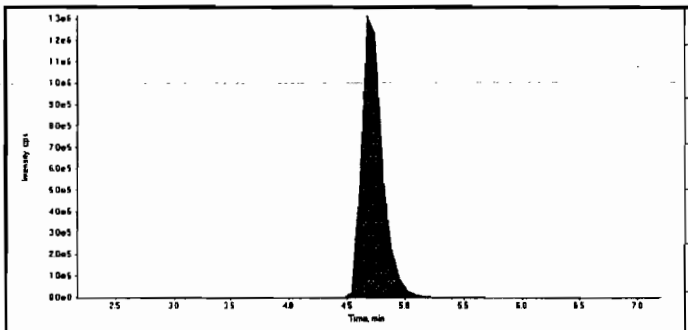
Data File	EXP0415010.wiff	**Acquisition Date**	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



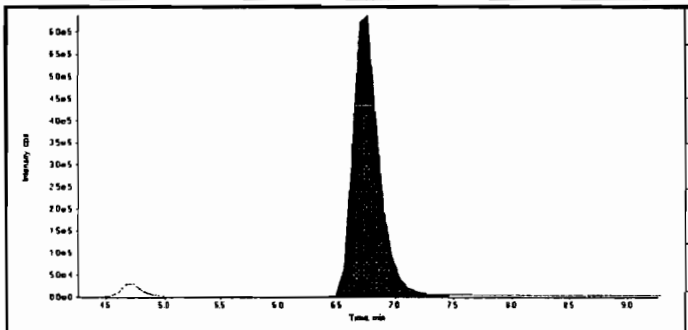
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	16900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	80800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.69e+007
Manual Modification	No
Amount:	488. (ng/mL)
% Accuracy:	81.40



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.03e+007
Manual Modification	No
Amount:	589. (ng/mL)
% Accuracy:	98.20

4/23/10
4/23/10

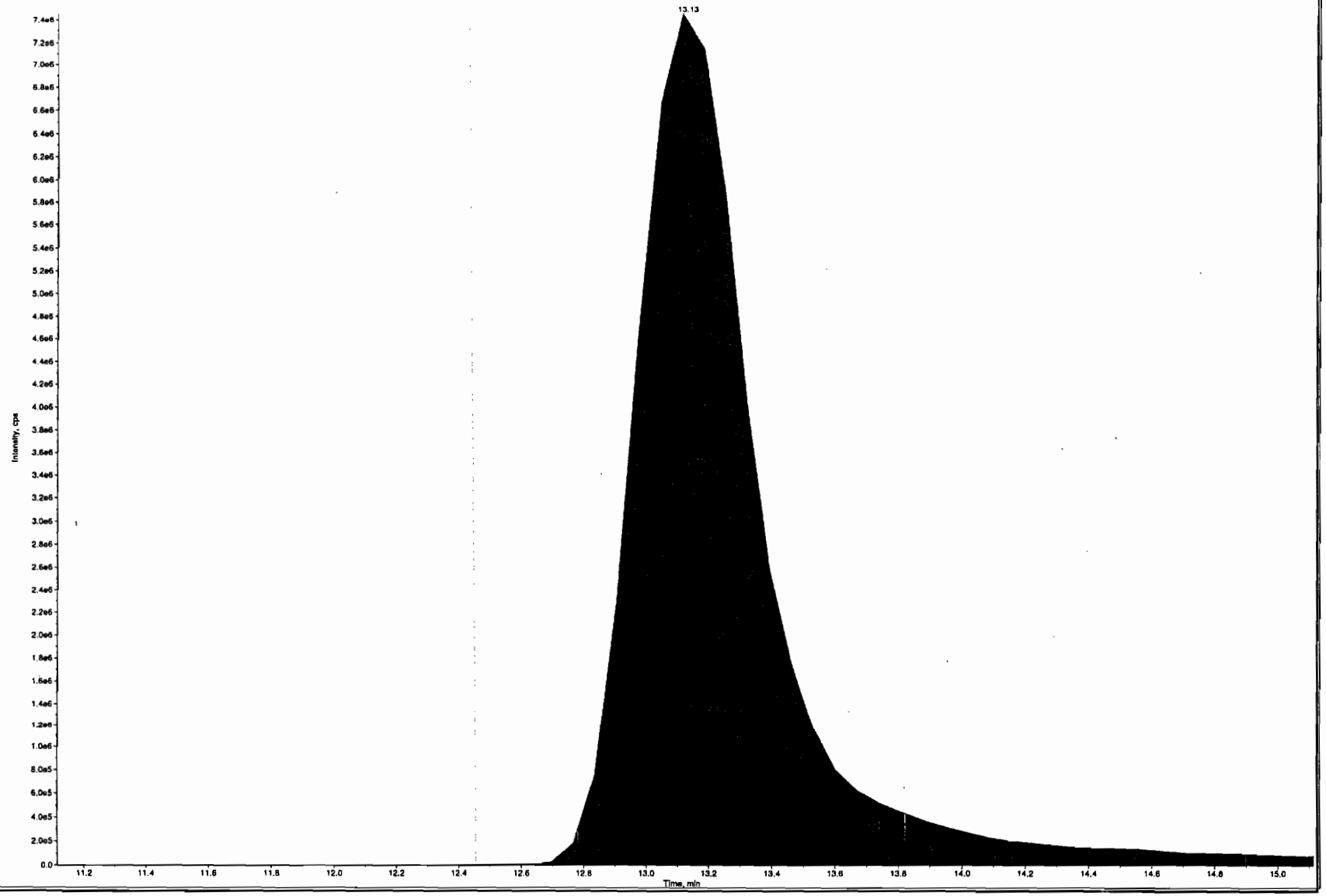
Before Ran 4/23/10

Sample Name: "WXX100415-S6ICV" Sample ID: "[1]LER" File: "EXP0415010.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 600. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 2:01:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.1 min
Area: 2.14e+008 counts
Height: 7.46e+006 cps
Start Time: 12.5 min
End Time: 17.1 min



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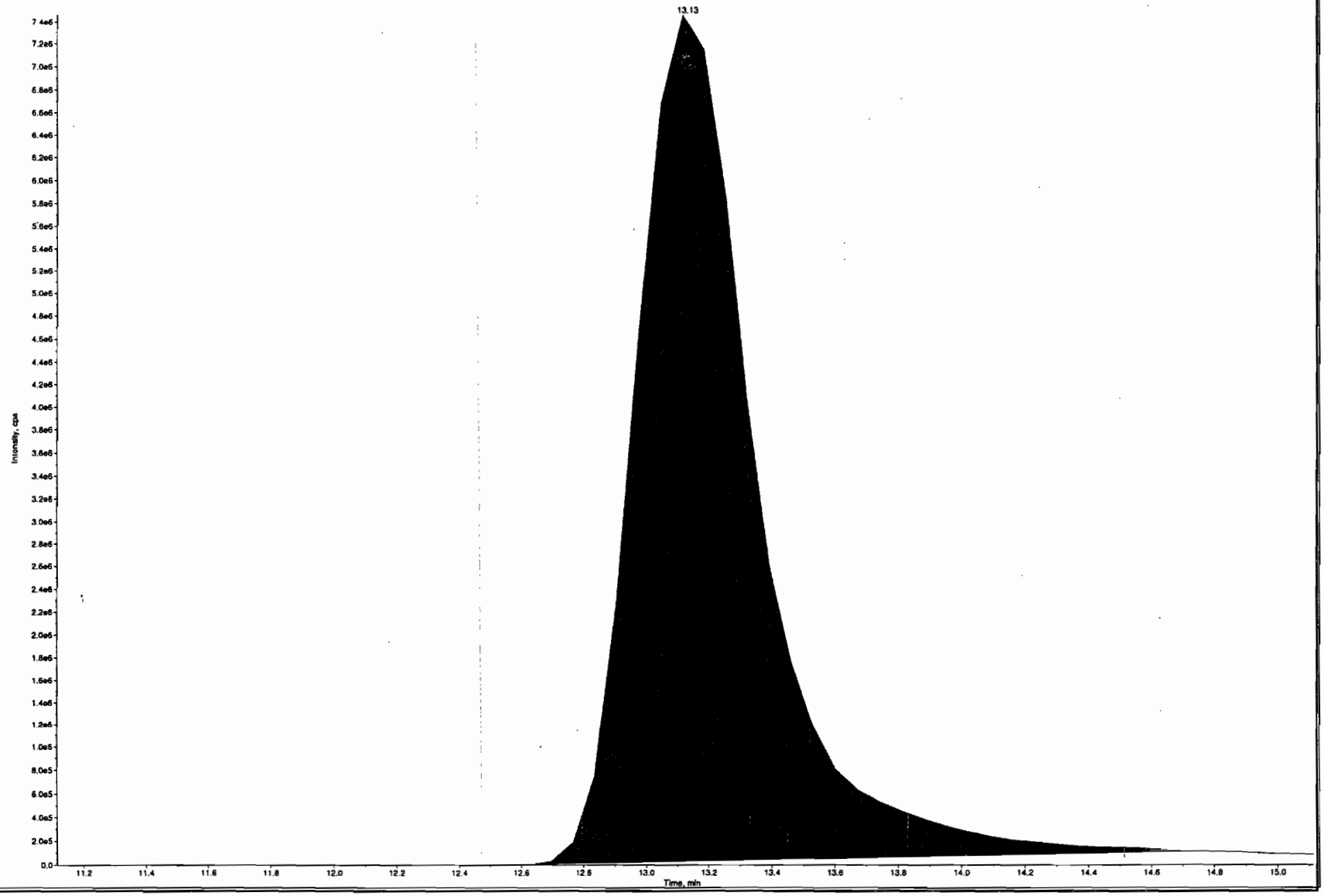
after Scan 4/23/10

Sample Name: "WXX100415-56ICV" Sample ID: "[1]LER" File: "EXP0415010.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 546. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 2:01:01 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 13.1 min
Area: 2.01e+008 counts
Height: 7.46e+006 cps
Start Time: 12.6 min
End Time: 14.7 min



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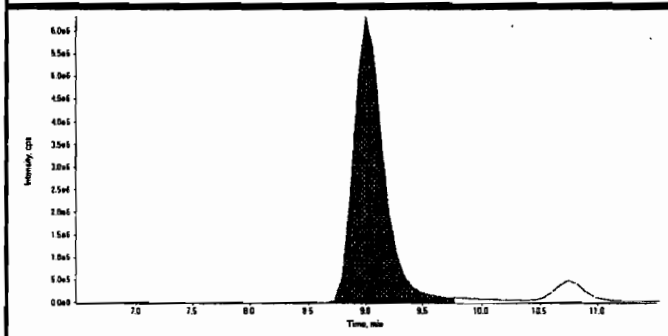
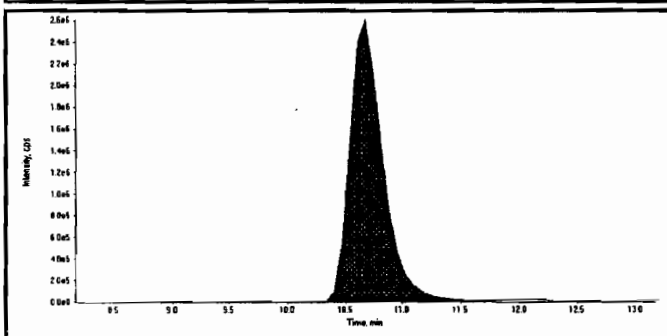
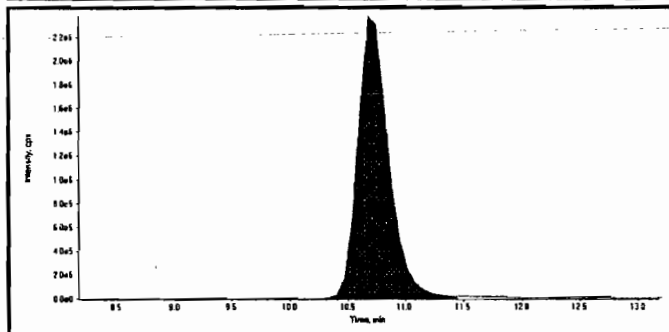
Data File	EXP0415010.wiff	**Acquisition Date**	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



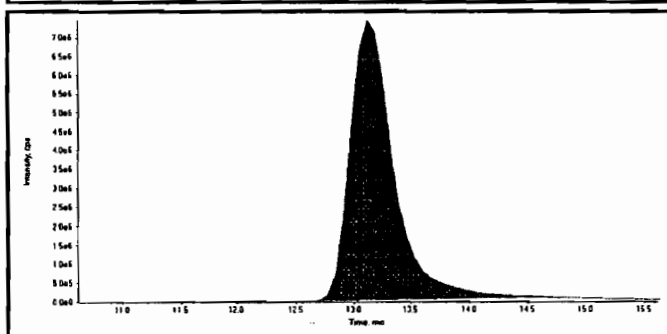
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.18e+008
Manual Modification	No
Amount:	577. (ng/mL)
% Accuracy:	96.20



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	5.39e+007
Manual Modification	No
Amount:	591. (ng/mL)
% Accuracy:	98.60



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.57e+007
Manual Modification	No
Amount:	585. (ng/mL)
% Accuracy:	97.50



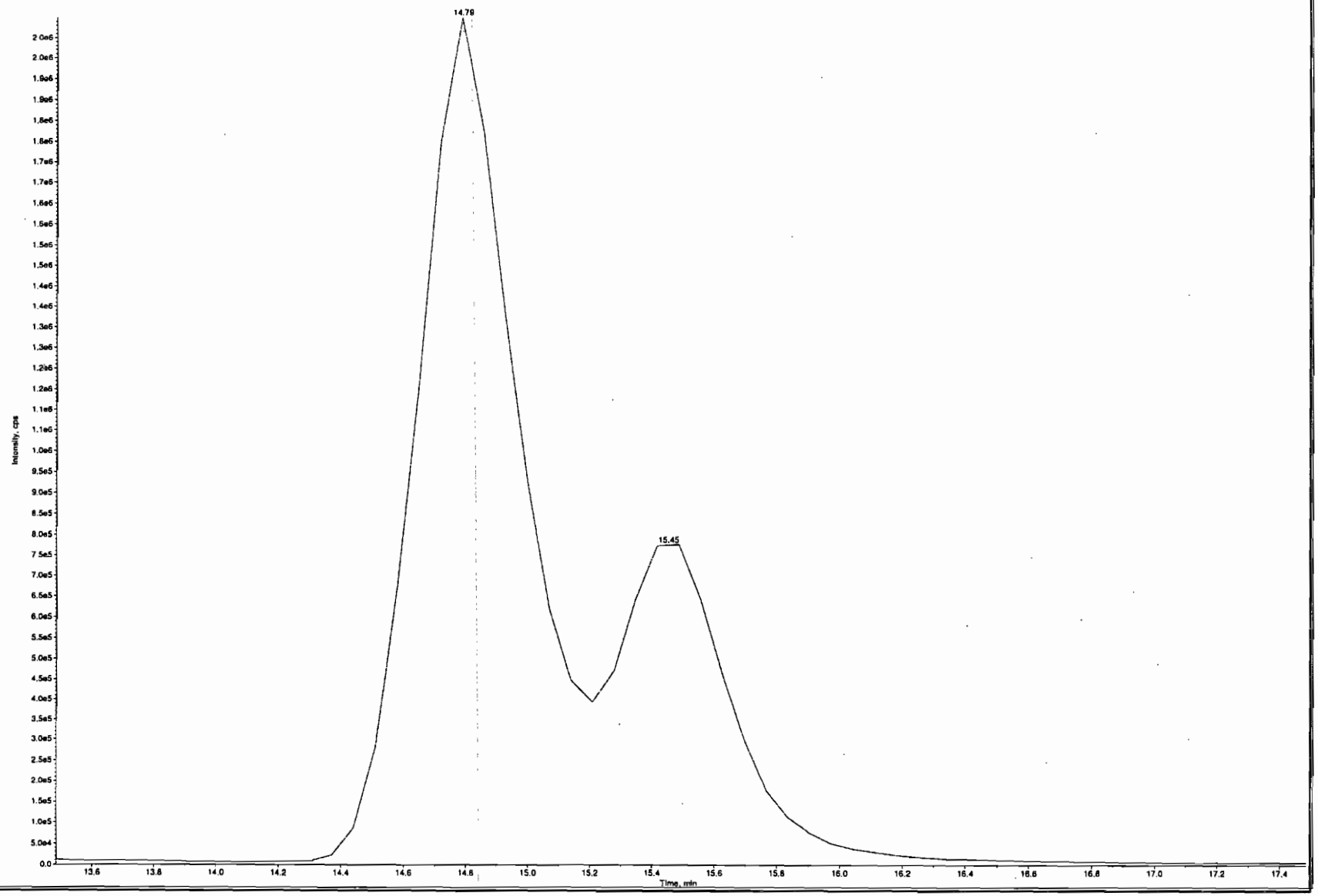
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	2.01e+008
Manual Modification	Yes
Amount:	546. (ng/mL)
% Accuracy:	91.00

Before Clar 4/23/10

Sample Name: "WXX100415-56ICV" Sample ID: "[1]LER" File: "EXP0415010.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 2:01:01 PM

Modified: No



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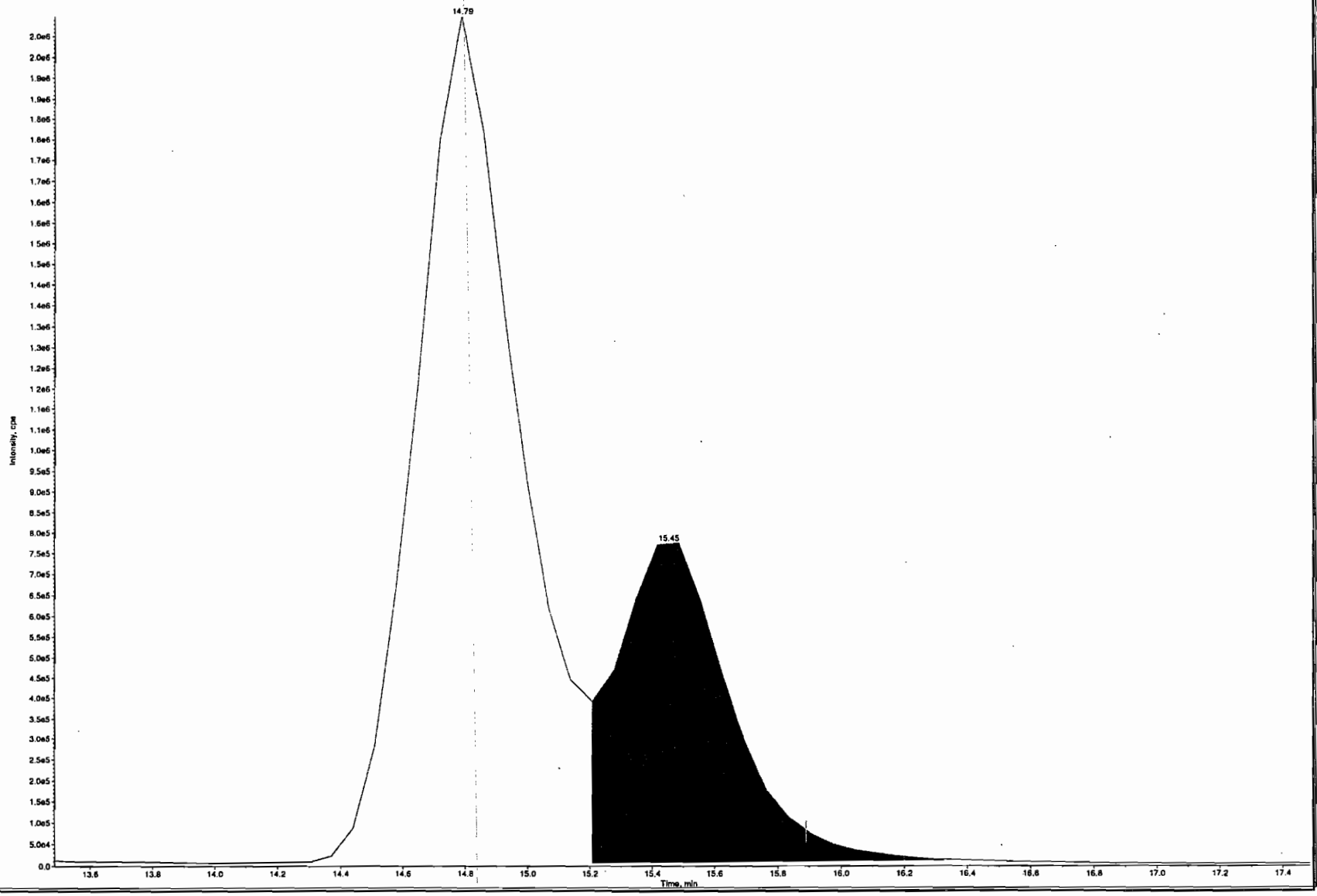
after Scan 4/23/10

Sample Name: "WXX100415-56ICV" Sample ID: "[1]LER" File: "EXP0415010.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	585.	ng/mL
Acq. Date:	4/15/2010	
Acq. Time:	2:01:01 PM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	15.5	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	15.5	min
Area:	1.94e+007	counts
Height:	7.83e+005	cps
Start Time:	15.2	min
End Time:	16.3	min



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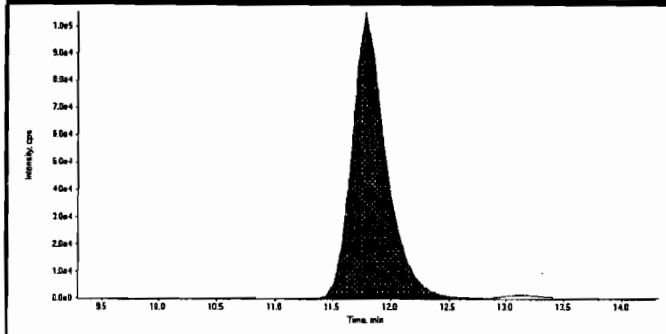
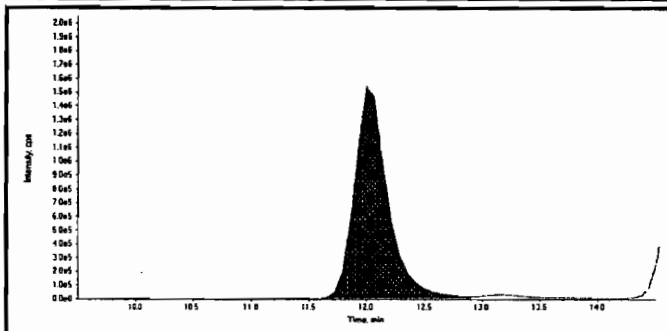
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

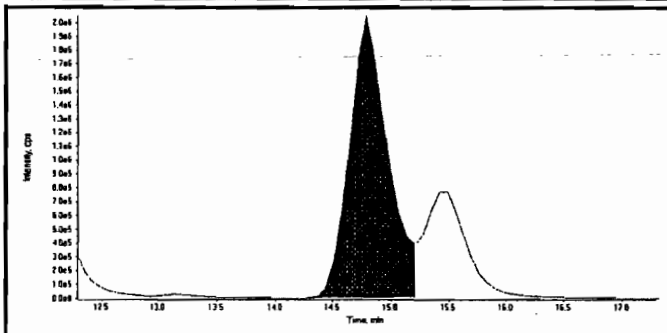
Data File	EXP0415010.wiff	**Acquisition Date**	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



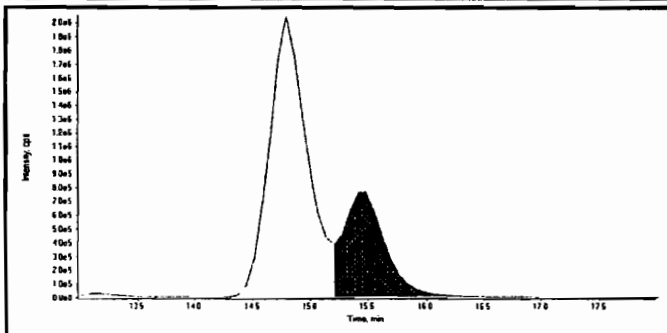
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	2.16e+006
Manual Modification	No
Amount:	623. (ng/mL)
% Accuracy:	104.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	3.11e+007
Manual Modification	No
Amount:	294. (ng/mL)
% Accuracy:	98.00



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	4.76e+007
Manual Modification	No
Amount:	553. (ng/mL)
% Accuracy:	92.10



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.94e+007
Manual Modification	Yes
Amount:	585. (ng/mL)
% Accuracy:	97.50

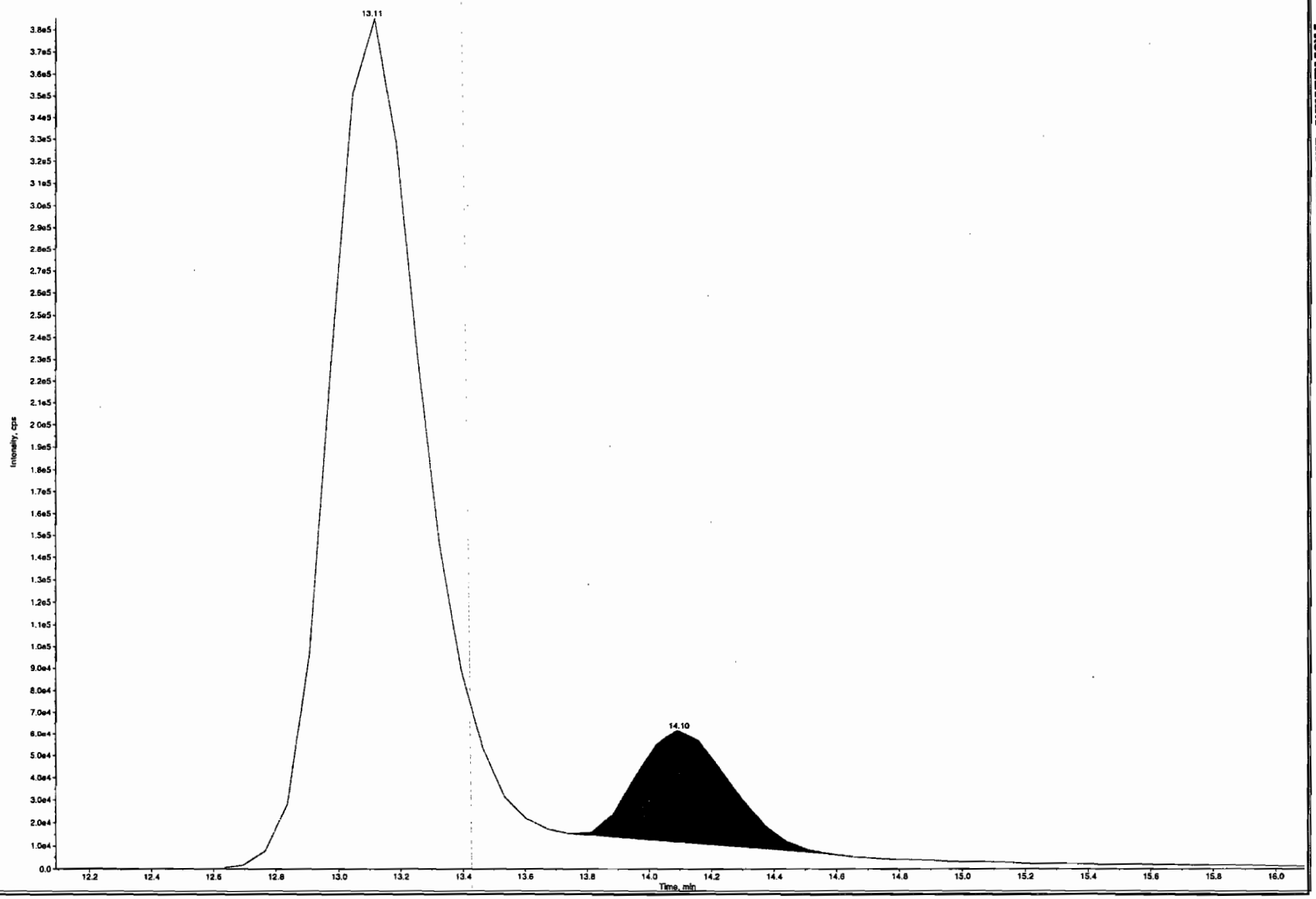
Before Lar 4/23/10

Sample Name: "WXX100415-56ICV" Sample ID: "[1]LER" File: "EXP0415010.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 140. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 2:01:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.1 min
Area: 1.03e+006 counts
Height: 5.00e+004 cps
Start Time: 13.7 min
End Time: 14.6 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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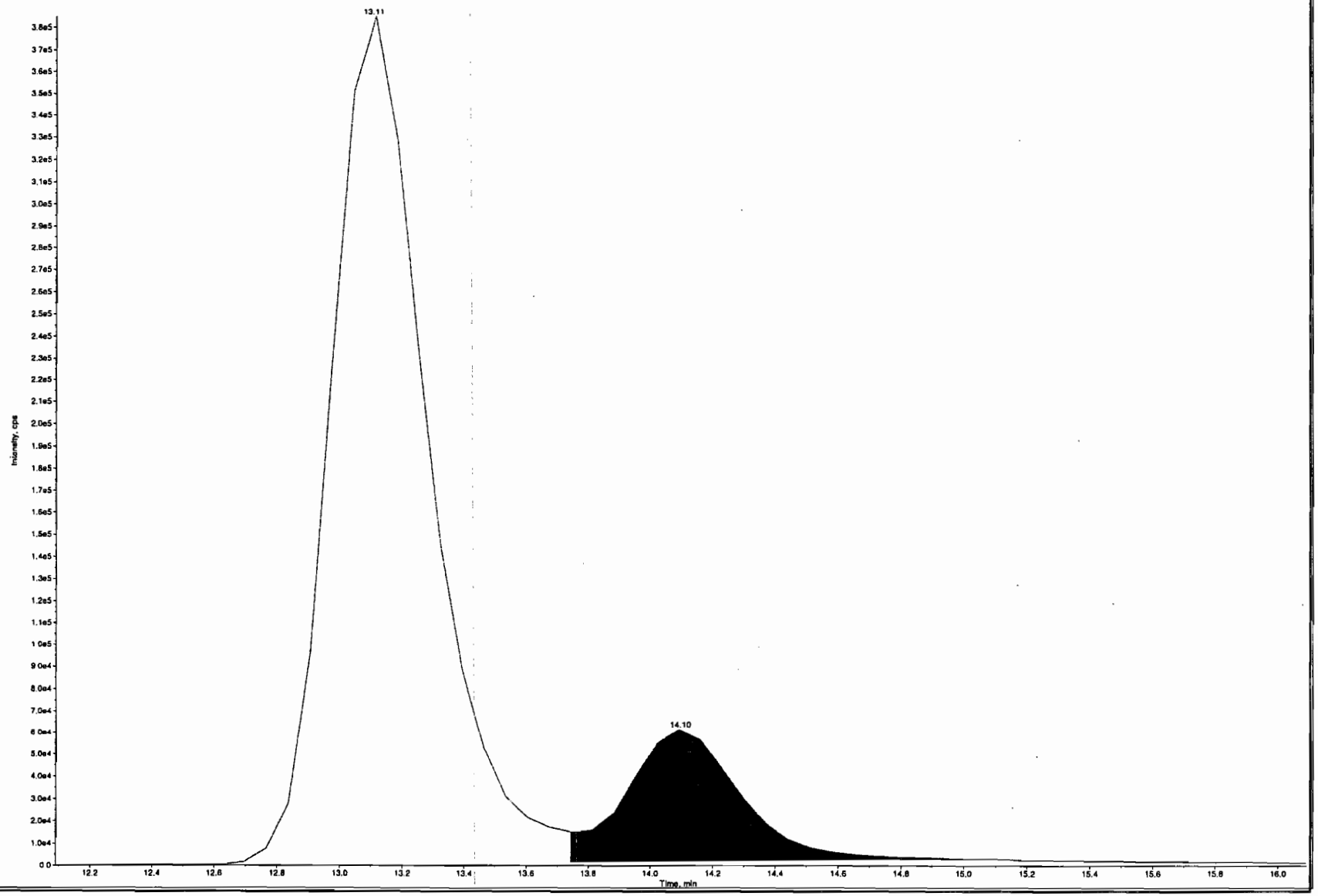
after Scan 4/23/10

Sample Name: "WXX100415-56ICV" Sample ID: "[1]LER" File: "EXP0415010 wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 2:01:01 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.1 min
Area: 1.51e+006 counts
Height: 5.96e+004 cps
Start Time: 13.7 min
End Time: 15.0 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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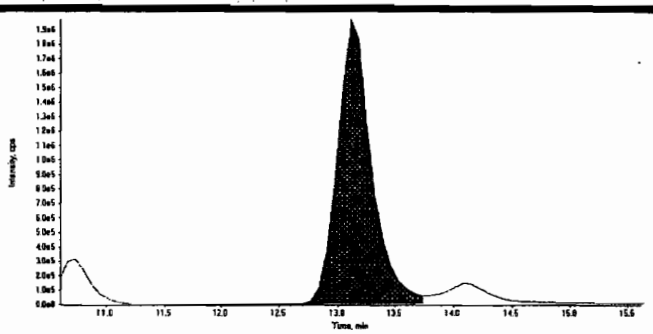
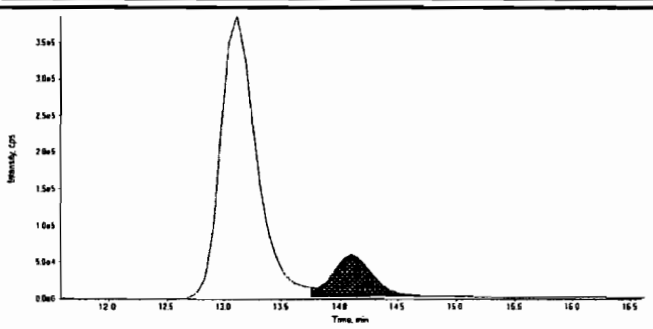
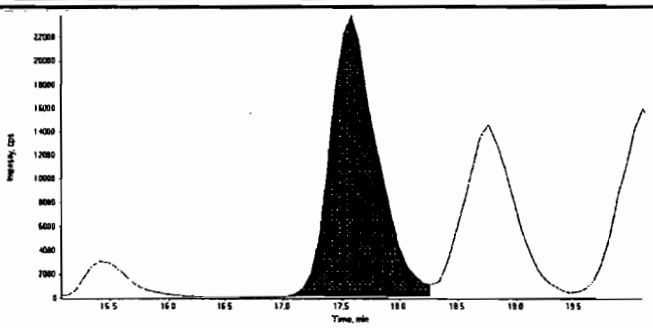
Data File	EXP0415010.wiff	**Acquisition Date**	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



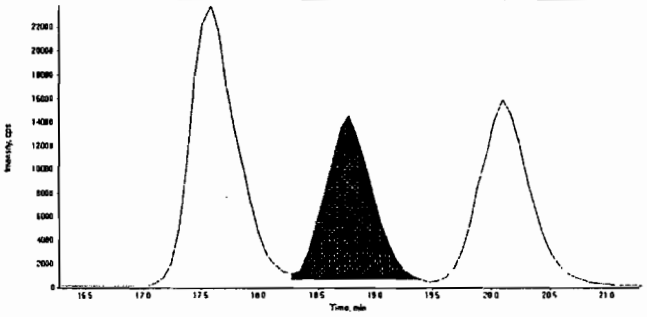
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	4.14e+007
Manual Modification	No
Amount:	575. (ng/mL)
% Accuracy:	95.80



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.1
Area Counts:	1.51e+006
Manual Modification	Yes
Amount:	500. (ng/mL)
% Accuracy:	83.30



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	6.74e+005
Manual Modification	No
Amount:	526. (ng/mL)
% Accuracy:	87.70



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	3.94e+005
Manual Modification	No
Amount:	570. (ng/mL)
% Accuracy:	95.00

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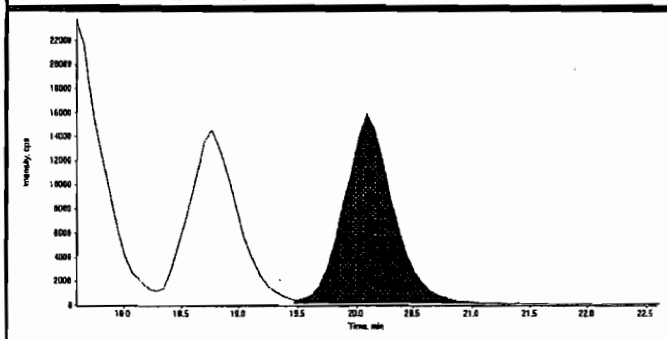
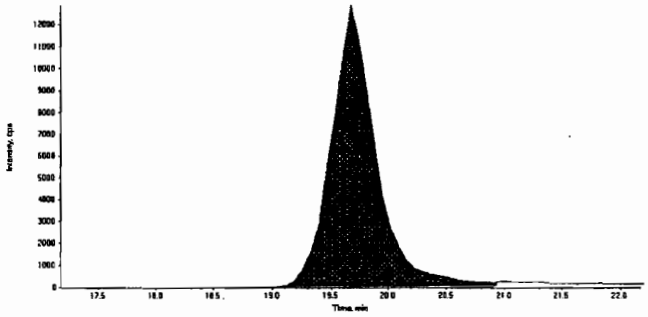
Data File	EXP0415010.wiff	**Acquisition Date**	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	4.75e+005
Manual Modification	No
Amount:	495. (ng/mL)
% Accuracy:	82.50



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	3.54e+005
Manual Modification	No
Amount:	536. (ng/mL)
% Accuracy:	89.30

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/15/10
Time of Injection 1401
Standard Number WXX100415-56ICV
Data File EXP0415010a

HMX	81.4
RDX	98.2
135-Trinitrobenzene	96.2
13-Dinitrobenzene	98.6
Tetryl	97.5
246-Trinitrotoluene	91.0
Nitrobenzene	104.0
34-dinitrotoluene	98.0
26-dinitrotoluene	92.1
24-dinitrotoluene	97.5
4-Amino-26-dinitrotoluene	95.8
2-Amino-46-dinitrotoluene	83.3
2-Nitrotoluene	87.7
4-Nitrotoluene	95.0
3-Nitrotoluene	82.5
PETN	89.3
TOTAL	1488.1
AVERAGE	93.0

HMM 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Dan 4/22/10

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2198

Lab Code: GEL

Run Date: 09-APR-10,15-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS04090003.wifl	EXS04090004.wifl	EXS04090005.wifl	EXS04090006.wifl	EXS04090007.wifl	EXS04090008.wifl	EXS04090009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	112000	220000	544000	1100000	1620000	2230000	4010000	-24500	2380	-.179	.9997	
2,6-Diamino-4-nitrotoluene	147000	294000	719000	1410000	1970000	2660000	4780000	11600	2860	-.237	.9999	
3,4-Dinitrotoluene	210000	426000	1050000	2120000	3190000	4160000	7740000	-52900	9640	-1.85	.9984	
3,5-Dinitroaniline	359000	708000	1780000	3300000	5260000	6700000	11100000	-93100	7830	-1.11	.9995	
TATB	38200	78800	218000	443000	728000	975000	1920000	-24000	1000	-.014	.9997	
tris(o-cresyl) phosphate	1060000	2050000	5040000	9430000	13600000	17700000	28800000	21900	20600	-3.12	1	

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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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.4e+004			
a1	1e+003			
a2	-0.0139			

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	-9.31e+004			
a1	7.83e+003			
a2	-1.11			

Correlation coefficient 0.9995
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.29e+004			
a1	9.64e+003			
a2	-1.85			

Correlation coefficient 0.9984
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.16e+004			
a1	2.86e+003			
a2	-0.237			

Correlation coefficient 0.9999
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Ran 4/12/10

Hmm 04/12/10

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Fit	Quadratic	Weighting	None	Iterate No
a0	-2.45e+004			
a1	2.38e+003			
a2	-0.179			

Correlation coefficient 0.9997
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	2.19e+004			
a1	2.06e+004			
a2	-3.12			

Correlation coefficient 1.0000
Use Area

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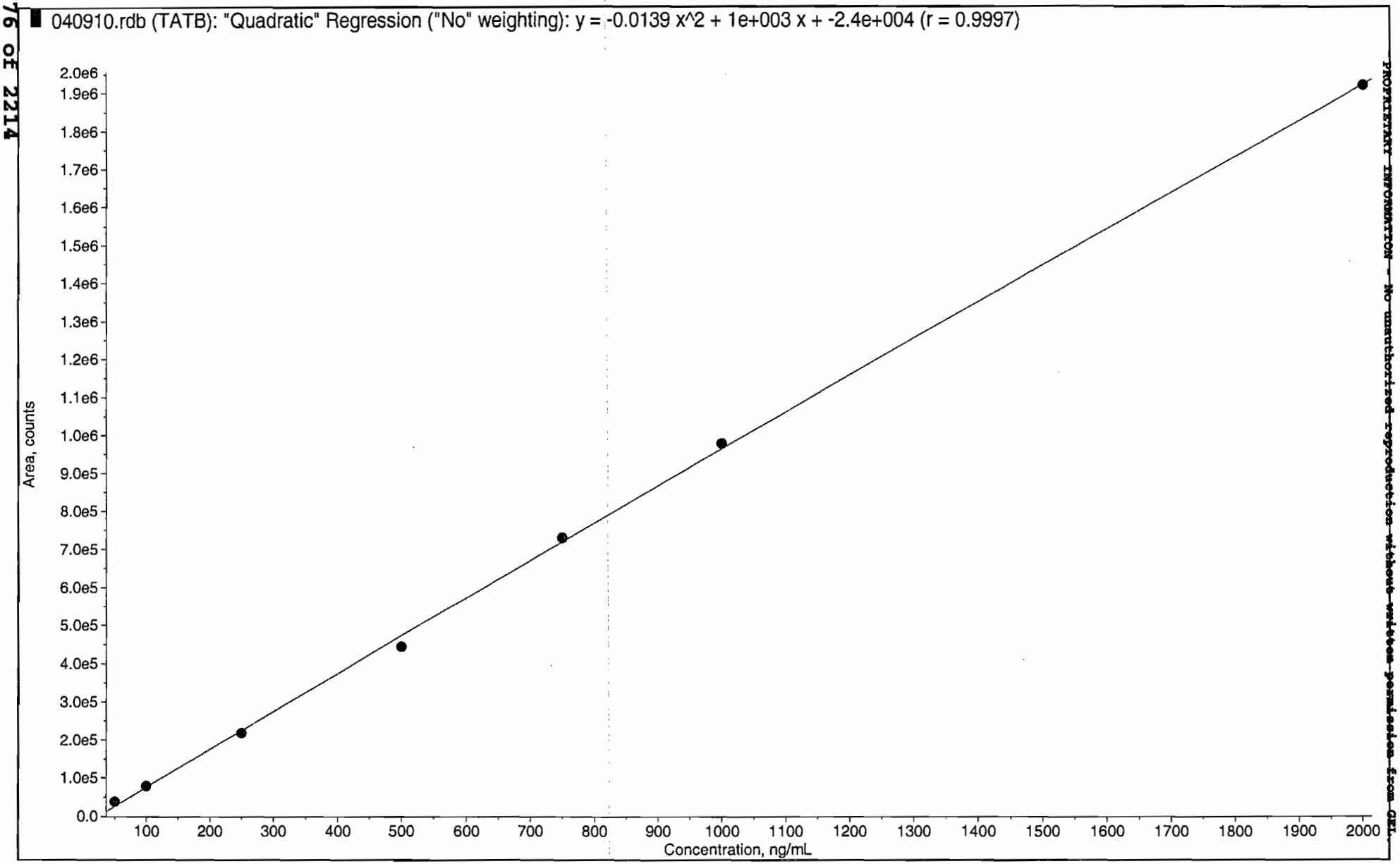

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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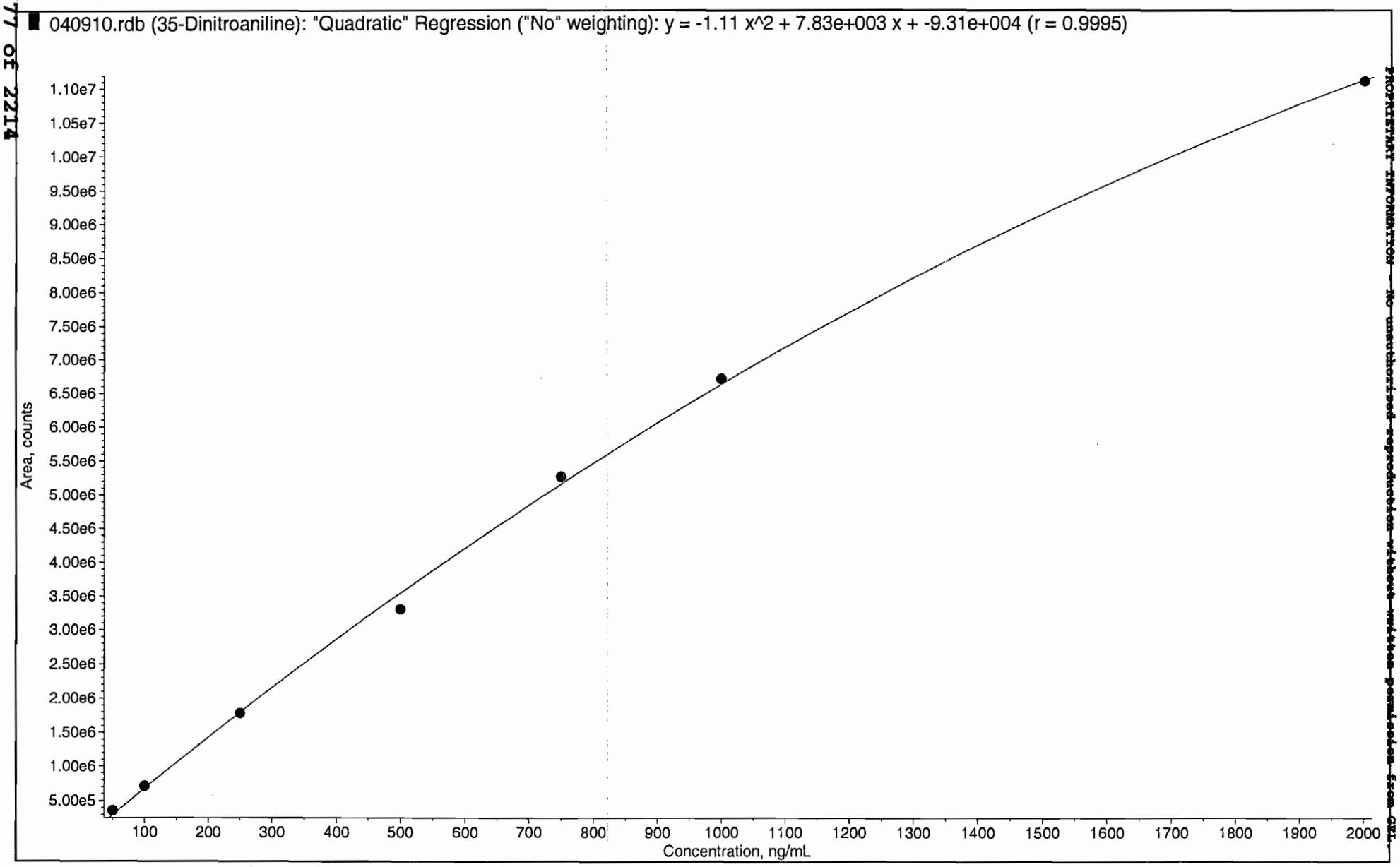

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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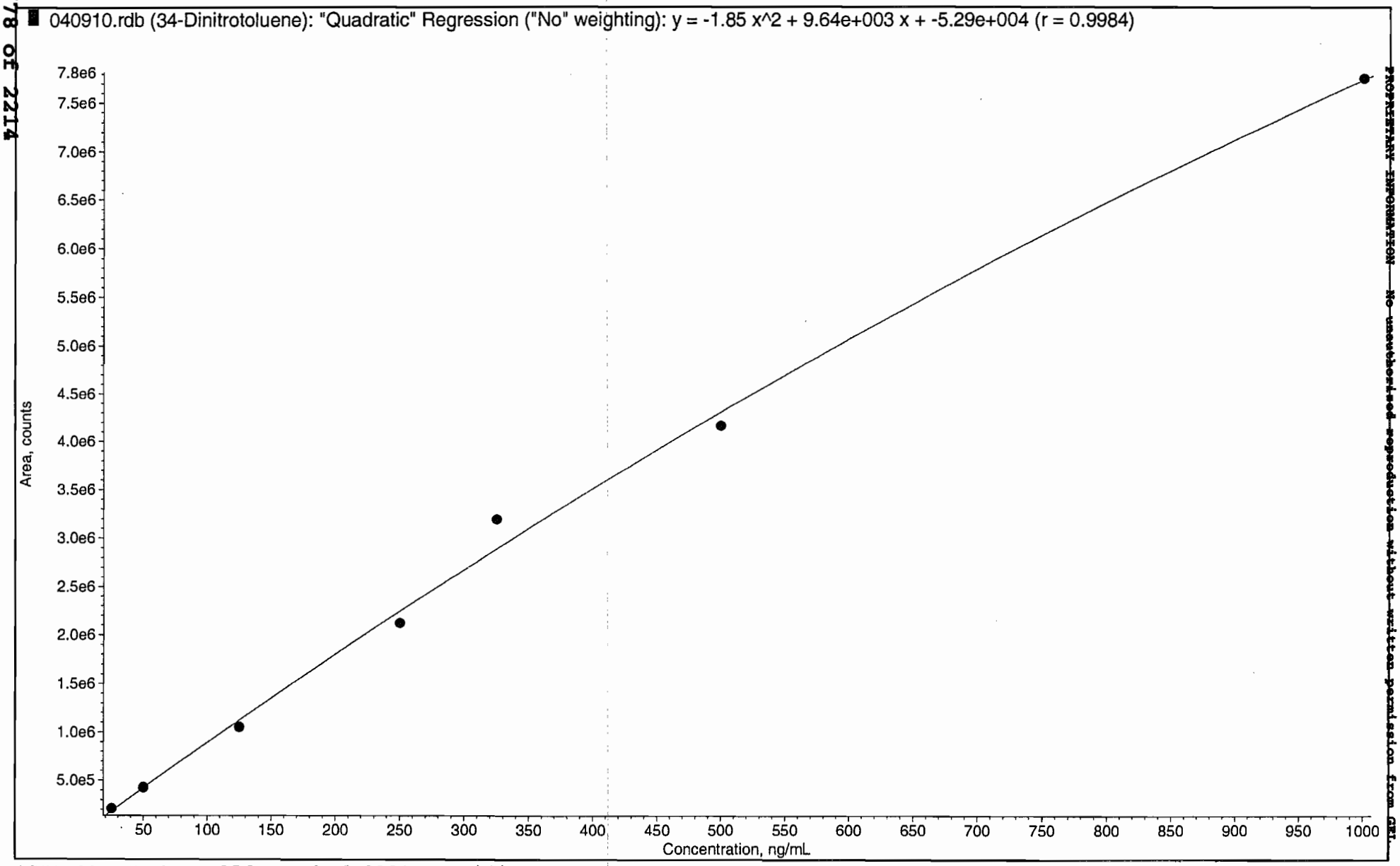

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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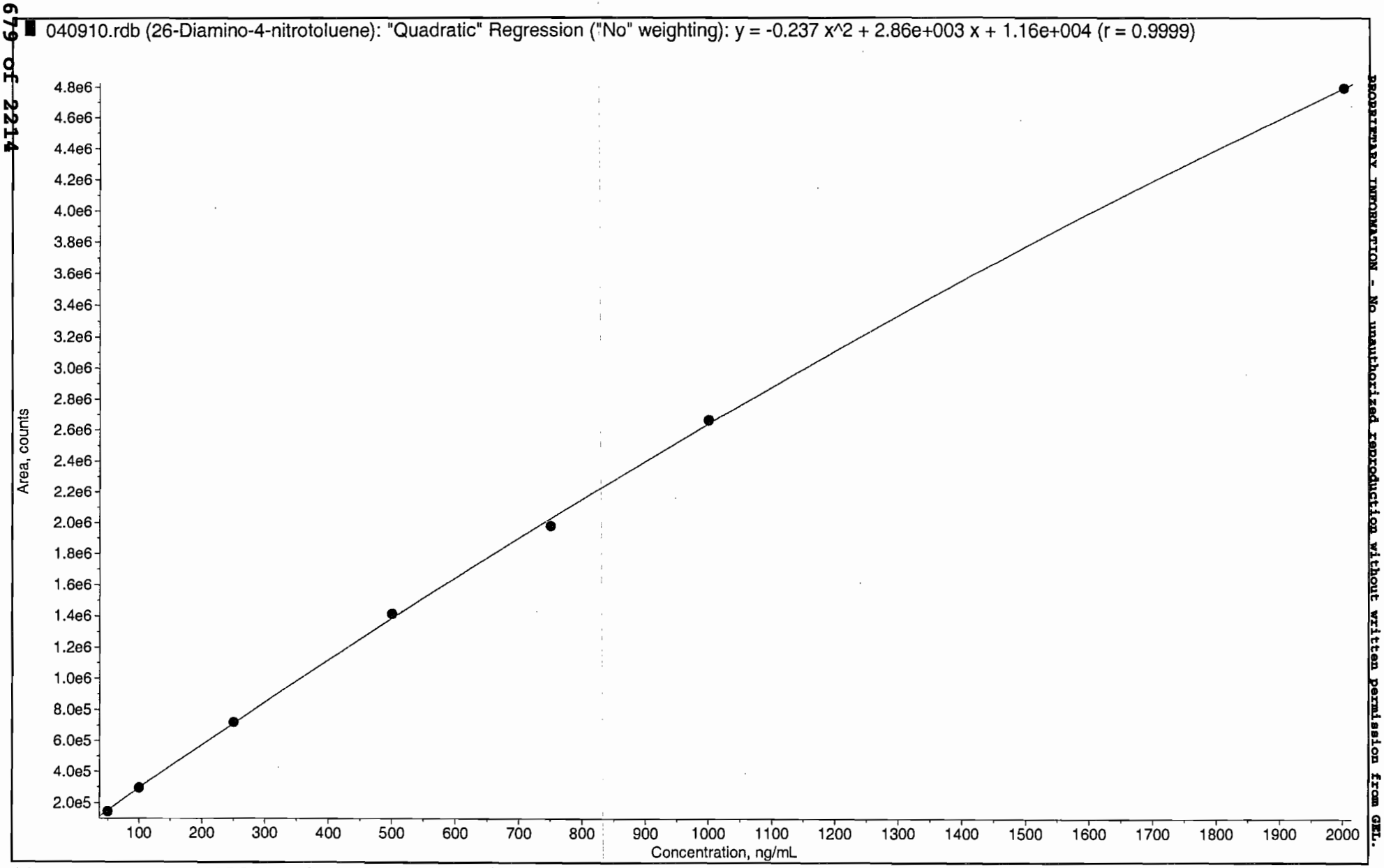

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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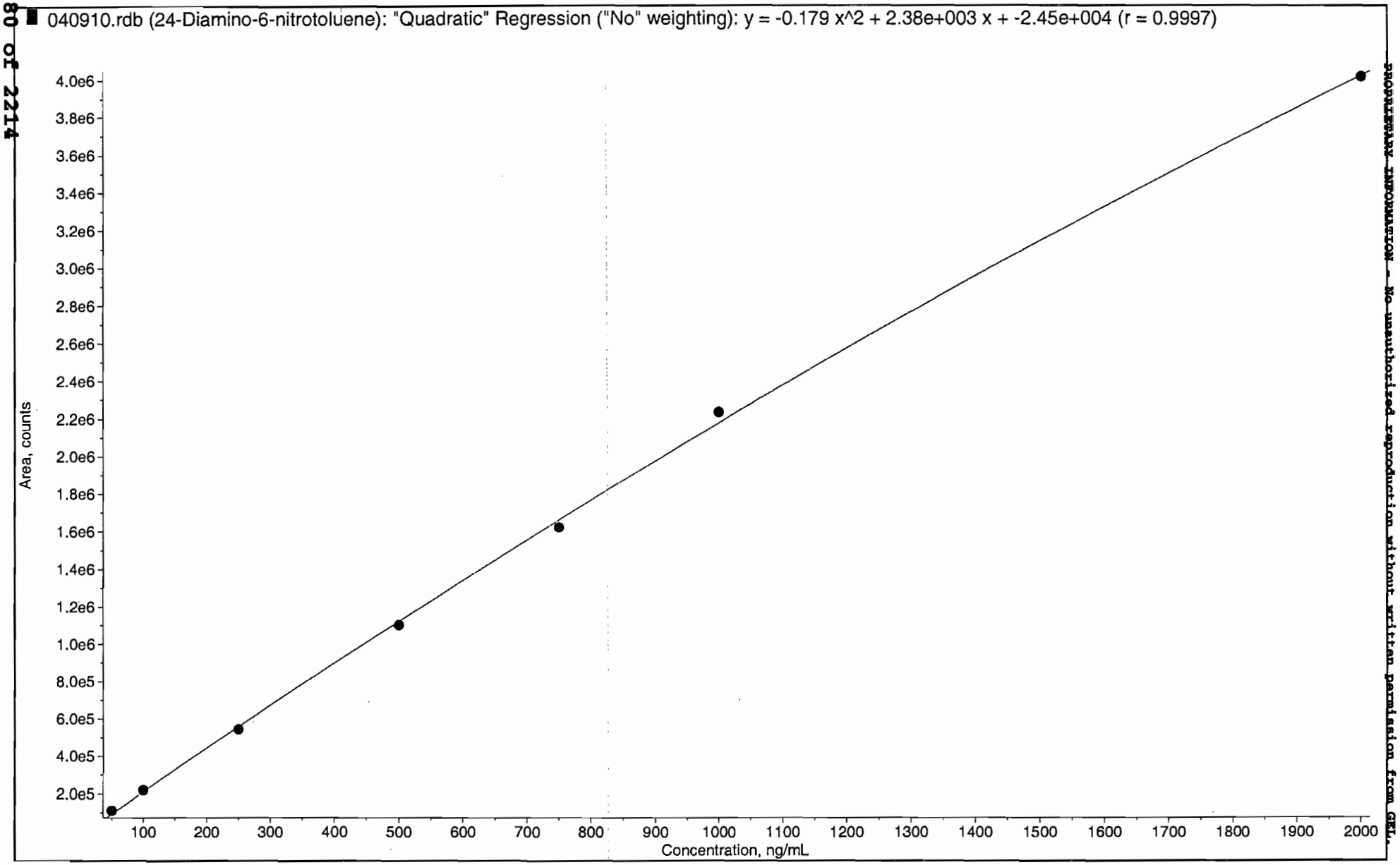

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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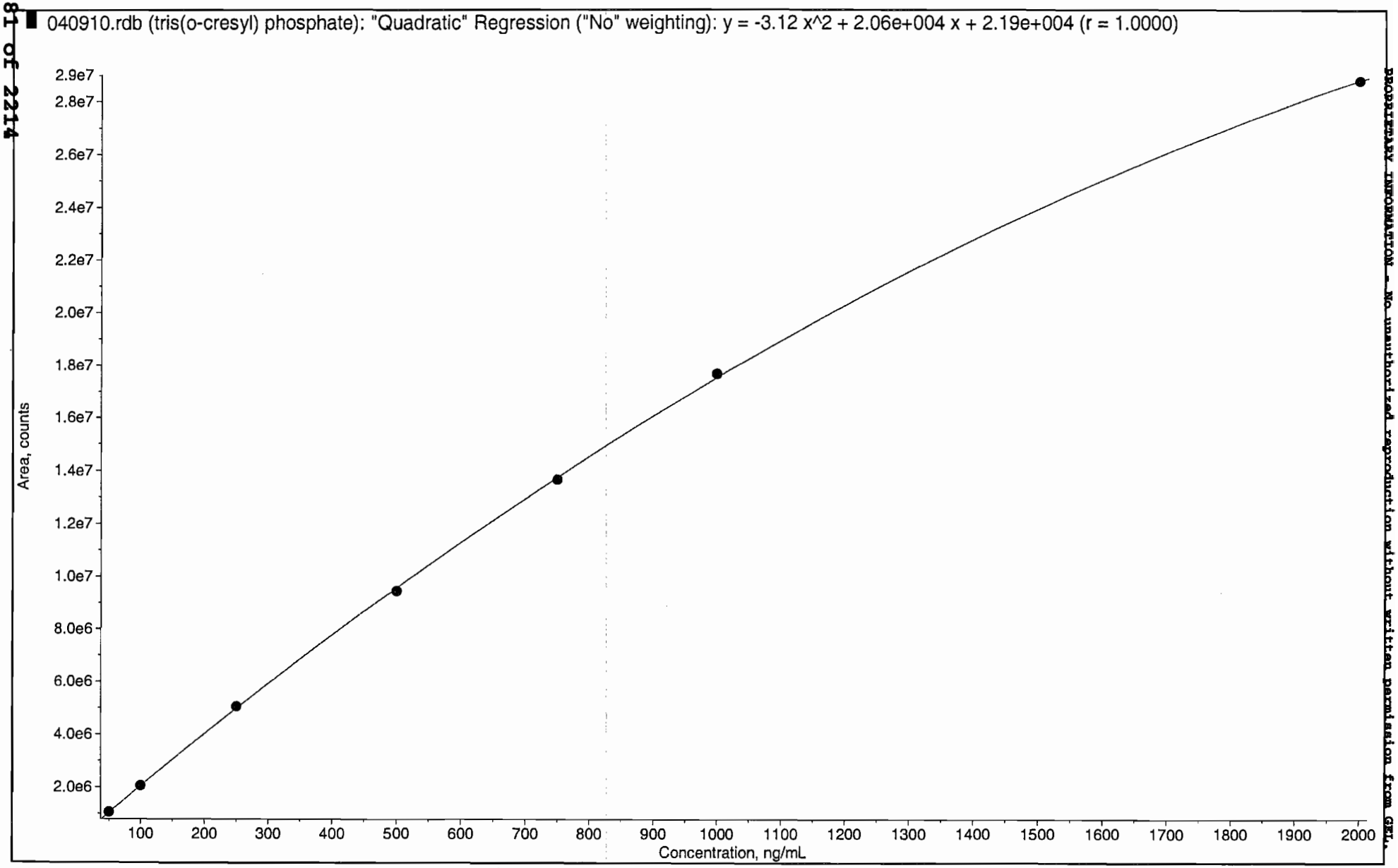

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS04090011.wiff

Analysis Date: 09–APR–10 09:51

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	462	92	
2,6–Diamino–4–nitrotoluene	500	477	95	
3,4–Dinitrotoluene	250	230	92	
3,5–Dinitroaniline	500	456	91	
TATB	500	482	97	
tris(o–cresyl) phosphate	500	504	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

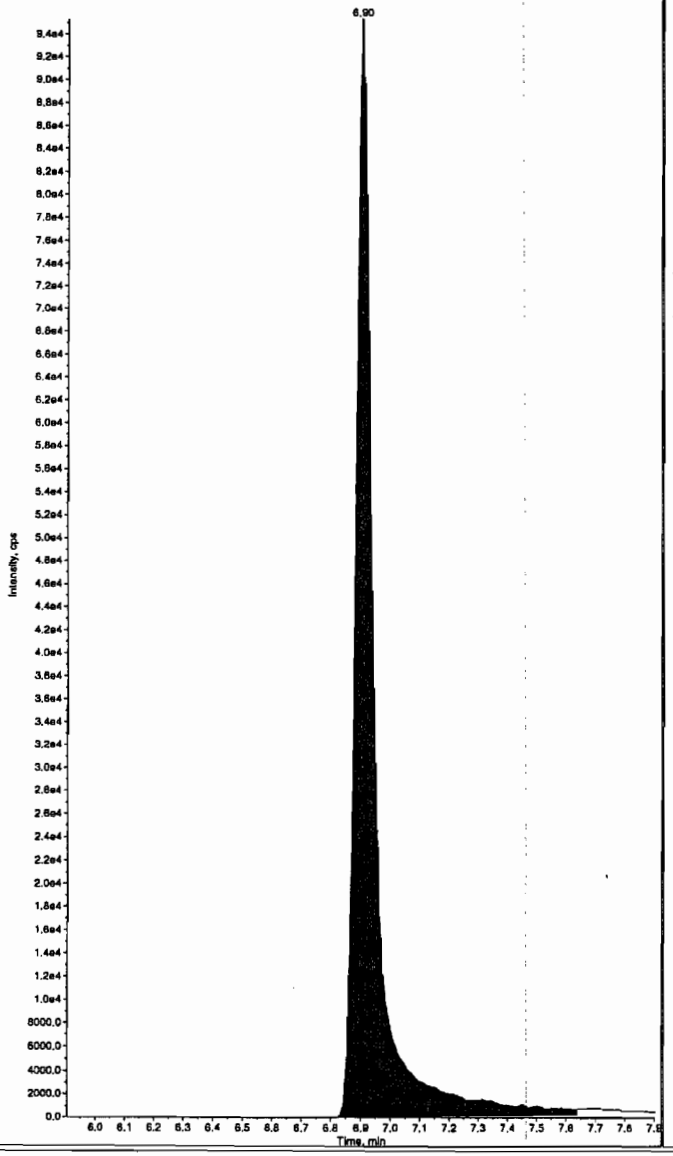
KAR 4/12/10

Sample Name: "WXX100409-26ICV" Sample ID: "|1|LER" File: "EXS04090011.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: 482. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 9:51:53 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.90 min
Area: 4.55e+005 counts
Height: 95236.343 cps
Start Time: 6.81 min
End Time: 7.64 min

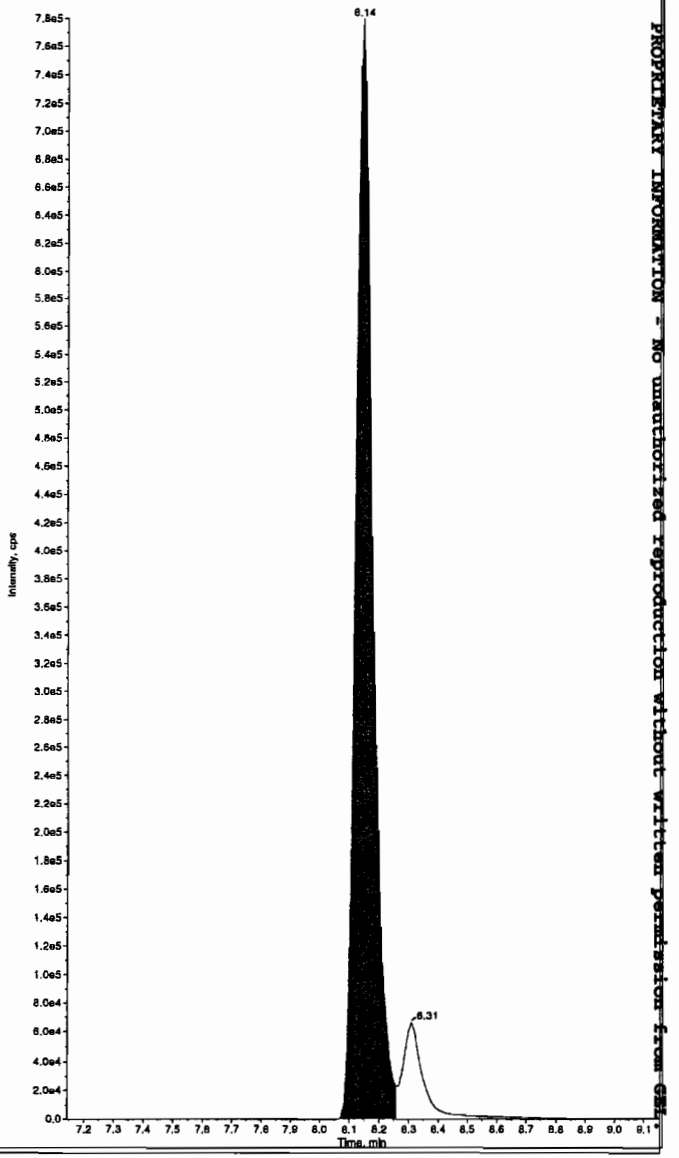


Sample Name: "WXX100409-26ICV" Sample ID: "|1|LER" File: "EXS04090011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 456. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 9:51:53 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 3.24e+006 counts
Height: 779844.666 cps
Start Time: 8.03 min
End Time: 8.26 min



Hnm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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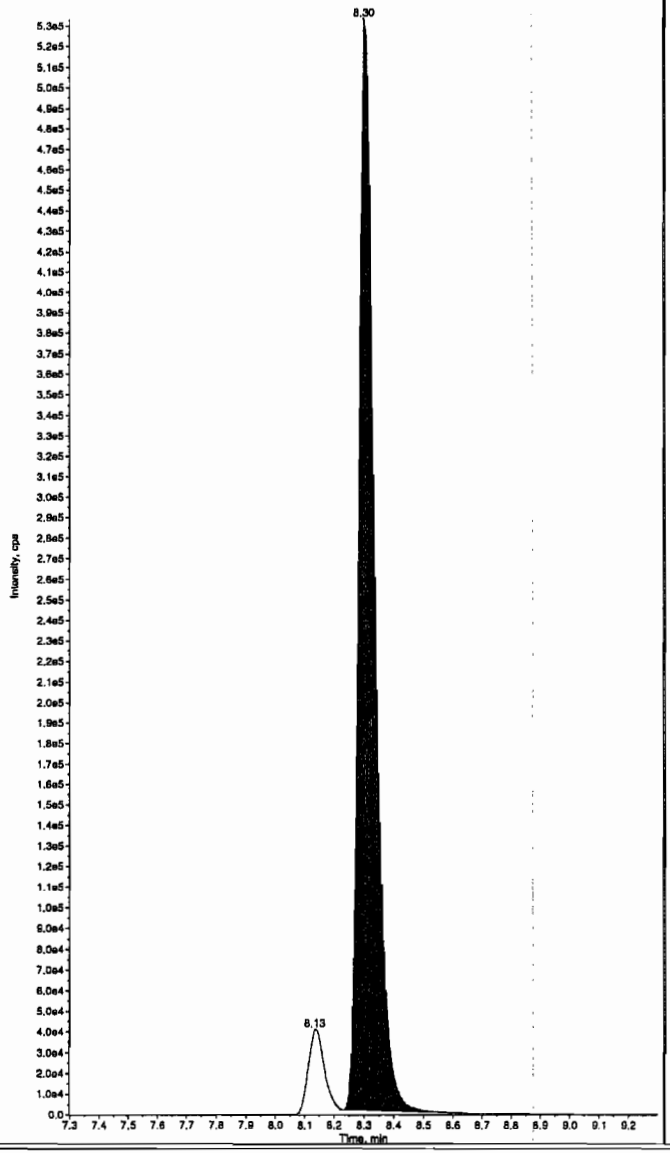
Sample Name: "WXX100409-26ICV" Sample ID: "|1|LER" File: "EXS04090011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 230. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 9:51:53 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: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 2.07e+006 counts
Height: 531213.501 cps
Start Time: 8.23 min
End Time: 8.67 min

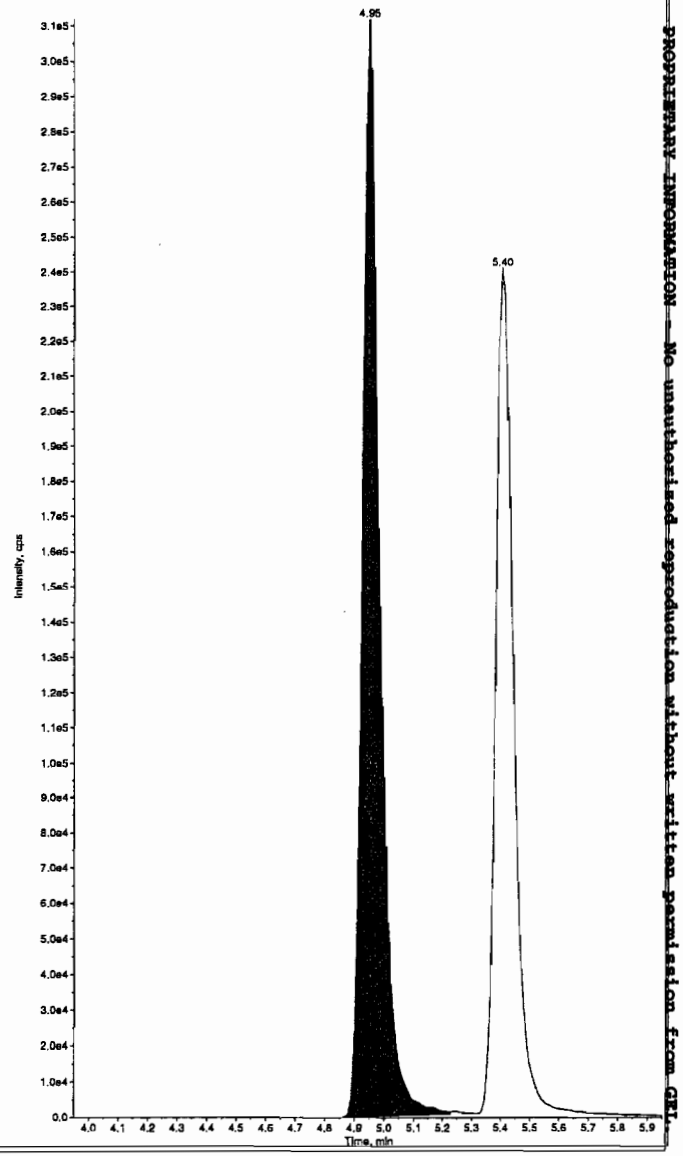


Sample Name: "WXX100409-26ICV" Sample ID: "|1|LER" File: "EXS04090011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 477. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 9:51:53 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.32e+006 counts
Height: 311597.504 cps
Start Time: 4.85 min
End Time: 5.23 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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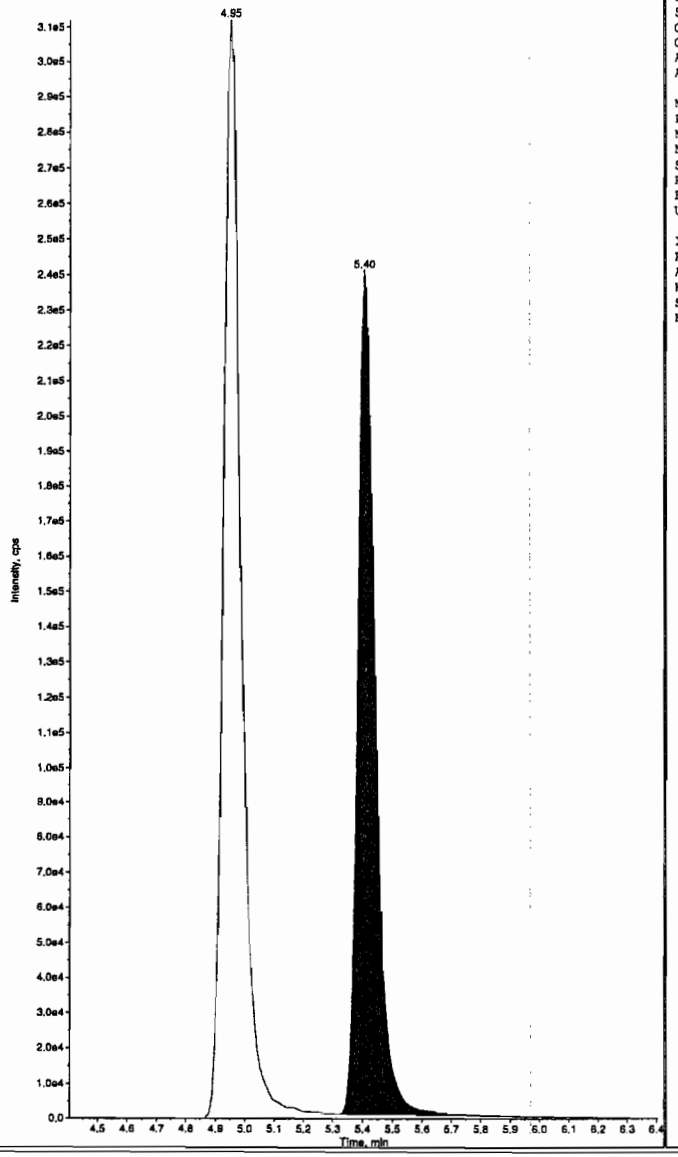
Sample Name: "WXX100409-26ICV" Sample ID: "[1]LER" File: "EXS04090011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.    ng/mL
Calculated Conc:    462.    ng/mL
Acq. Date:       4/9/2010
Acq. Time:       9:51:53 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:        5.40   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.40   min
Area:         1.04e+006   counts
Height:        239969.345  cps
Start Time:         5.32   min
End Time:           5.83   min
```

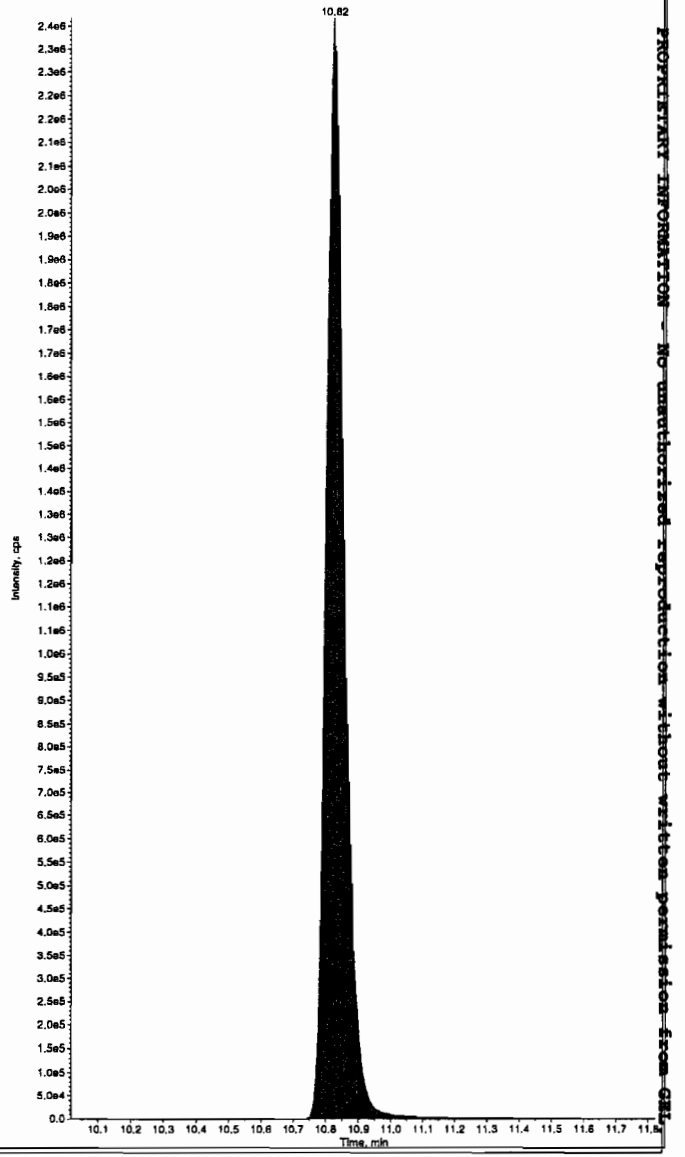


Sample Name: "WXX100409-26ICV" Sample ID: "[1]LER" File: "EXS04090011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.    ng/mL
Calculated Conc:    504.    ng/mL
Acq. Date:       4/9/2010
Acq. Time:       9:51:53 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:        10.8   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8   min
Area:         9.61e+006   counts
Height:       2366707.275  cps
Start Time:         10.7   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): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415012.wiff

Analysis Date: 15-APR-10 14:53

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	36.2	91	
2,4,6-Trinitrotoluene	40	38	95	
2,4-Dinitrotoluene	40	31.4	79	
2,6-Dinitrotoluene	40	33.2	83	
2-Amino-4,6-dinitrotoluene	40	33.9	85	
3,4-Dinitrotoluene	20	16.9	85	
4-Amino-2,6-dinitrotoluene	40	35.7	89	
HMX	40	38	95	
Nitrobenzene	40	43.3	108	
PETN	40	36.7	92	
RDX	40	37	93	
Tetryl	40	38.5	96	
m-Dinitrobenzene	40	38.9	97	
m-Nitrotoluene	40	38.1	95	
o-Nitrotoluene	40	41.4	104	
p-Nitrotoluene	40	40.9	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

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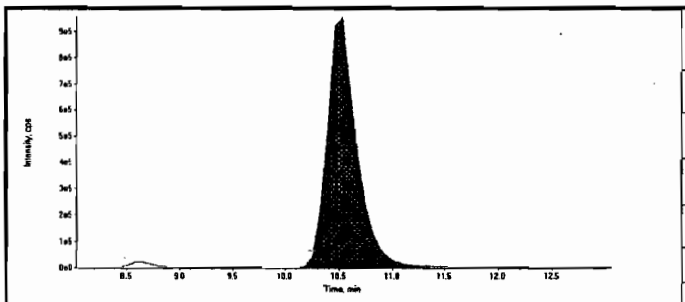
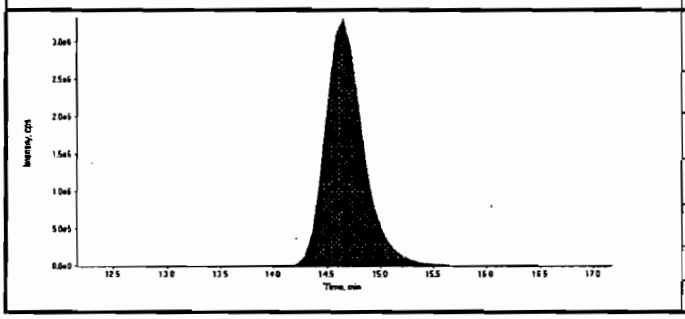
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

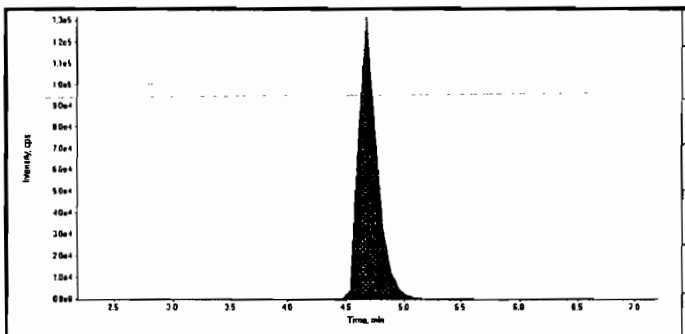
Data File	EXP0415012.wiff	**Acquisition Date**	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



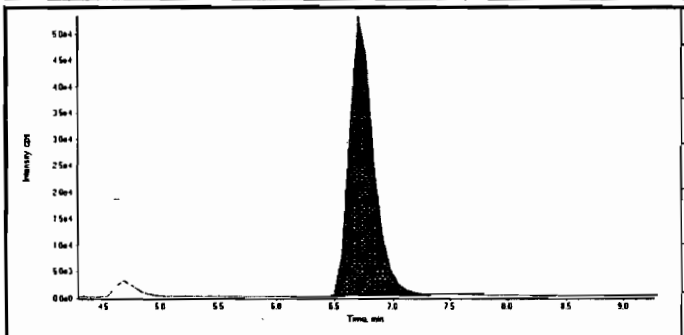
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	81400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.47e+006
Manual Modification	No
Amount:	38.0 (ng/mL)
% Accuracy:	94.90



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	7.82e+005
Manual Modification	No
Amount:	37.0 (ng/mL)
% Accuracy:	92.60

HAM 04/23/10
Scan 4/23/10

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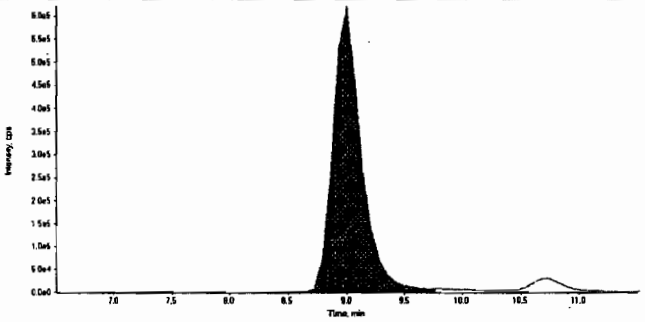
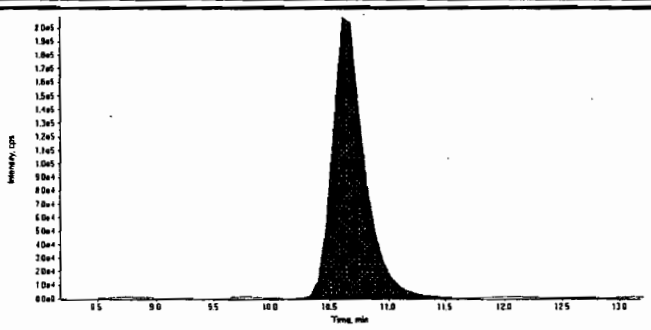
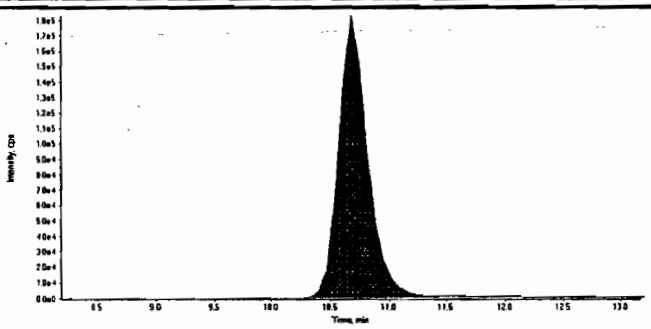
Data File	EXP0415012.wiff	**Acquisition Date**	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



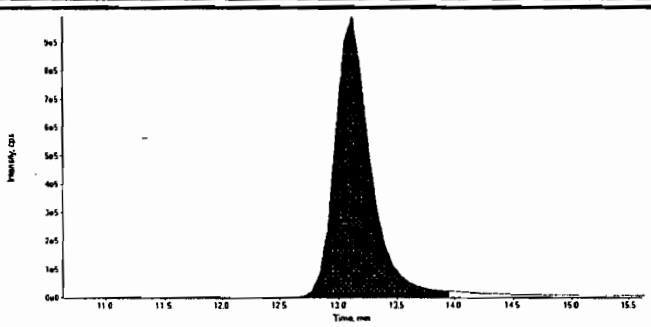
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.06e+007
Manual Modification	No
Amount:	36.2 (ng/mL)
% Accuracy:	90.60



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	4.02e+006
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.30



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.18e+006
Manual Modification	No
Amount:	38.5 (ng/mL)
% Accuracy:	96.30



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	2.12e+007
Manual Modification	No
Amount:	38.0 (ng/mL)
% Accuracy:	95.00

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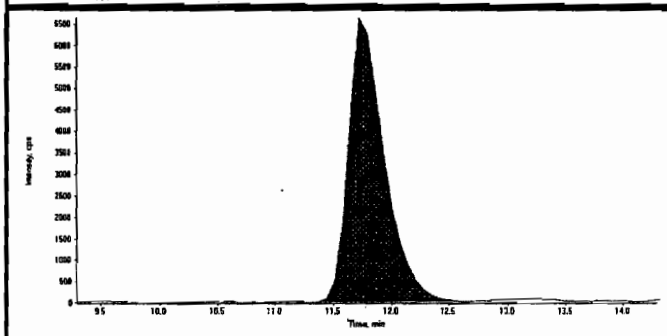
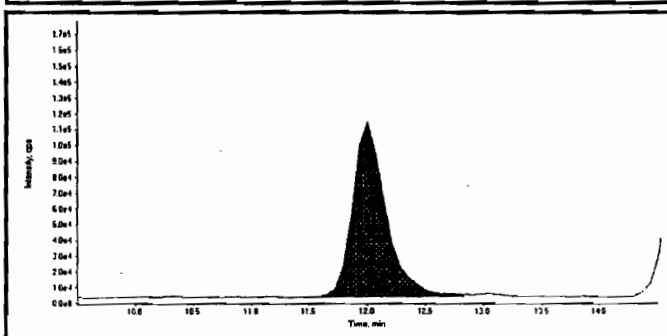
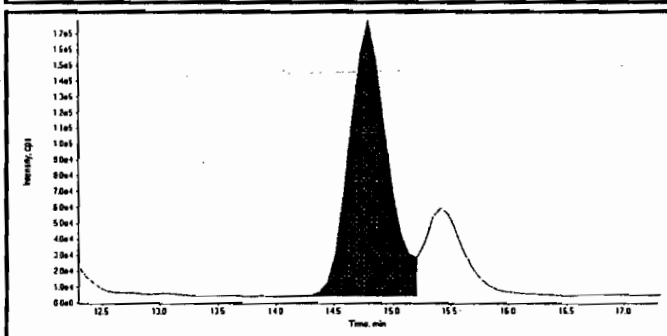
Data File	EXP0415012.wiff	**Acquisition Date**	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



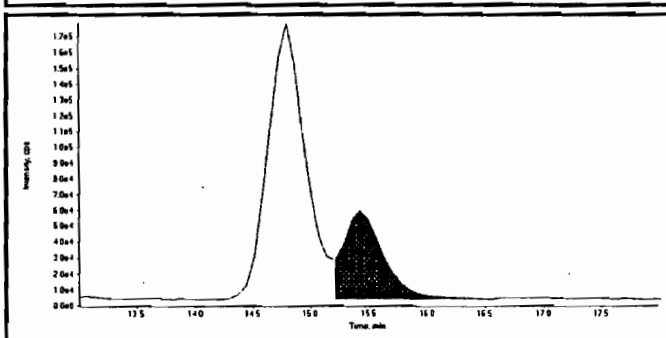
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.7
Area Counts:	1.43e+005
Manual Modification	No
Amount:	43.3 (ng/mL)
% Accuracy:	108.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	2.28e+006
Manual Modification	No
Amount:	16.9 (ng/mL)
% Accuracy:	84.60



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	4.01e+006
Manual Modification	No
Amount:	33.2 (ng/mL)
% Accuracy:	82.90



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.4
Area Counts:	1.39e+006
Manual Modification	No
Amount:	31.4 (ng/mL)
% Accuracy:	78.50

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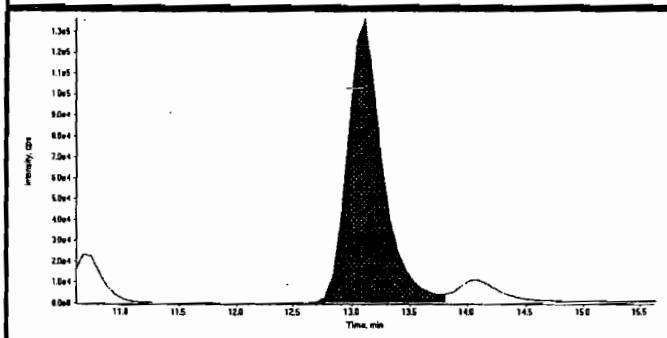
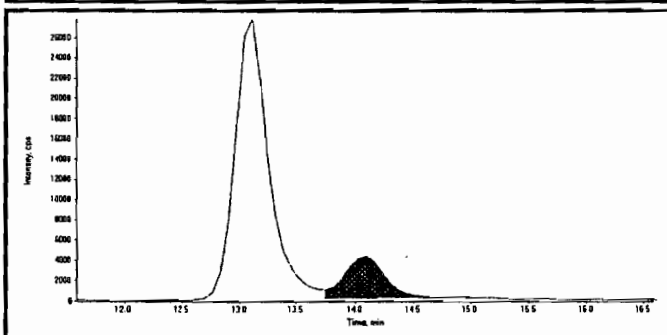
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

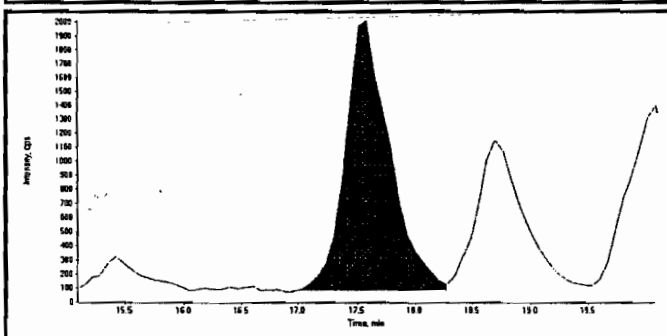
Data File	EXP0415012.wiff	**Acquisition Date**	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



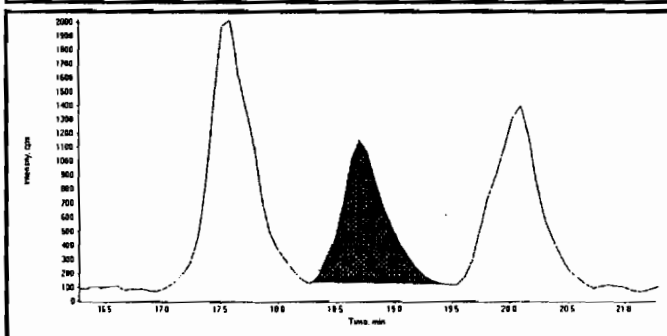
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	2.89e+006
Manual Modification	No
Amount:	35.7 (ng/mL)
% Accuracy:	89.30



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.1
Area Counts:	1.03e+005
Manual Modification	No
Amount:	33.9 (ng/mL)
% Accuracy:	84.60



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	5.17e+004
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	104.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.7
Area Counts:	2.66e+004
Manual Modification	No
Amount:	40.9 (ng/mL)
% Accuracy:	102.00

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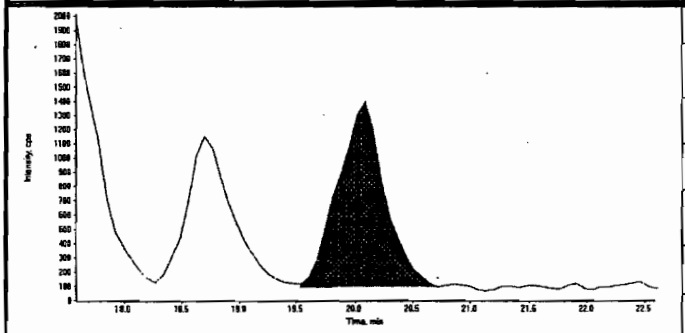
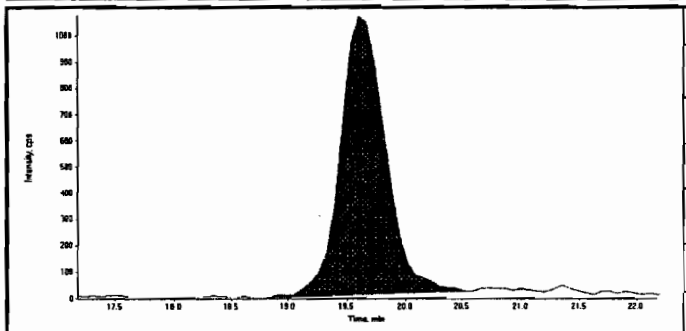
Data File	EXP0415012.wiff	**Acquisition Date**	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	3.67e+004
Manual Modification	No
Amount:	38.1 (ng/mL)
% Accuracy:	95.40



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.6
Area Counts:	2.91e+004
Manual Modification	No
Amount:	36.7 (ng/mL)
% Accuracy:	91.80

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/15/10
Time of Injection 1453
Standard Number WXX100415-57CRI
Data File EXP0415012a

HMX	94.9
RDX	92.6
135-Trinitrobenzene	90.6
13-Dinitrobenzene	97.3
Tetryl	96.3
246-Trinitrotoluene	95.0
Nitrobenzene	108.0
34-dinitrotoluene	84.6
26-dinitrotoluene	82.9
24-dinitrotoluene	78.5
4-Amino-26-dinitrotoluene	89.3
2-Amino-46-dinitrotoluene	84.6
2-Nitrotoluene	104.0
4-Nitrotoluene	102.0
3-Nitrotoluene	95.4
PETN	91.8
TOTAL	1487.8
AVERAGE	93.0

Hmm 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Sar 4/23/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415023.wiff

Analysis Date: 15–APR–10 19:38

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	525	87	
2,4,6–Trinitrotoluene	600	545	91	
2,4–Dinitrotoluene	600	570	95	
2,6–Dinitrotoluene	600	570	95	
2–Amino–4,6–dinitrotoluene	600	593	99	
3,4–Dinitrotoluene	300	291	97	
4–Amino–2,6–dinitrotoluene	600	640	107	
HMX	600	520	87	
Nitrobenzene	600	601	100	
PETN	600	663	111	
RDX	600	629	105	
Tetryl	600	529	88	
m–Dinitrobenzene	600	543	91	
m–Nitrotoluene	600	613	102	
o–Nitrotoluene	600	592	99	
p–Nitrotoluene	600	629	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 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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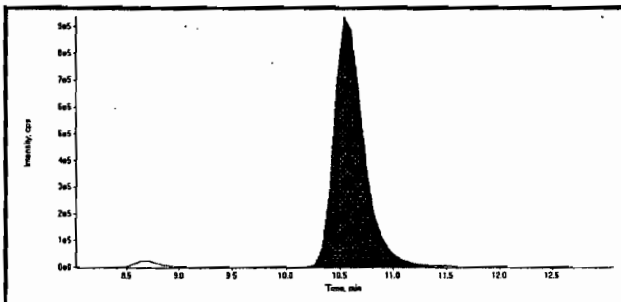
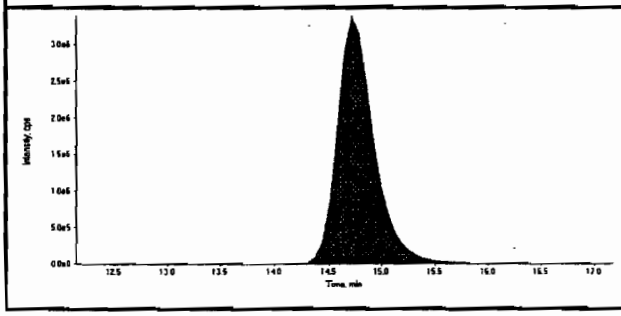
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

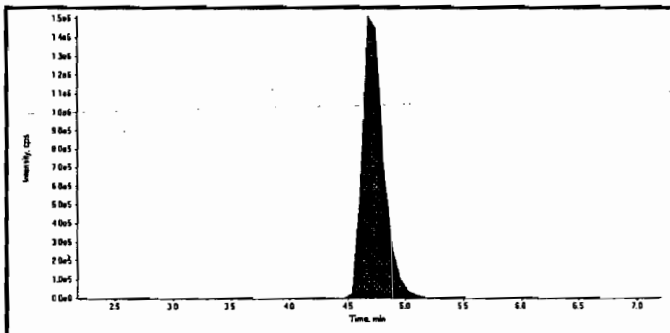
Data File	EXP0415023.wiff	**Acquisition Date**	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



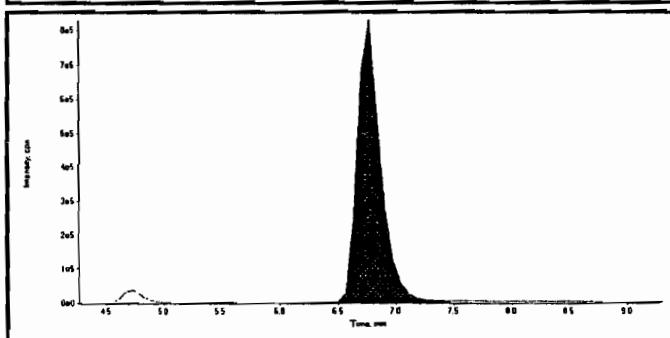
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	82900000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.97e+007
Manual Modification	No
Amount:	520. (ng/mL)
% Accuracy:	86.70



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.21e+007
Manual Modification	No
Amount:	629. (ng/mL)
% Accuracy:	105.00

dmm 04/23/10

JLan 4/23/10

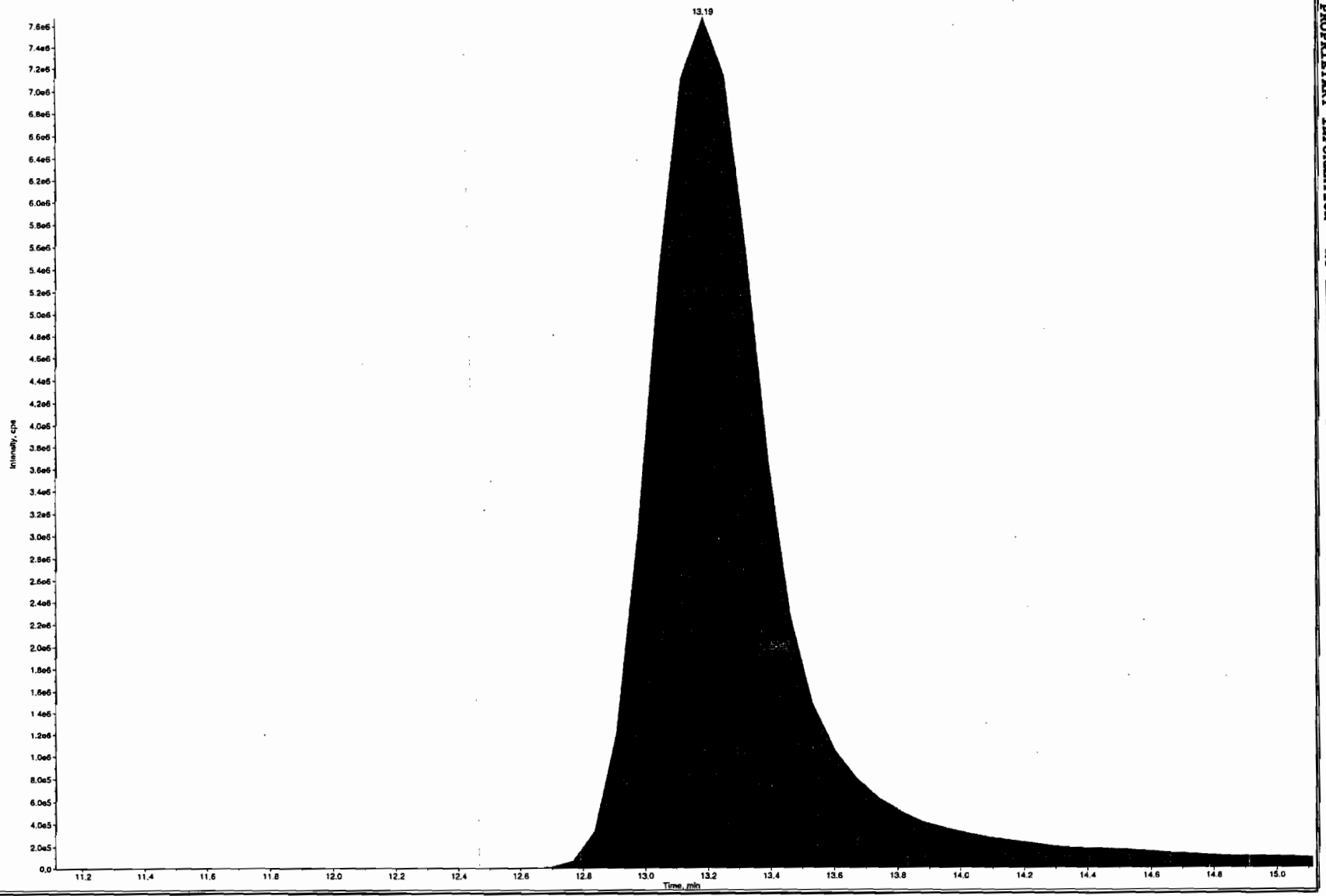
Before dcn 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415023.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 603. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 7:18:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.2 min
Area: 2.20e+008 counts
Height: 7.67e+006 cps
Start Time: 12.5 min
End Time: 17.8 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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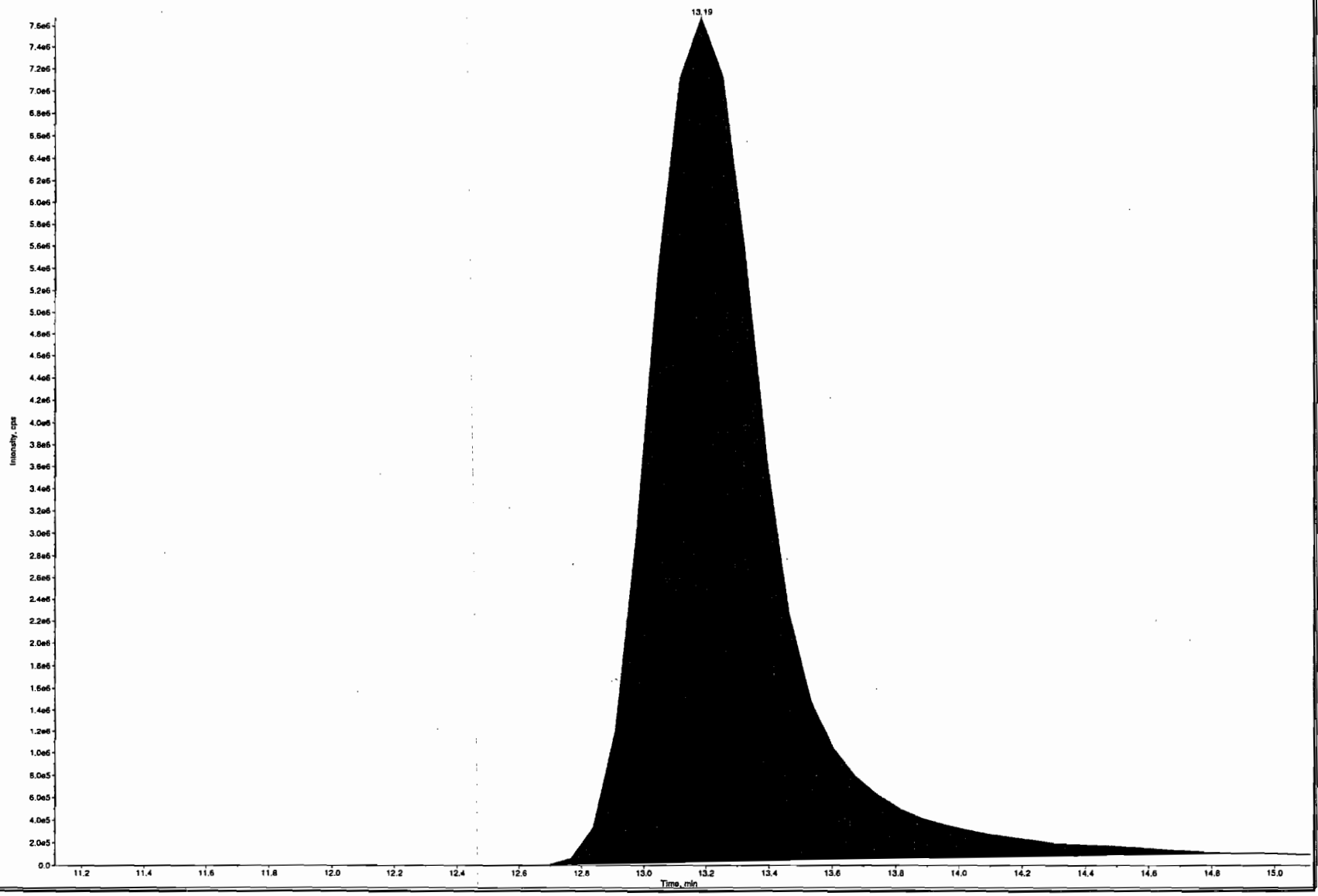
after Dan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "1|1|LER" File: "EXP0415023.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 545. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 7:38:20 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 13.2 min
Area: 2.06e+008 counts
Height: 7.65e+006 cps
Start Time: 12.6 min
End Time: 14.9 min



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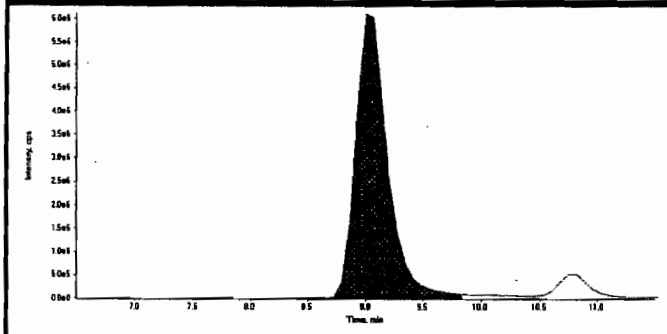
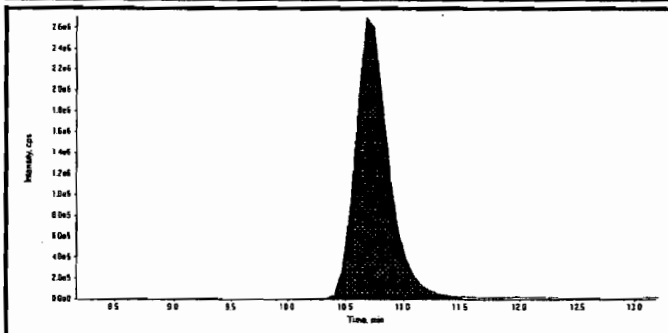
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

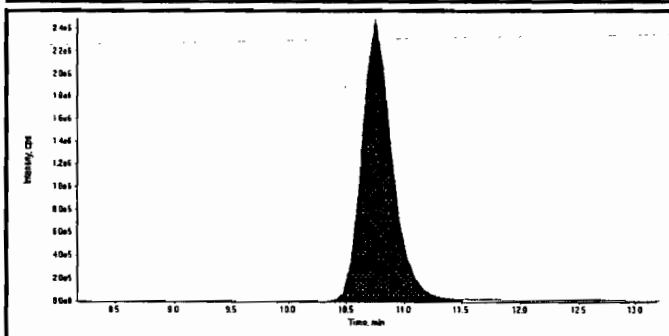
Data File	EXP0415023.wiff	**Acquisition Date**	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



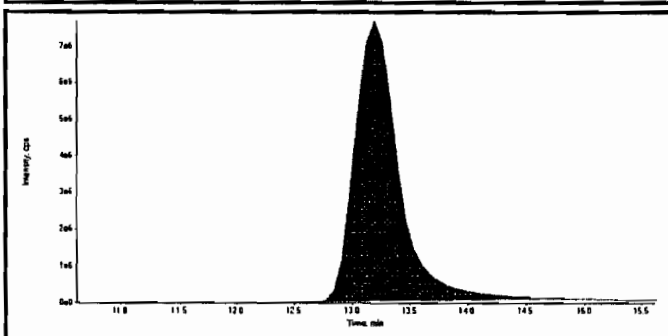
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.20e+008
Manual Modification	No
Amount:	525. (ng/mL)
% Accuracy:	87.40



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	5.50e+007
Manual Modification	No
Amount:	543. (ng/mL)
% Accuracy:	90.60



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.56e+007
Manual Modification	No
Amount:	529. (ng/mL)
% Accuracy:	88.20



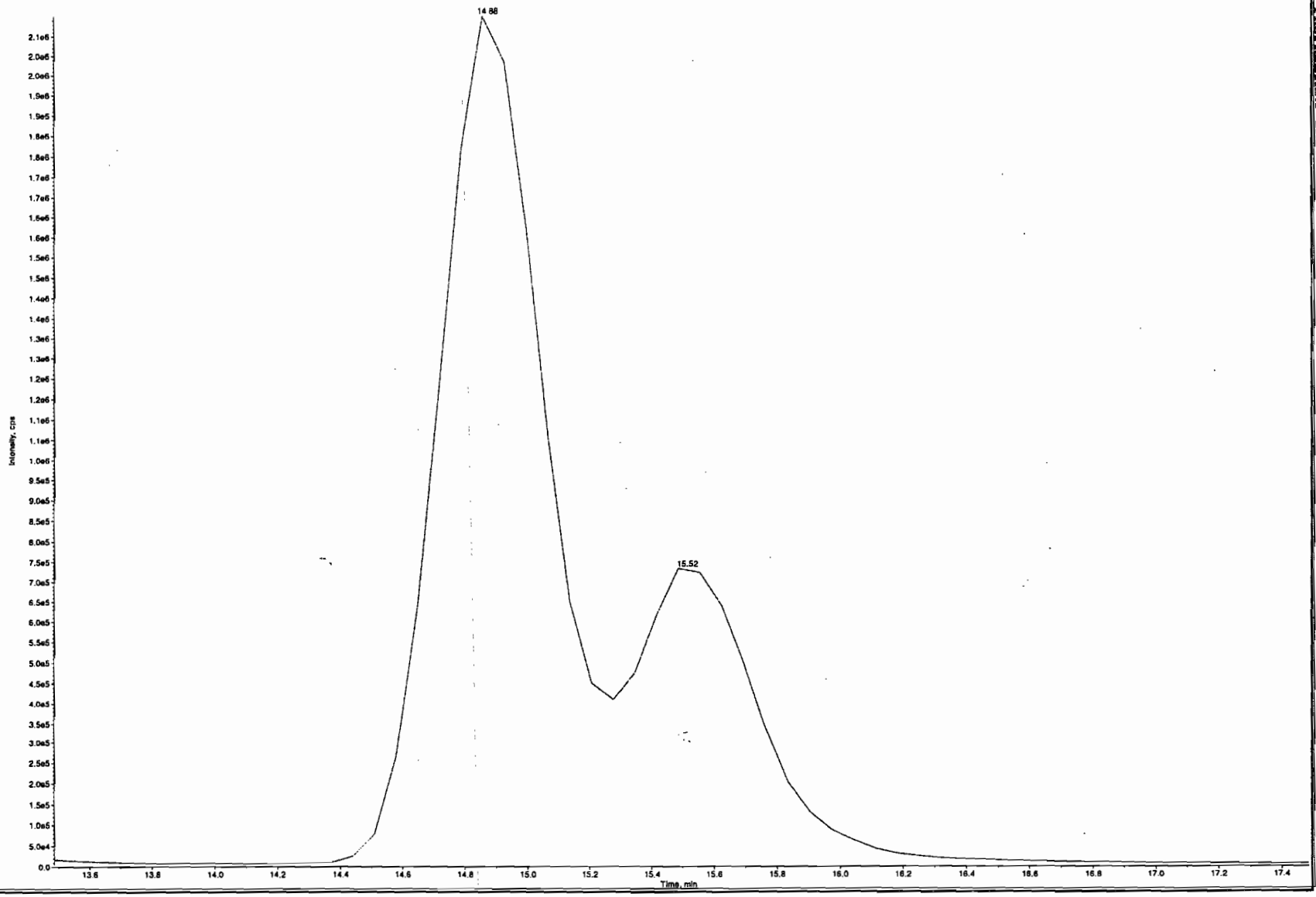
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.06e+008
Manual Modification	Yes
Amount:	545. (ng/mL)
% Accuracy:	90.80

Before Chan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "J1ILER" File: "EXP0415023.wif"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 7:38:20 PM

Modified: No



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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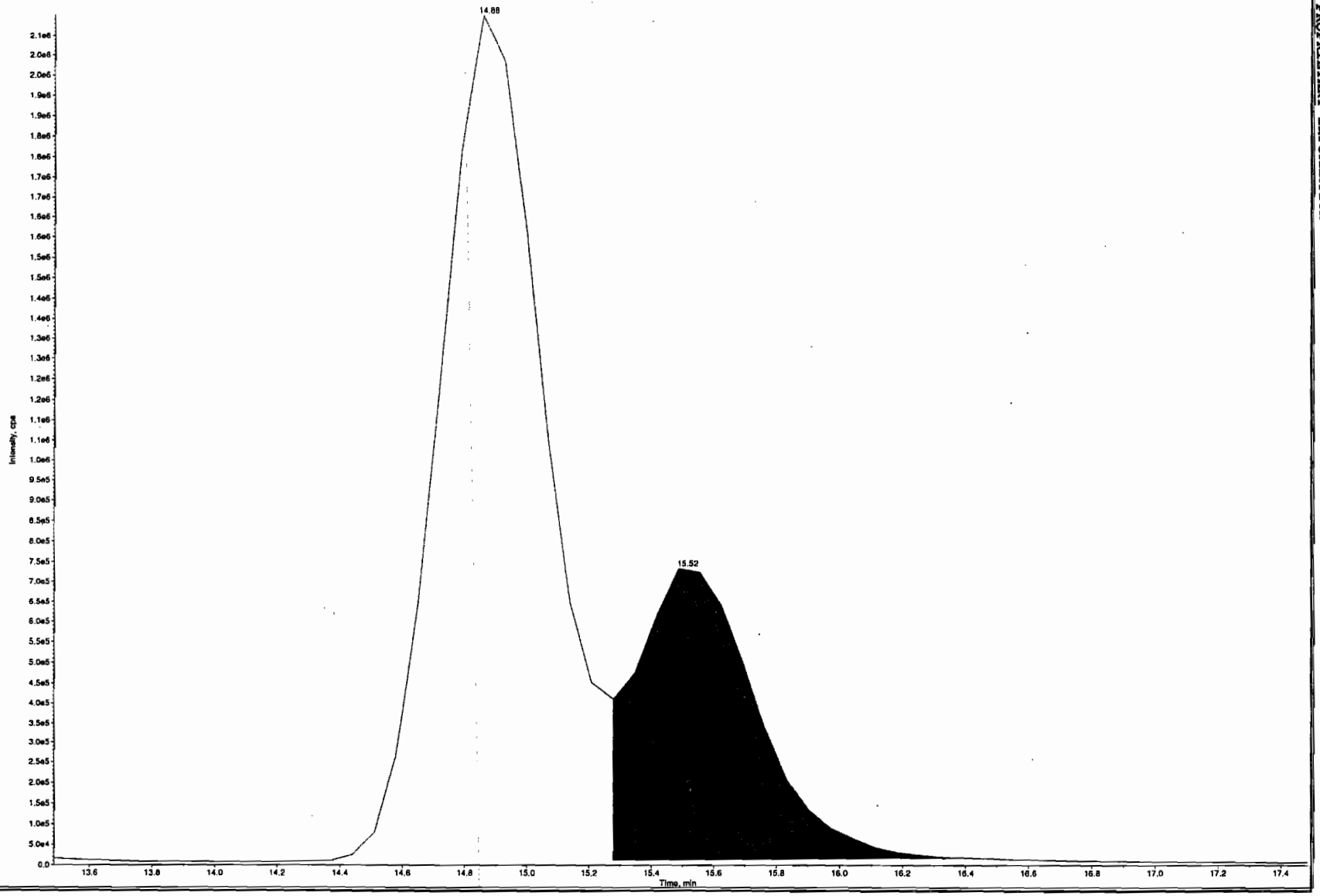
after Dan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415023.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 570. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 7:38:20 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 15.5 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 15.5 min
Area: 1.93e+007 counts
Height: 7.32e+005 cps
Start Time: 15.3 min
End Time: 16.4 min



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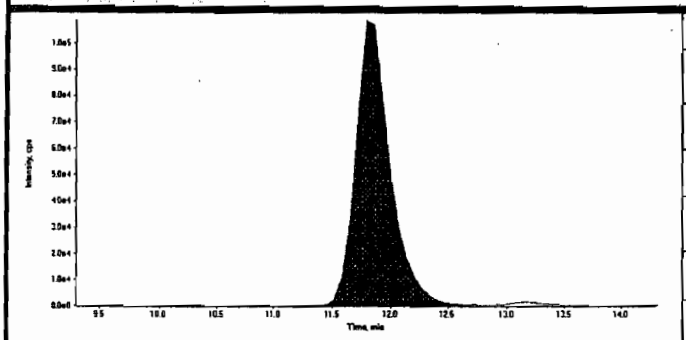
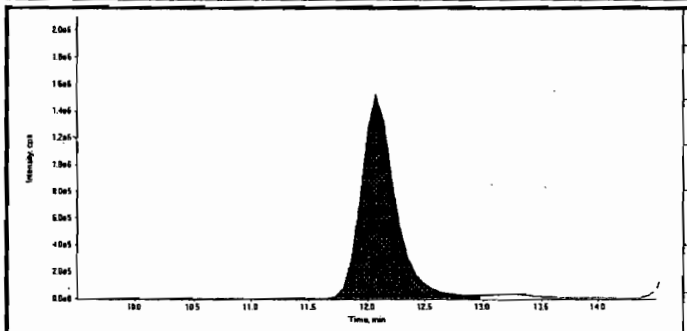
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

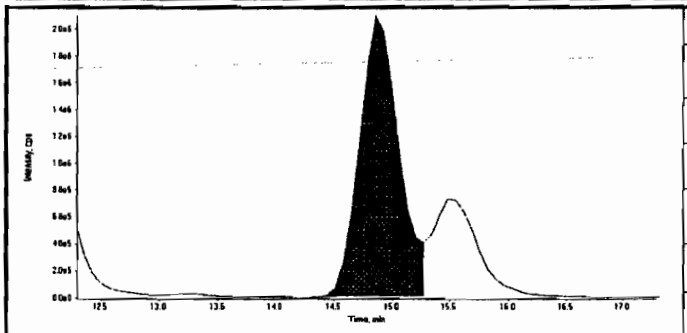
Data File	EXP0415023.wiff	**Acquisition Date**	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



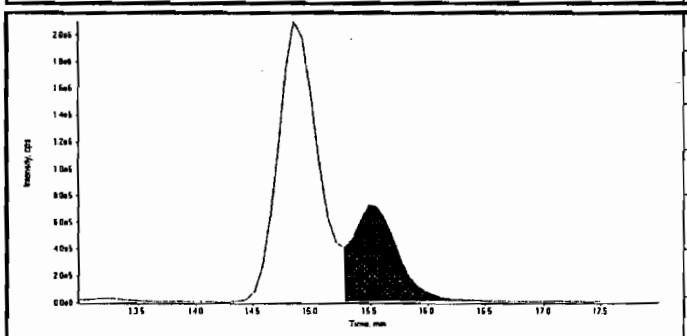
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	2.28e+006
Manual Modification	No
Amount:	601. (ng/mL)
% Accuracy:	100.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	3.16e+007
Manual Modification	No
Amount:	291. (ng/mL)
% Accuracy:	97.10



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	5.03e+007
Manual Modification	No
Amount:	570. (ng/mL)
% Accuracy:	95.00



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.93e+007
Manual Modification	Yes
Amount:	570. (ng/mL)
% Accuracy:	95.00

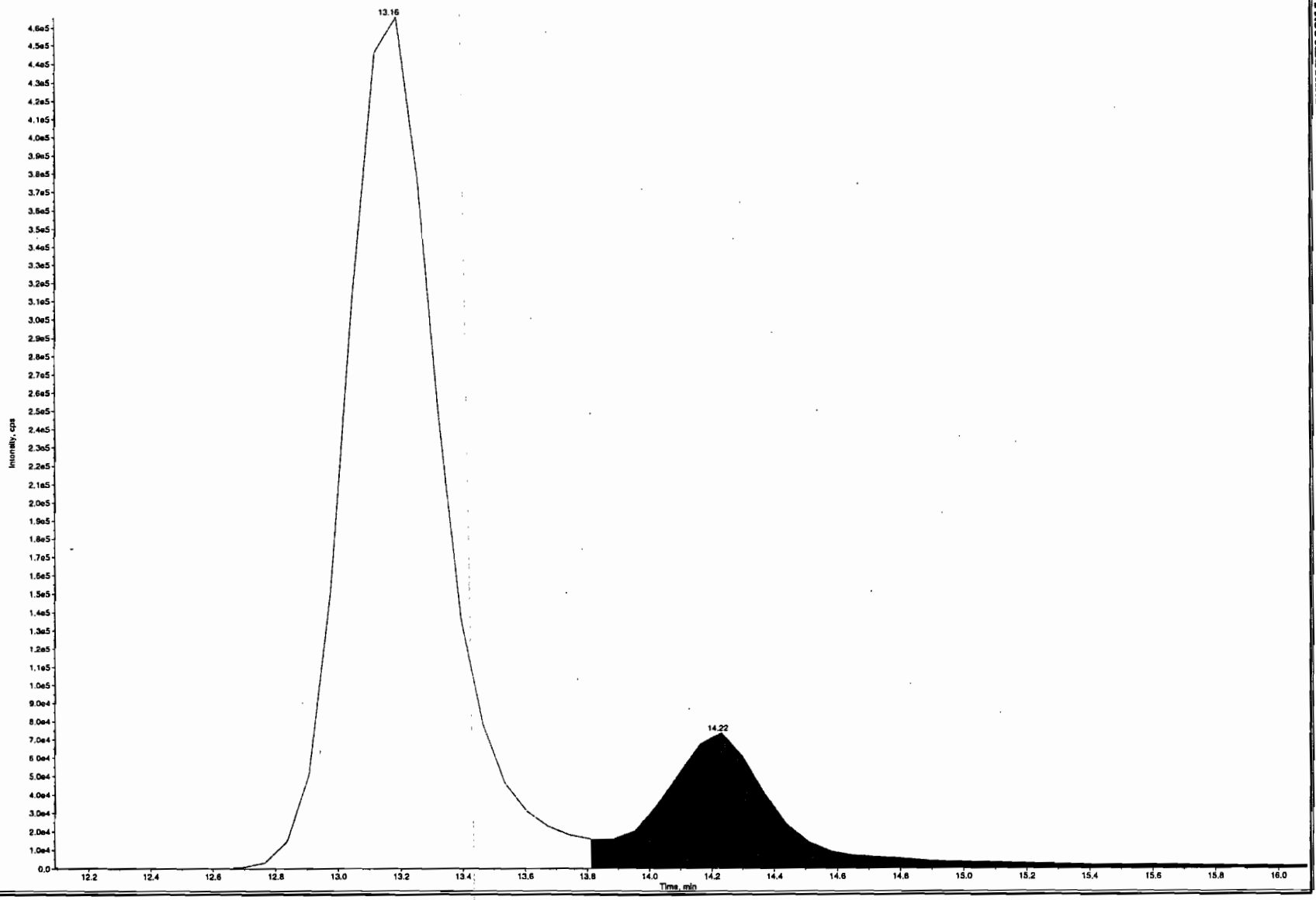
Before Ran 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "1||LER" File: "EXP0415023.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(est): "197.0/180.0 amu"
Comment: "\.CMSEXP_C" Annotation. ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 1060. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 7:38:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 3.29e+006 counts
Height: 8.32e+004 cps
Start Time: 13.8 min
End Time: 17.4 min



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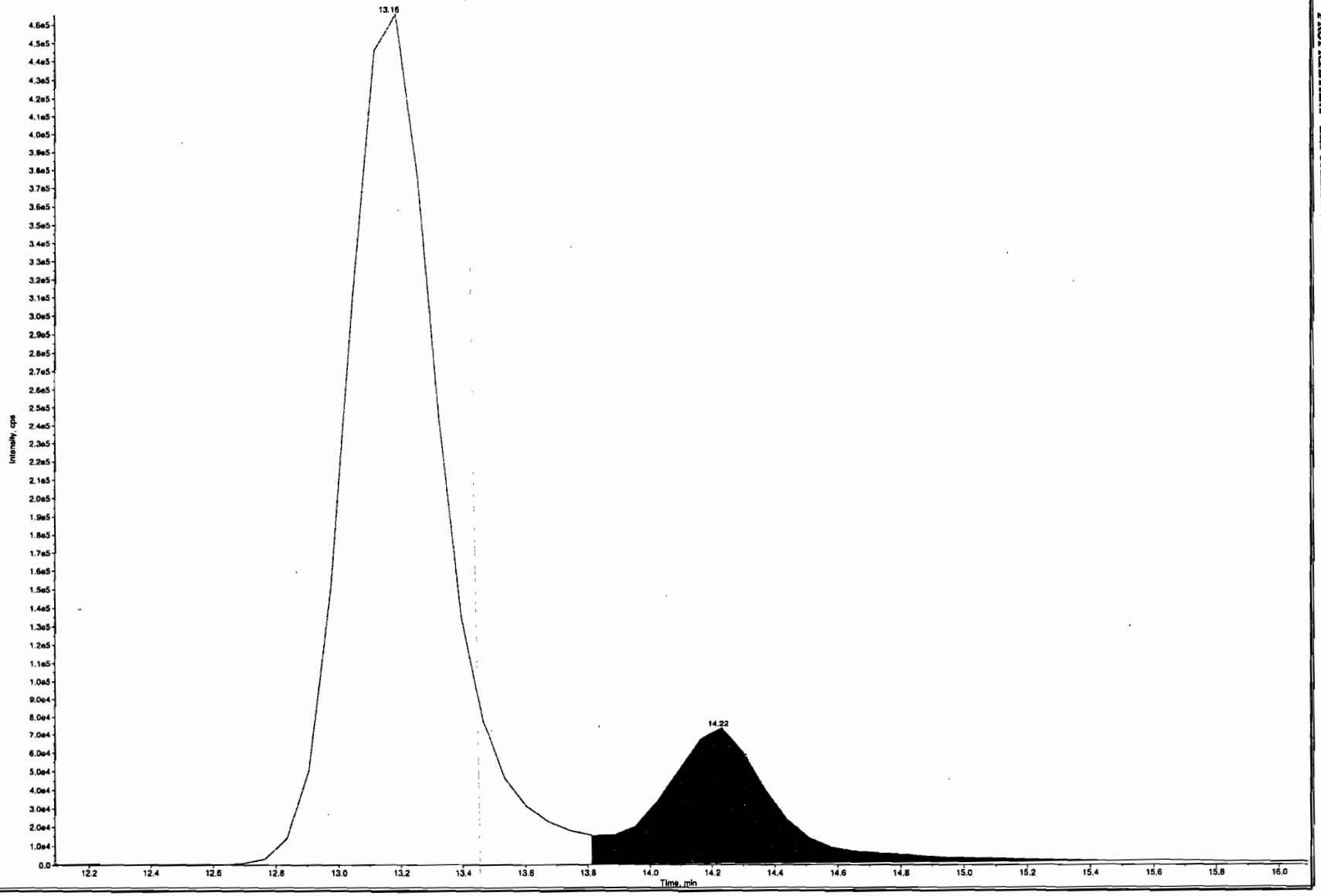
after Lan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415023.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 593. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 7:18:20 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.2 min
Area: 1.84e+006 counts
Height: 7.29e+004 cps
Start Time: 13.8 min
End Time: 15.5 min



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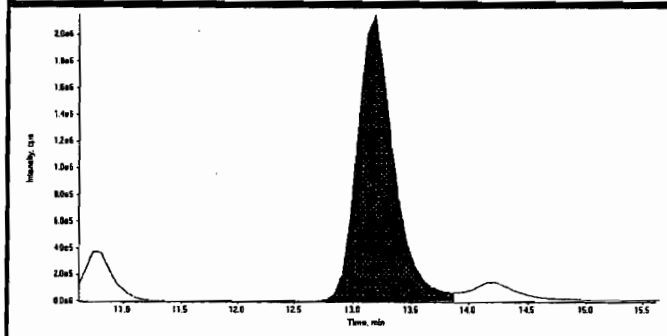
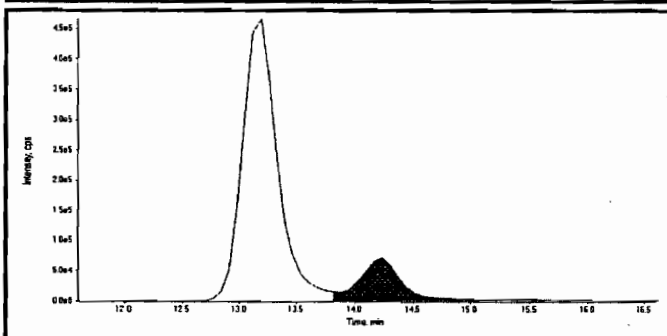
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

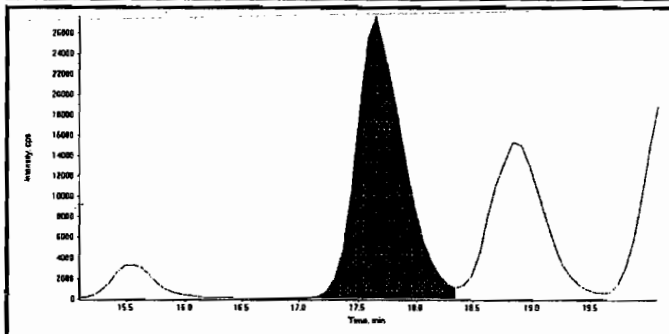
Data File	EXP0415023.wiff	**Acquisition Date**	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



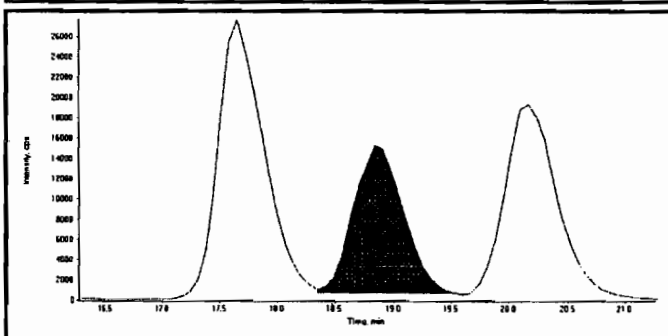
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	4.73e+007
Manual Modification	No
Amount:	640. (ng/mL)
% Accuracy:	107.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.84e+006
Manual Modification	Yes
Amount:	593. (ng/mL)
% Accuracy:	98.80



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	7.76e+005
Manual Modification	No
Amount:	592. (ng/mL)
% Accuracy:	98.70



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	4.42e+005
Manual Modification	No
Amount:	629. (ng/mL)
% Accuracy:	105.00

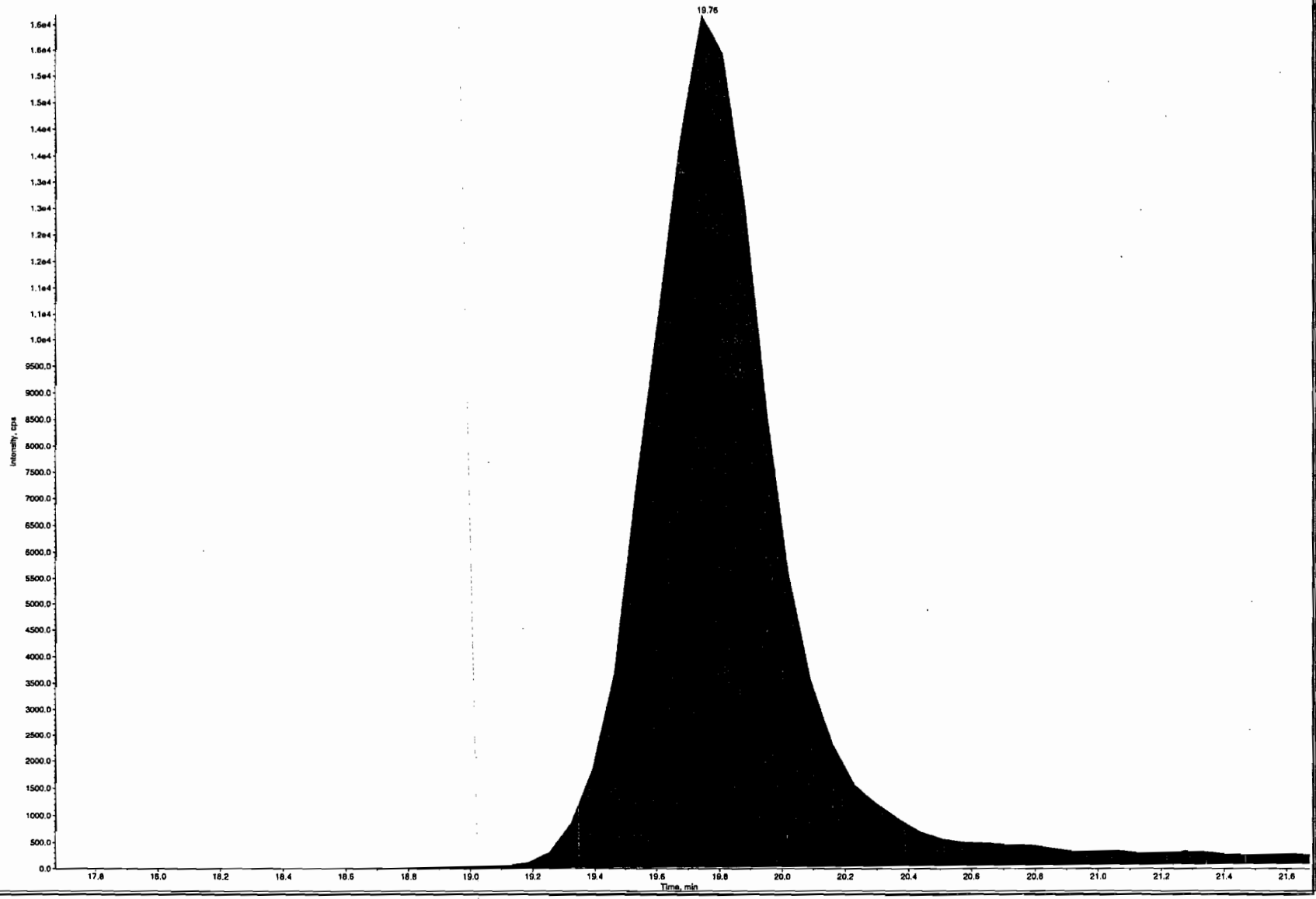
Before Scan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415023.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 695. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 7:38:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.7 min
Area: 4.69e+005 counts
Height: 1.61e+004 cps
Start Time: 19.0 min
End Time: 22.7 min



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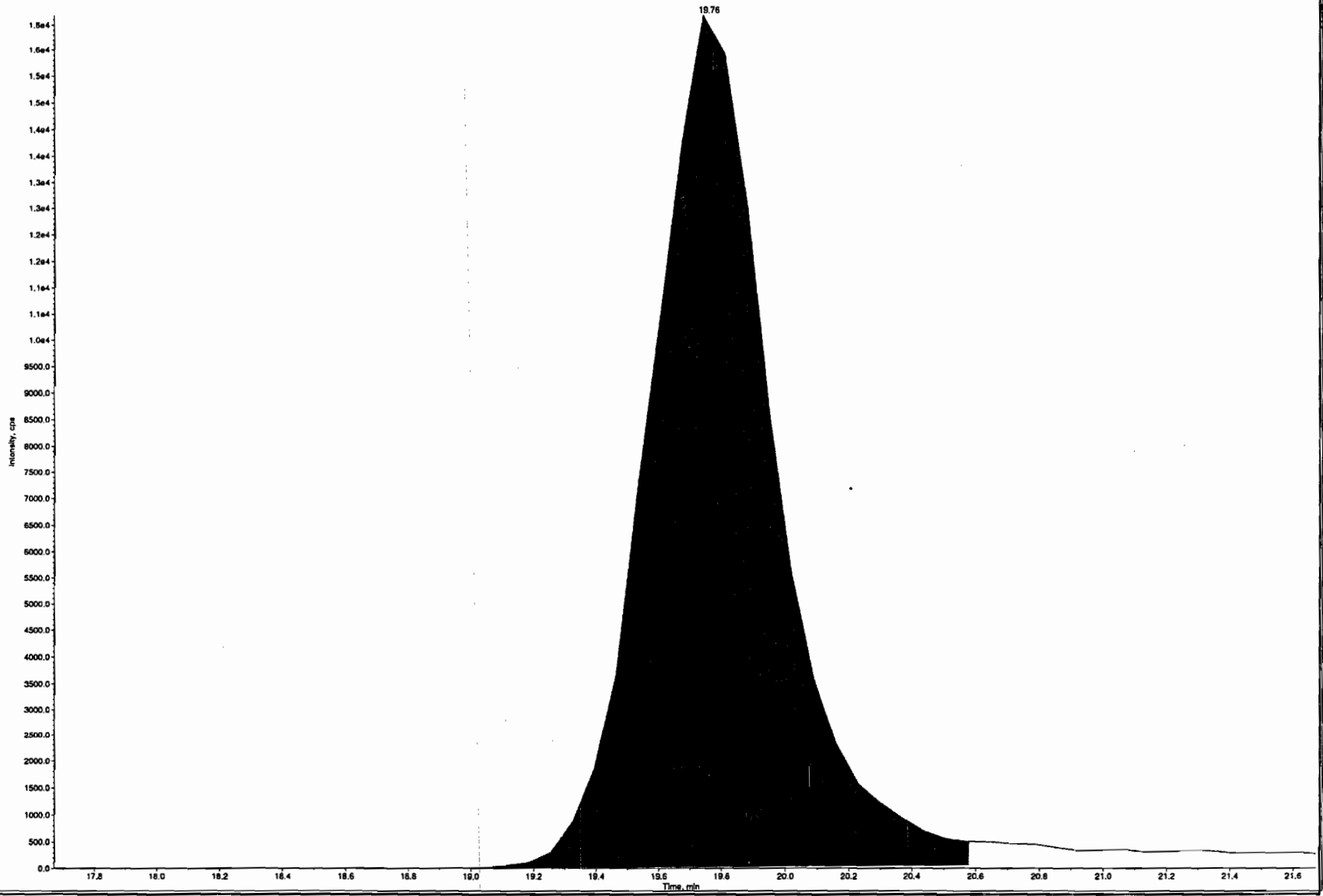
after Lun 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415023.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	663.	ng/mL
Acq. Date:	4/15/2010	
Acq. Time:	7:38:20 PM	
Modified:	Yes	
RT Window:	60.0	sec
Expected RT:	19.7	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	19.8	min
Area:	4.48e+005	counts
Height:	1.61e+004	cps
Start Time:	19.0	min
End Time:	20.6	min



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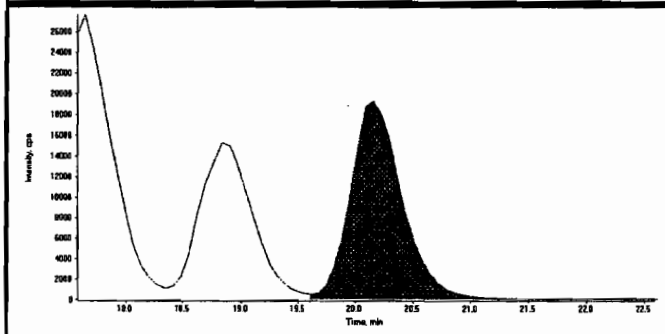
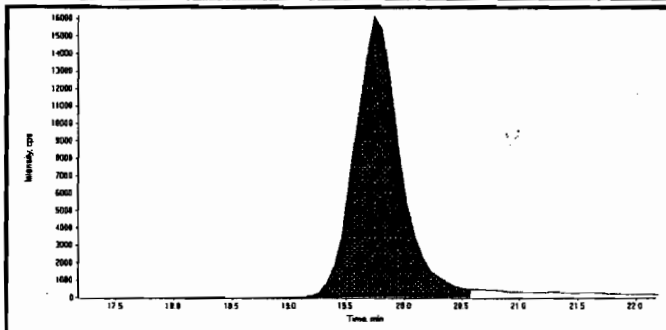
Data File	EXP0415023.wiff	**Acquisition Date**	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	6.05e+005
Manual Modification	No
Amount:	613. (ng/mL)
% Accuracy:	102.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	4.48e+005
Manual Modification	Yes
Amount:	663. (ng/mL)
% Accuracy:	111.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/15/10
Time of Injection 1938
Standard Number WXX100415-56CCV
Data File EXP0415023a

HMX	86.7
RDX	105.0
135-Trinitrobenzene	87.4
13-Dinitrobenzene	90.6
Tetryl	88.2
246-Trinitrotoluene	90.8
Nitrobenzene	100.0
34-dinitrotoluene	97.1
26-dinitrotoluene	95.0
24-dinitrotoluene	95.0
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	98.8
2-Nitrotoluene	98.7
4-Nitrotoluene	105.0
3-Nitrotoluene	102.0
PETN	111.0
TOTAL	1558.3
AVERAGE	97.4

Hm 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Jar 4/22/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415025.wiff

Analysis Date: 15-APR-10 20:30

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	38.5	96	
2,4,6-Trinitrotoluene	40	37.9	95	
2,4-Dinitrotoluene	40	34.4	86	
2,6-Dinitrotoluene	40	29.9	75	
2-Amino-4,6-dinitrotoluene	40	36.5	91	
3,4-Dinitrotoluene	20	16.9	85	
4-Amino-2,6-dinitrotoluene	40	38.1	95	
HMX	40	41.3	103	
Nitrobenzene	40	44.6	112	
PETN	40	36	90	
RDX	40	41.4	104	
Tetryl	40	38.9	97	
m-Dinitrobenzene	40	41.3	103	
m-Nitrotoluene	40	38.5	96	
o-Nitrotoluene	40	44.9	112	
p-Nitrotoluene	40	45.7	114	

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

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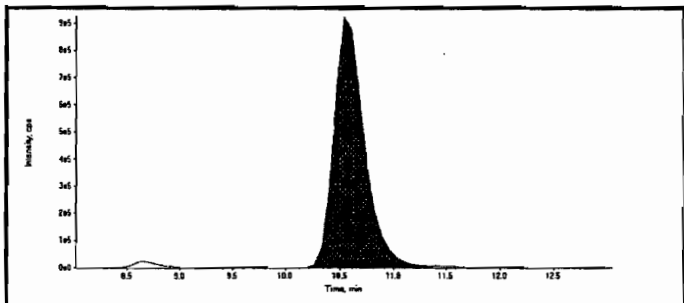
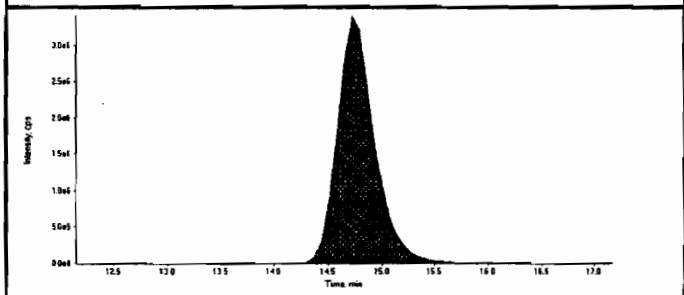
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

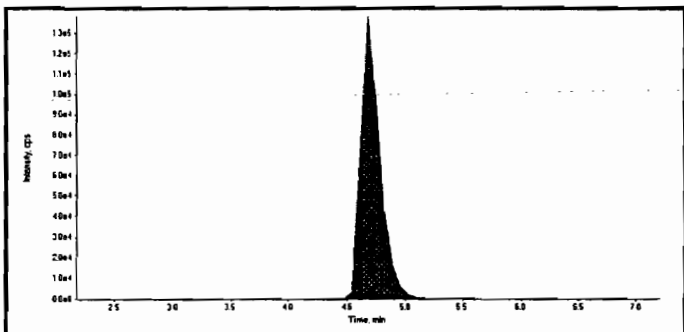
Data File	EXP0415025.wiff	**Acquisition Date**	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



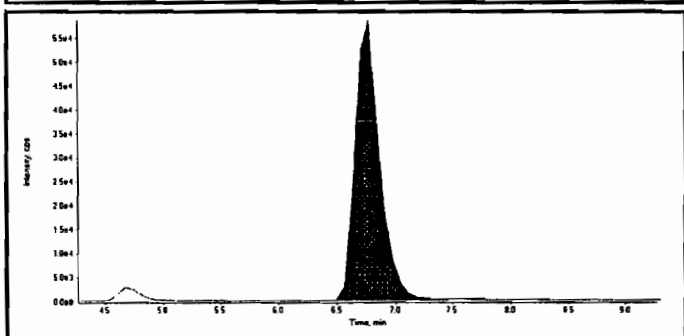
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	82600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.61e+006
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.72e+005
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	104.00

HMW 04/23/10

Lcm 4/27/10

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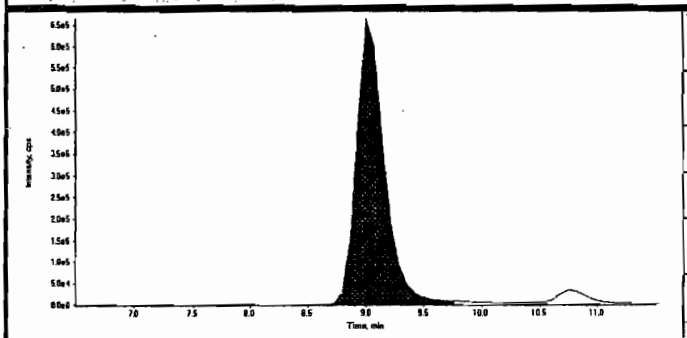
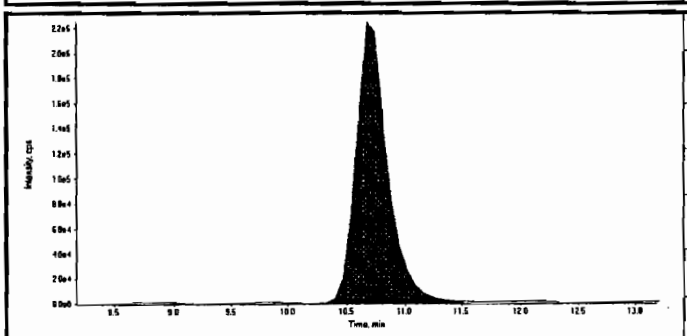
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

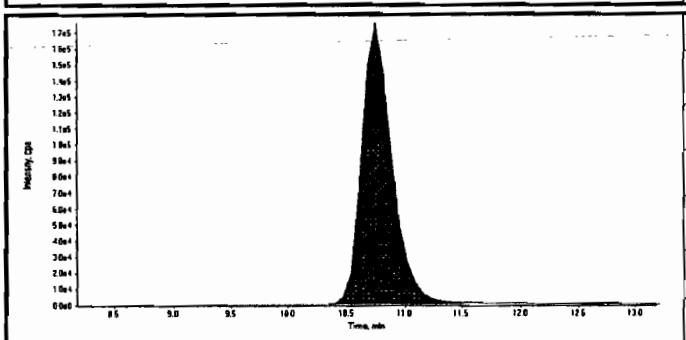
Data File	EXP0415025.wiff	**Acquisition Date**	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



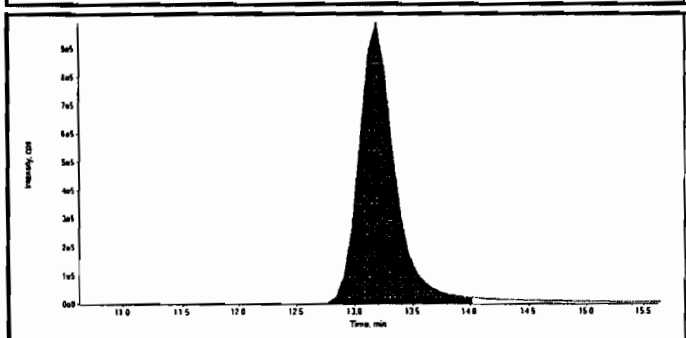
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.14e+007
Manual Modification	No
Amount:	38.5 (ng/mL)
% Accuracy:	96.20



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.32e+006
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.25e+006
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.30



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.15e+007
Manual Modification	No
Amount:	37.9 (ng/mL)
% Accuracy:	94.70

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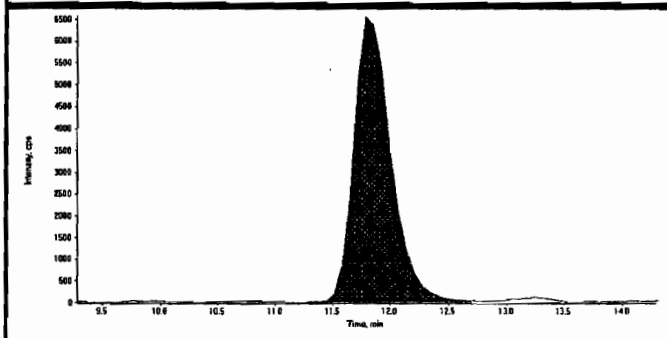
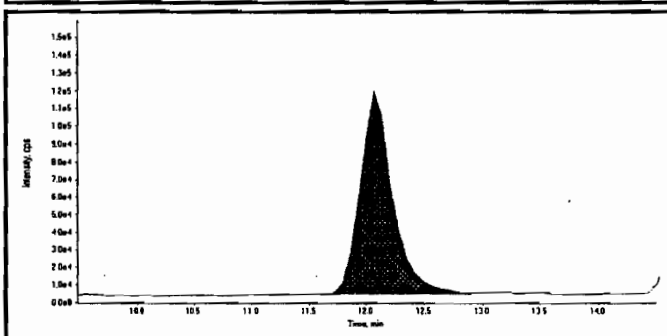
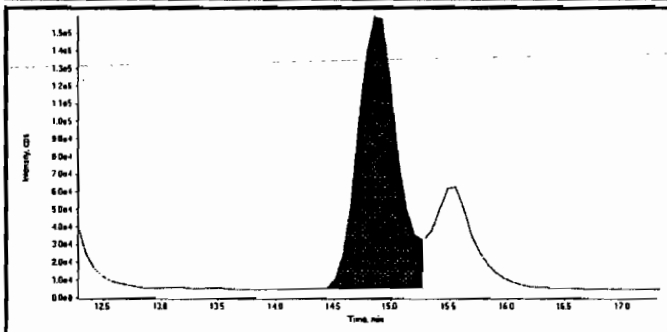
Data File	EXP0415025.wiff	**Acquisition Date**	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



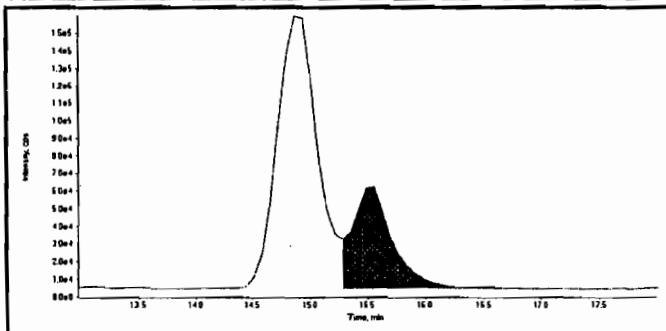
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	1.49e+005
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.31e+006
Manual Modification	No
Amount:	16.9 (ng/mL)
% Accuracy:	84.50



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.79e+006
Manual Modification	No
Amount:	29.9 (ng/mL)
% Accuracy:	74.60



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.51e+006
Manual Modification	No
Amount:	34.4 (ng/mL)
% Accuracy:	86.10

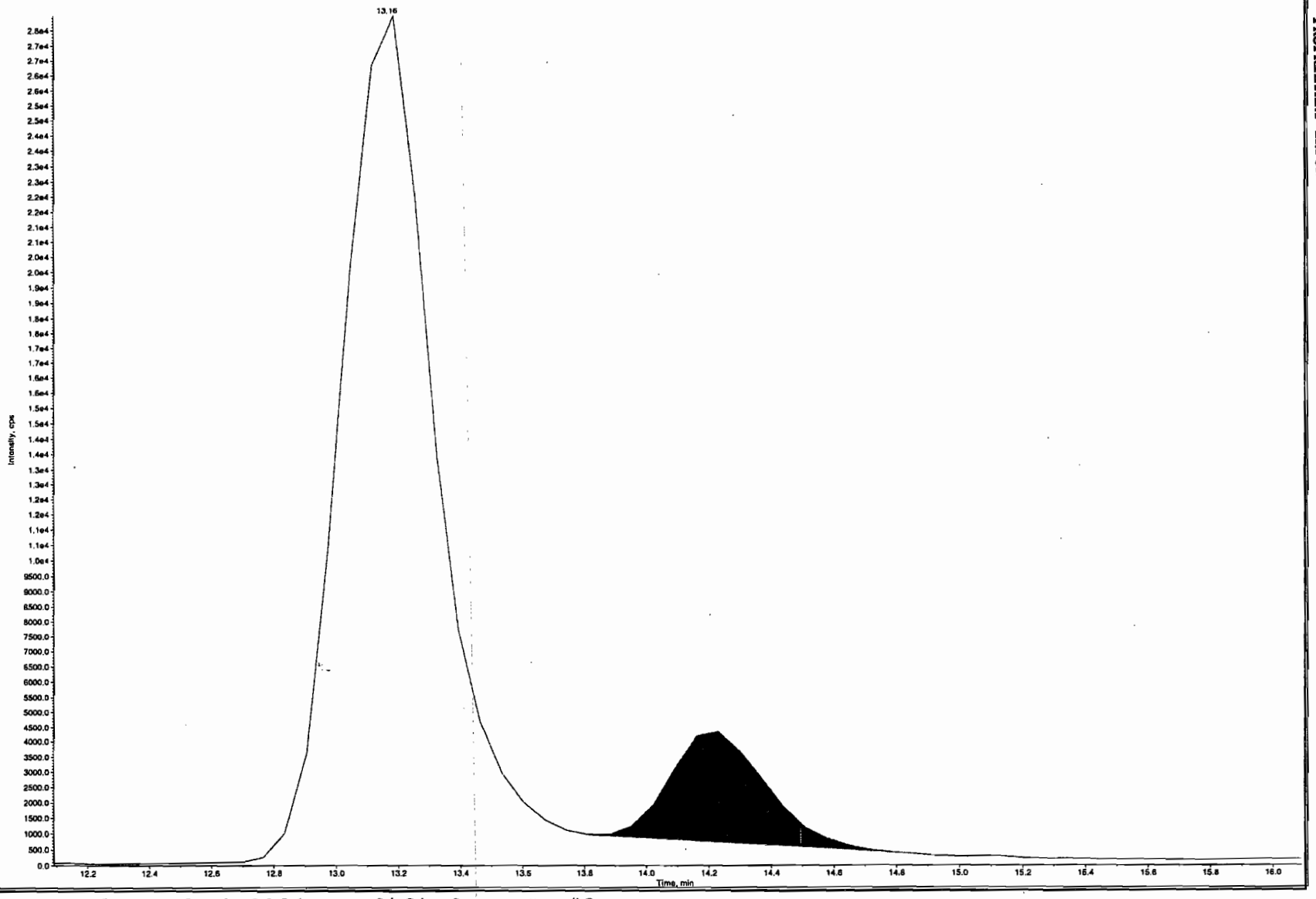
Before Dan 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415025.wif"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 40.0 ng/mL
Calculated Conc: 24.7 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 8:30:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 7.62e+004 counts
Height: 3.58e+003 cps
Start Time: 13.8 min
End Time: 14.8 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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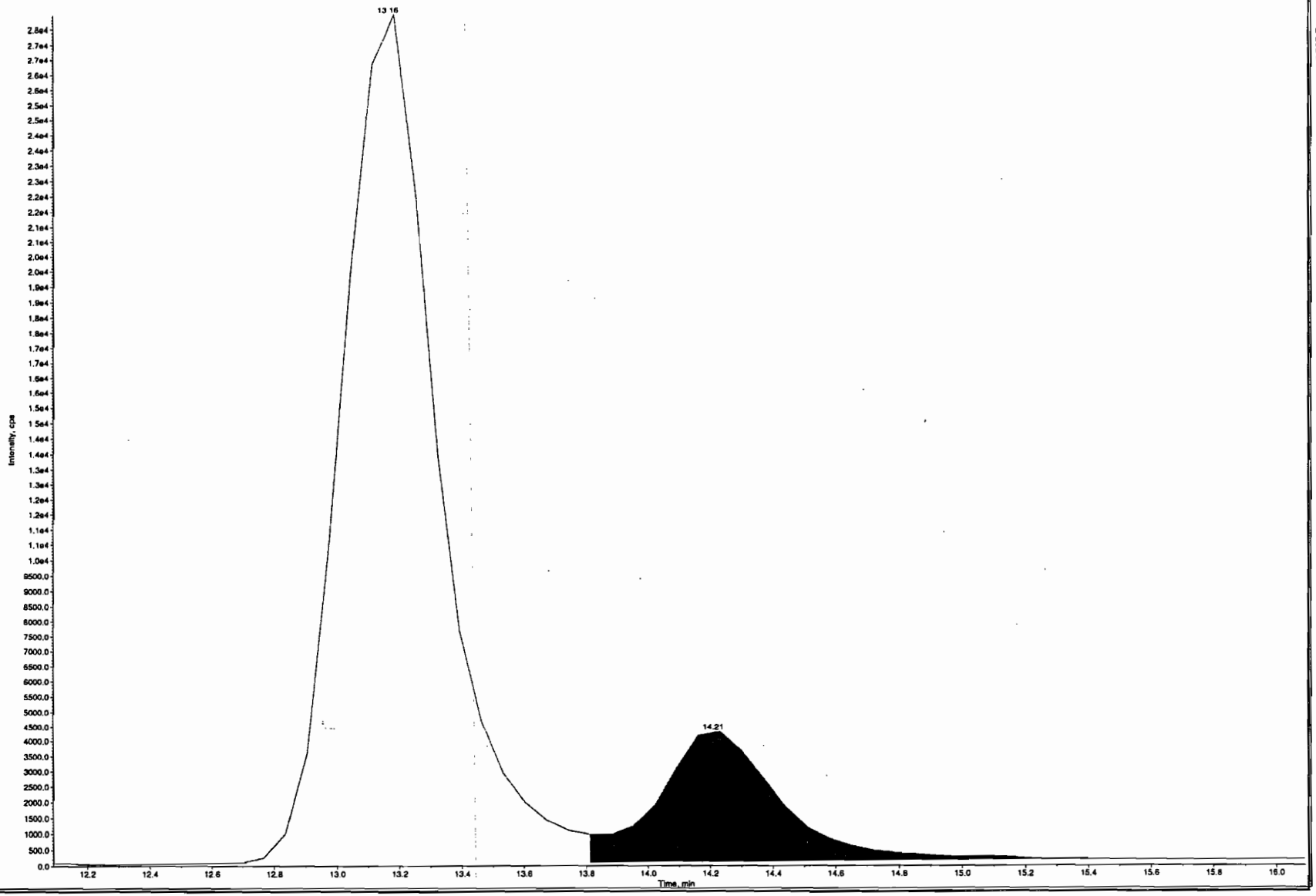
after Ran 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415025.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: CC
Concentration: 40.0 ng/mL
Calculated Conc: 36.5 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 8:30:11 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.2 min
Area: 1.13e+005 counts
Height: 4.23e+003 cps
Start Time: 13.8 min
End Time: 15.3 min



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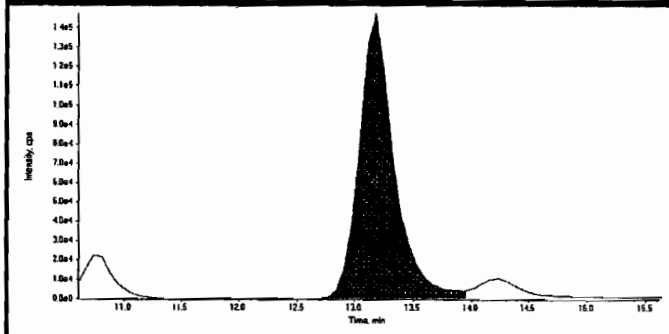
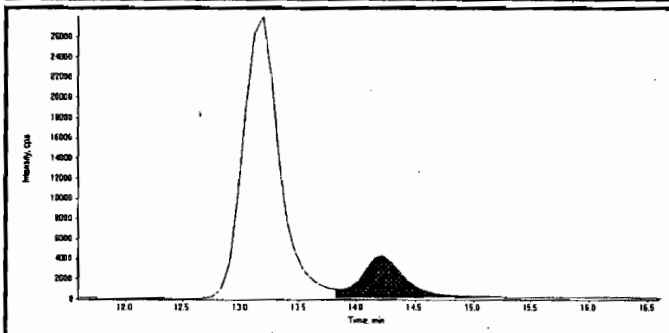
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

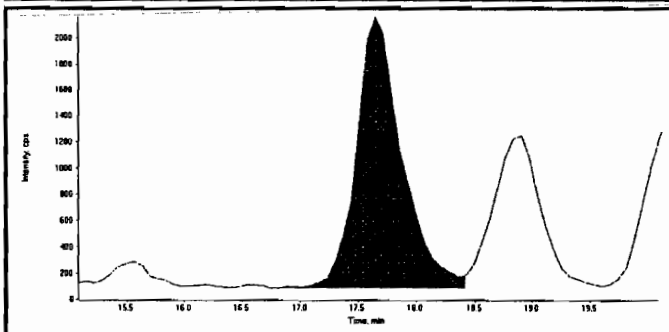
Data File	EXP0415025.wiff	**Acquisition Date**	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



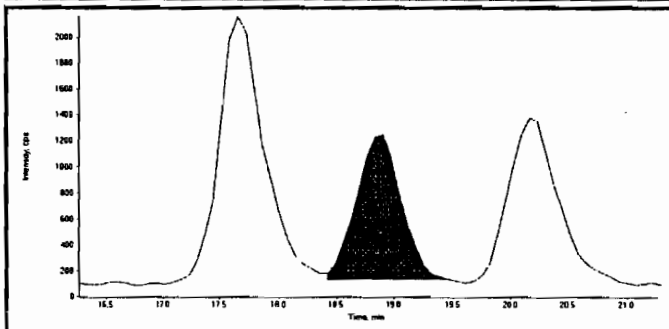
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	3.10e+006
Manual Modification	No
Amount:	38.1 (ng/mL)
% Accuracy:	95.20



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.13e+005
Manual Modification	Yes
Amount:	36.5 (ng/mL)
% Accuracy:	91.30



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	5.72e+004
Manual Modification	No
Amount:	44.9 (ng/mL)
% Accuracy:	112.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.9
Area Counts:	3.08e+004
Manual Modification	No
Amount:	45.7 (ng/mL)
% Accuracy:	114.00

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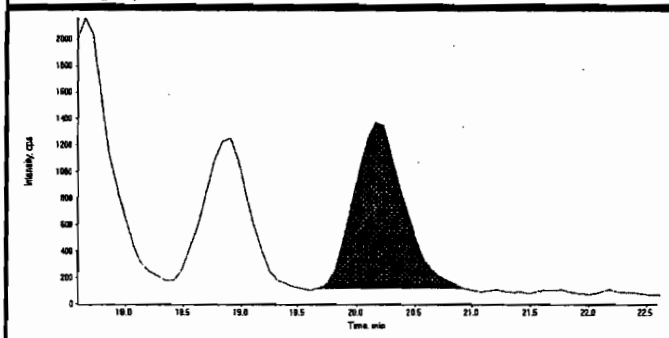
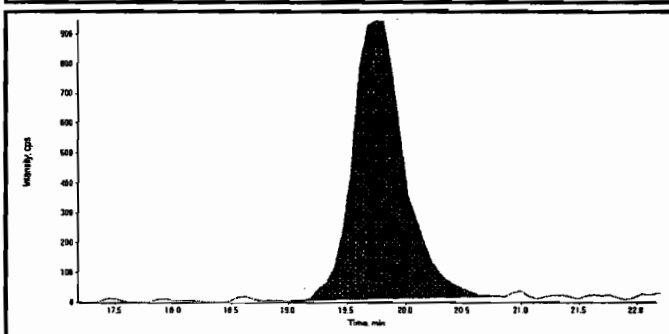
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415025.wiff	**Acquisition Date**	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	3.76e+004
Manual Modification	No
Amount:	38.5 (ng/mL)
% Accuracy:	96.30



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	2.91e+004
Manual Modification	No
Amount:	36.0 (ng/mL)
% Accuracy:	90.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/15/10
Time of Injection 2030
Standard Number WXX100415-57CRI
Data File EXP0415025a

HMX	103.0
RDX	104.0
135-Trinitrobenzene	96.2
13-Dinitrobenzene	103.0
Tetryl	97.3
246-Trinitrotoluene	94.7
Nitrobenzene	112.0
34-dinitrotoluene	84.5
26-dinitrotoluene	74.6
24-dinitrotoluene	86.1
4-Amino-26-dinitrotoluene	95.2
2-Amino-46-dinitrotoluene	91.3
2-Nitrotoluene	112.0
4-Nitrotoluene	114.0
3-Nitrotoluene	96.3
PETN	90.0
TOTAL	1554.2
AVERAGE	97.1

Hmm 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/22/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415030.wiff

Analysis Date: 15-APR-10 22:39

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	635	106	
2,4,6-Trinitrotoluene	600	620	103	
2,4-Dinitrotoluene	600	631	105	
2,6-Dinitrotoluene	600	558	93	
2-Amino-4,6-dinitrotoluene	600	607	101	
3,4-Dinitrotoluene	300	289	96	
4-Amino-2,6-dinitrotoluene	600	660	110	
HMX	600	563	94	
Nitrobenzene	600	623	104	
PETN	600	708	118	
RDX	600	672	112	
Tetryl	600	647	108	
m-Dinitrobenzene	600	618	103	
m-Nitrotoluene	600	545	91	
o-Nitrotoluene	600	586	98	
p-Nitrotoluene	600	618	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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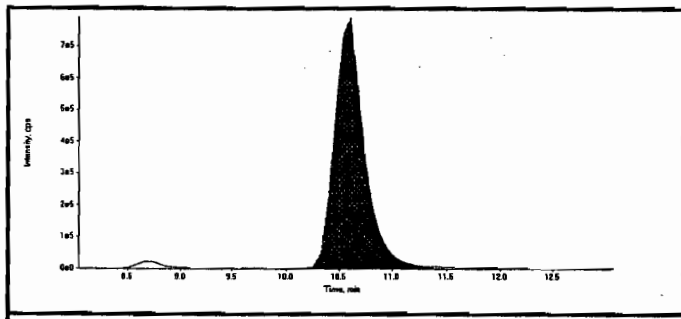
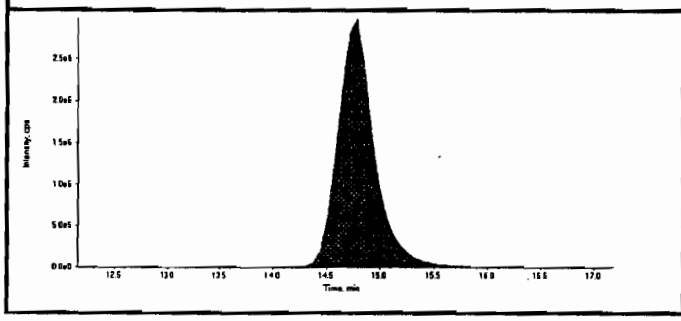
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

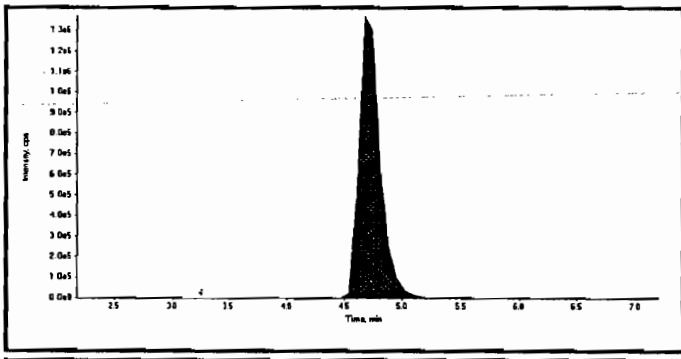
Data File	EXP0415030.wiff	**Acquisition Date**	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



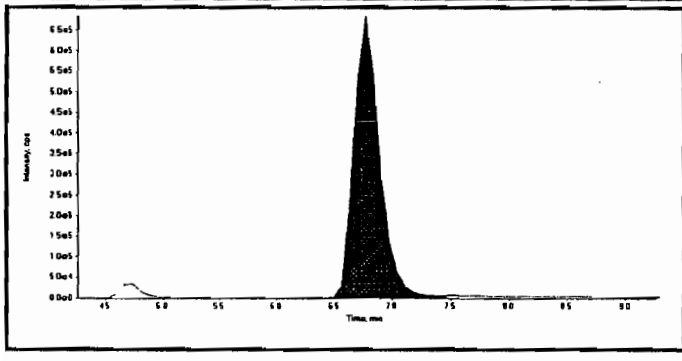
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	71300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.79e+007
Manual Modification	No
Amount:	563. (ng/mL)
% Accuracy:	93.80



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.08e+007
Manual Modification	No
Amount:	672. (ng/mL)
% Accuracy:	112.00

Hmw 04/23/10

Lcr 4/23/10

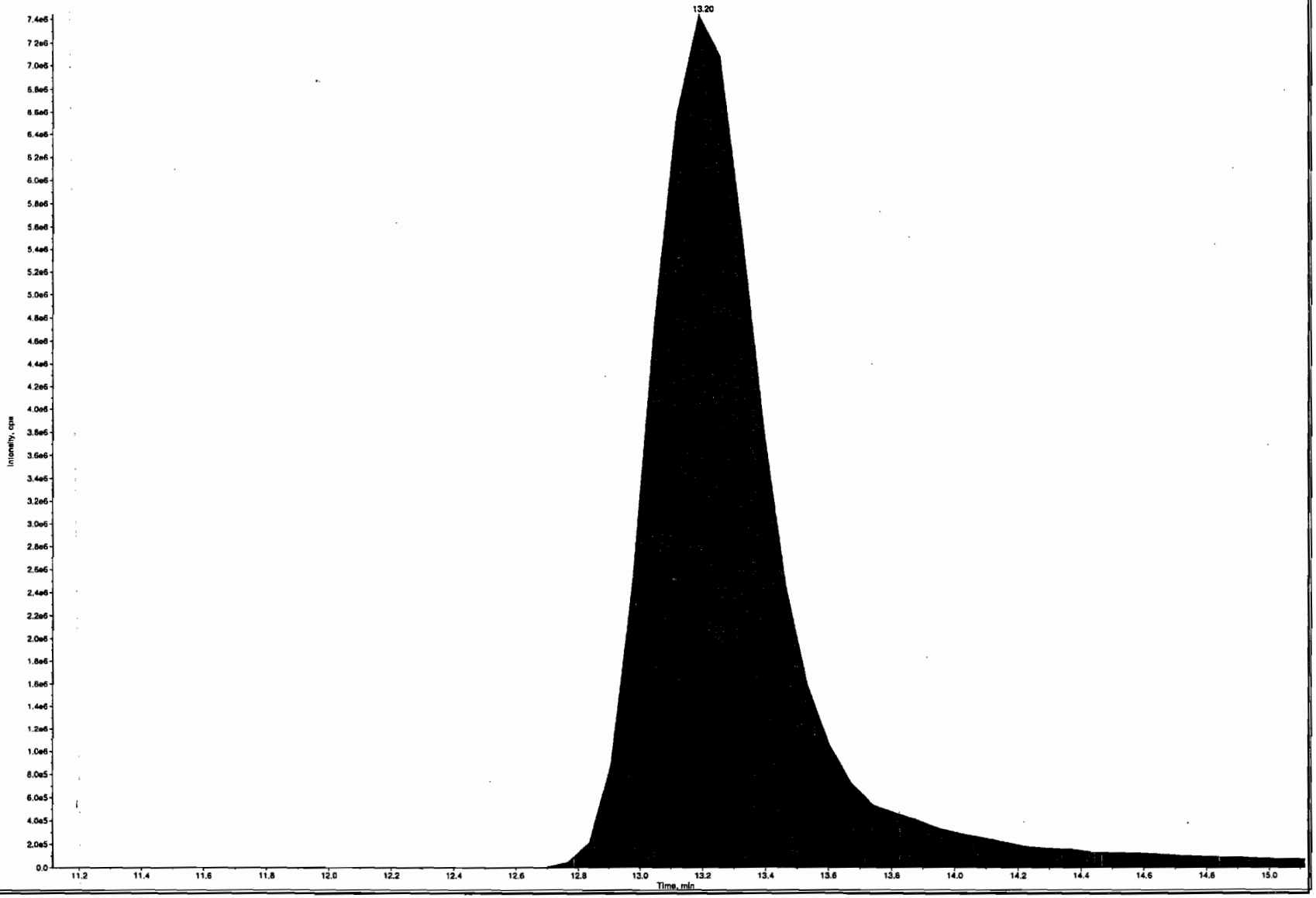
Before Ken 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 600. ng/mL
Calculated Conc: 707. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 10:19:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.2 min
Area: 2.09e+008 counts
Height: 7.45e+006 cps
Start Time: 12.5 min
End Time: 17.4 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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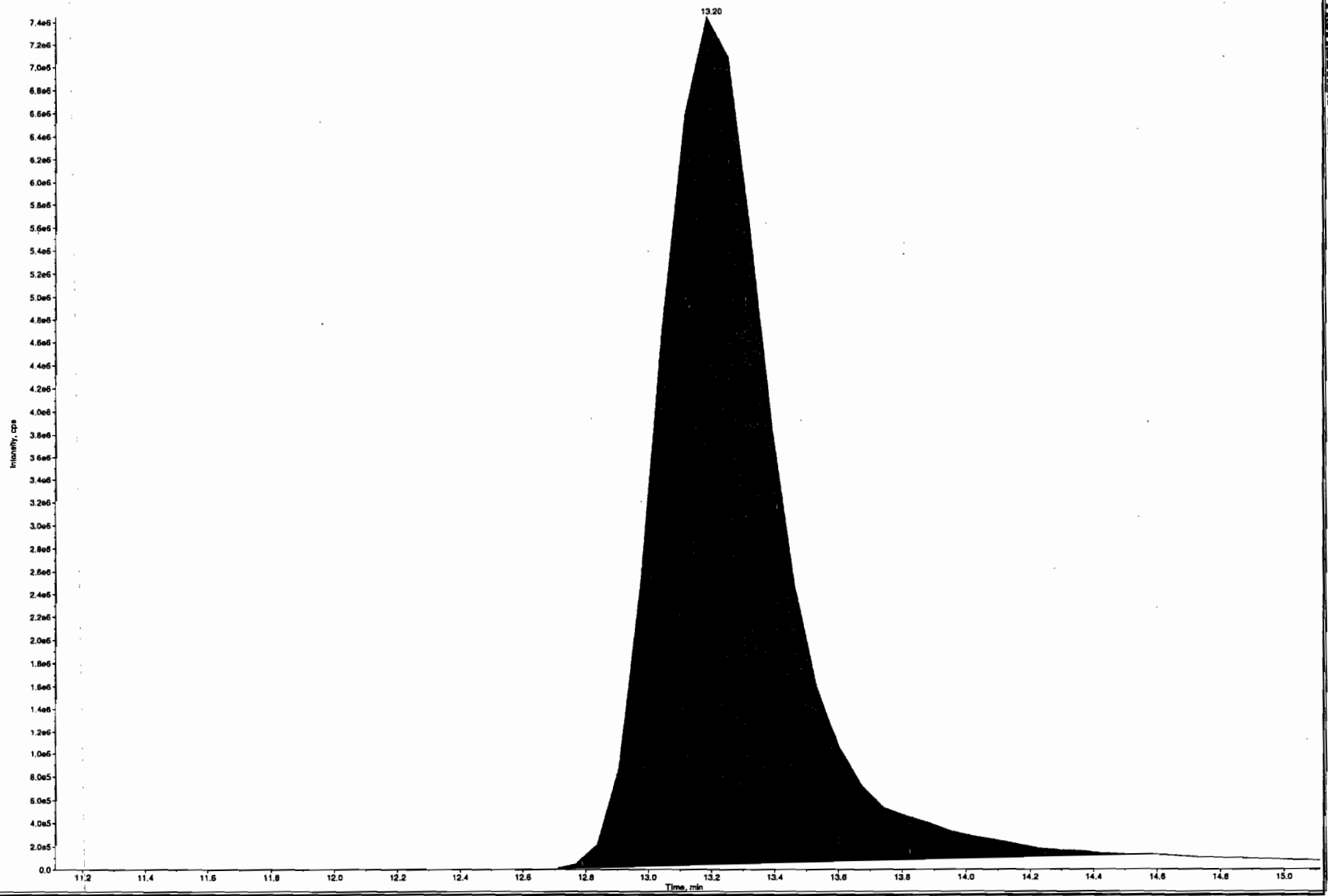
after scan 4/20/10

Sample Name: "WXX100415-S6CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1
Sample Type:	QC
Concentration:	600. ng/mL
Calculated Conc:	620. ng/mL
Acq. Date:	4/15/2010
Acq. Time:	10:39:38 PM
Modified:	Yes
RT Window:	30.0 sec
Expected RT:	11.1 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	13.2 min
Area:	1.93e+008 counts
Height:	7.43e+006 cps
Start Time:	12.6 min
End Time:	14.4 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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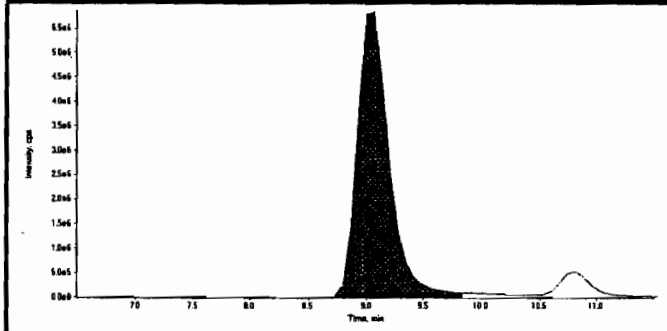
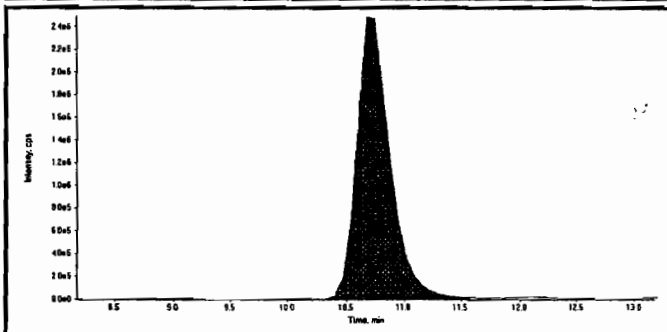
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

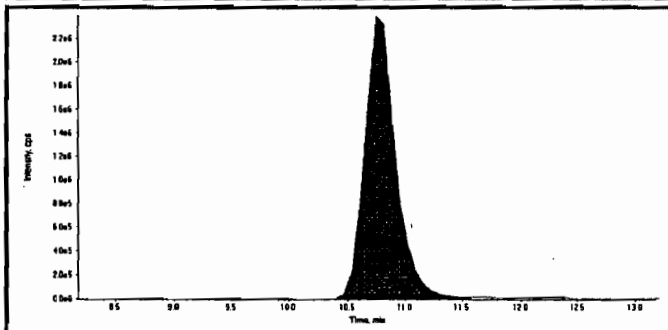
Data File	EXP0415030.wiff	**Acquisition Date**	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



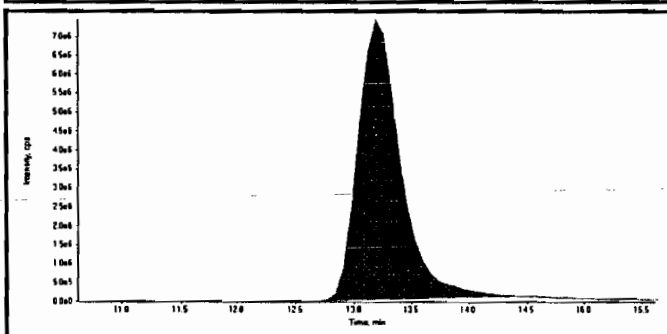
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.07
Area Counts:	1.16e+008
Manual Modification	No
Amount:	635. (ng/mL)
% Accuracy:	106.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	5.13e+007
Manual Modification	No
Amount:	618. (ng/mL)
% Accuracy:	103.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.60e+007
Manual Modification	No
Amount:	647. (ng/mL)
% Accuracy:	108.00

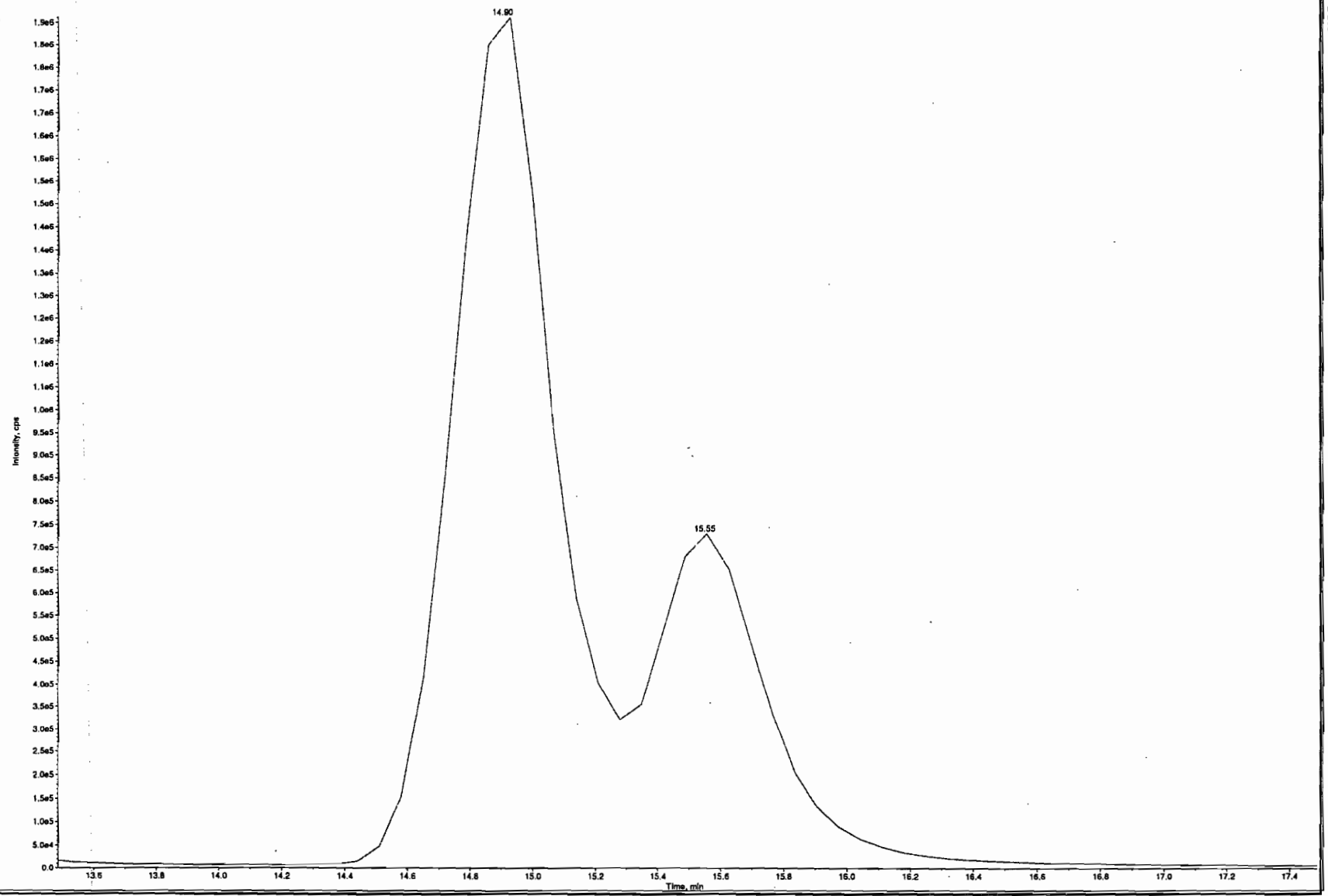


Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.93e+008
Manual Modification	Yes
Amount:	620. (ng/mL)
% Accuracy:	103.00

Before Run 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name. "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	4/15/2010	
Acq. Time:	10:39:38 PM	
Modified:	No	



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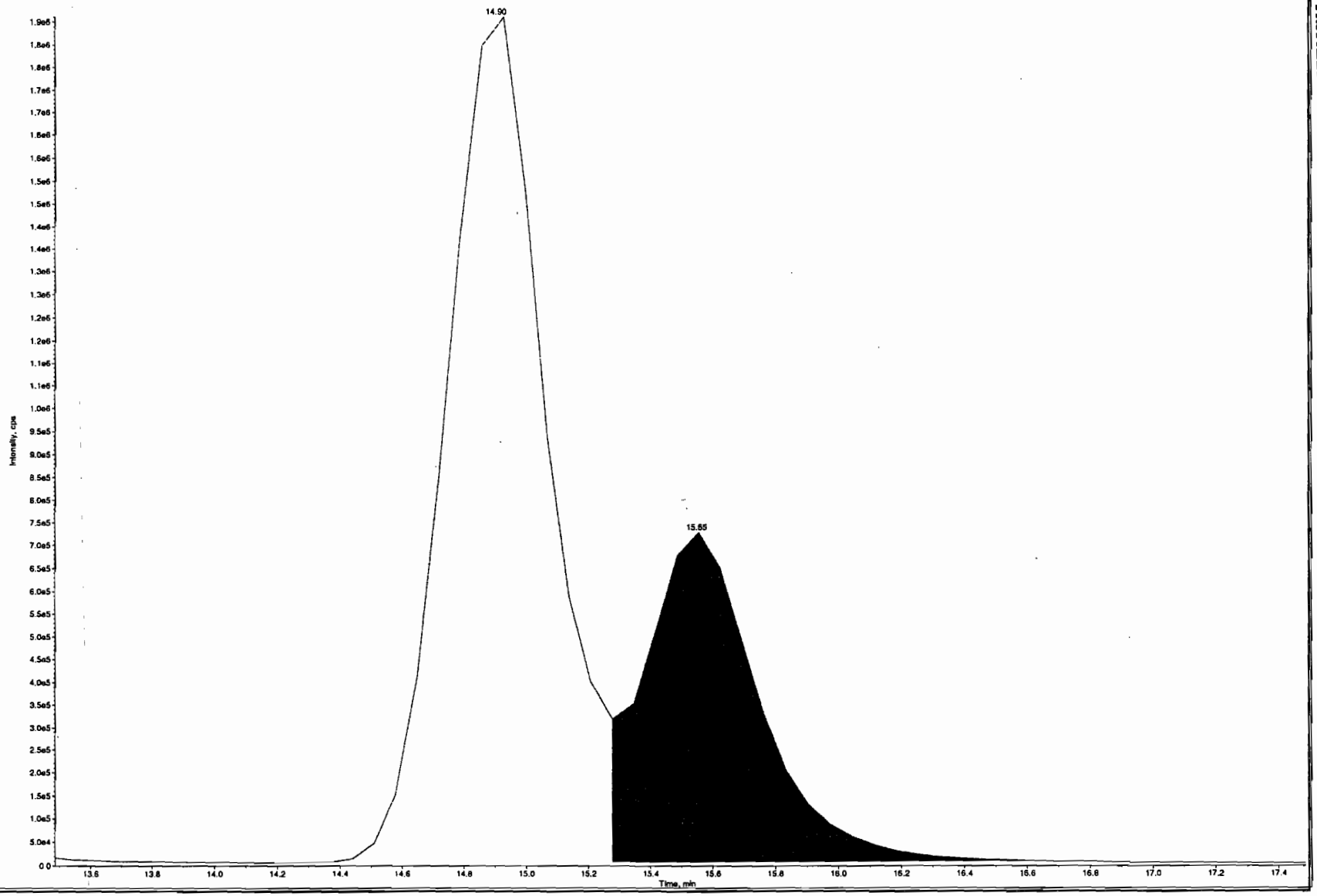
after Lan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 631. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 10:39:18 PM

Modified: Yes
RT Window: 10.0 sec
Expected RT: 15.5 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 15.5 min
Area: 1.84e+007 counts
Height: 7.21e+005 cps
Start Time: 15.3 min
End Time: 16.6 min



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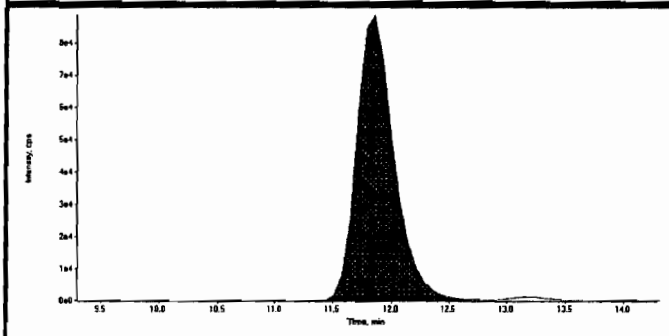
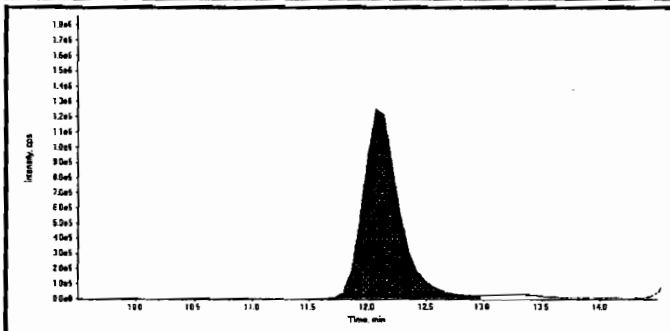
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

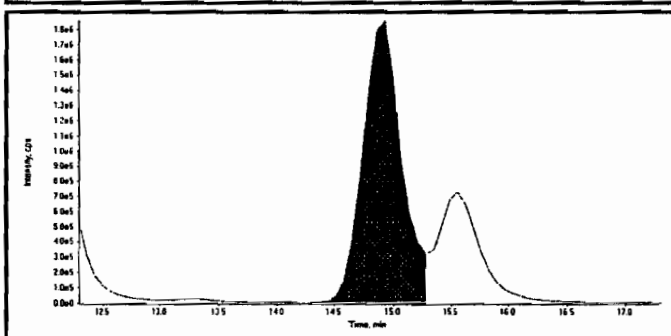
Data File	EXP0415030.wiff	**Acquisition Date**	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



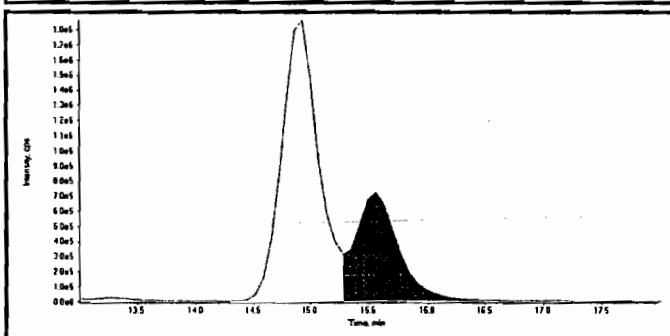
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.98e+006
Manual Modification	No
Amount:	623. (ng/mL)
% Accuracy:	104.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.70e+007
Manual Modification	No
Amount:	289. (ng/mL)
% Accuracy:	96.20



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	4.23e+007
Manual Modification	No
Amount:	558. (ng/mL)
% Accuracy:	93.00



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.84e+007
Manual Modification	Yes
Amount:	631. (ng/mL)
% Accuracy:	105.00

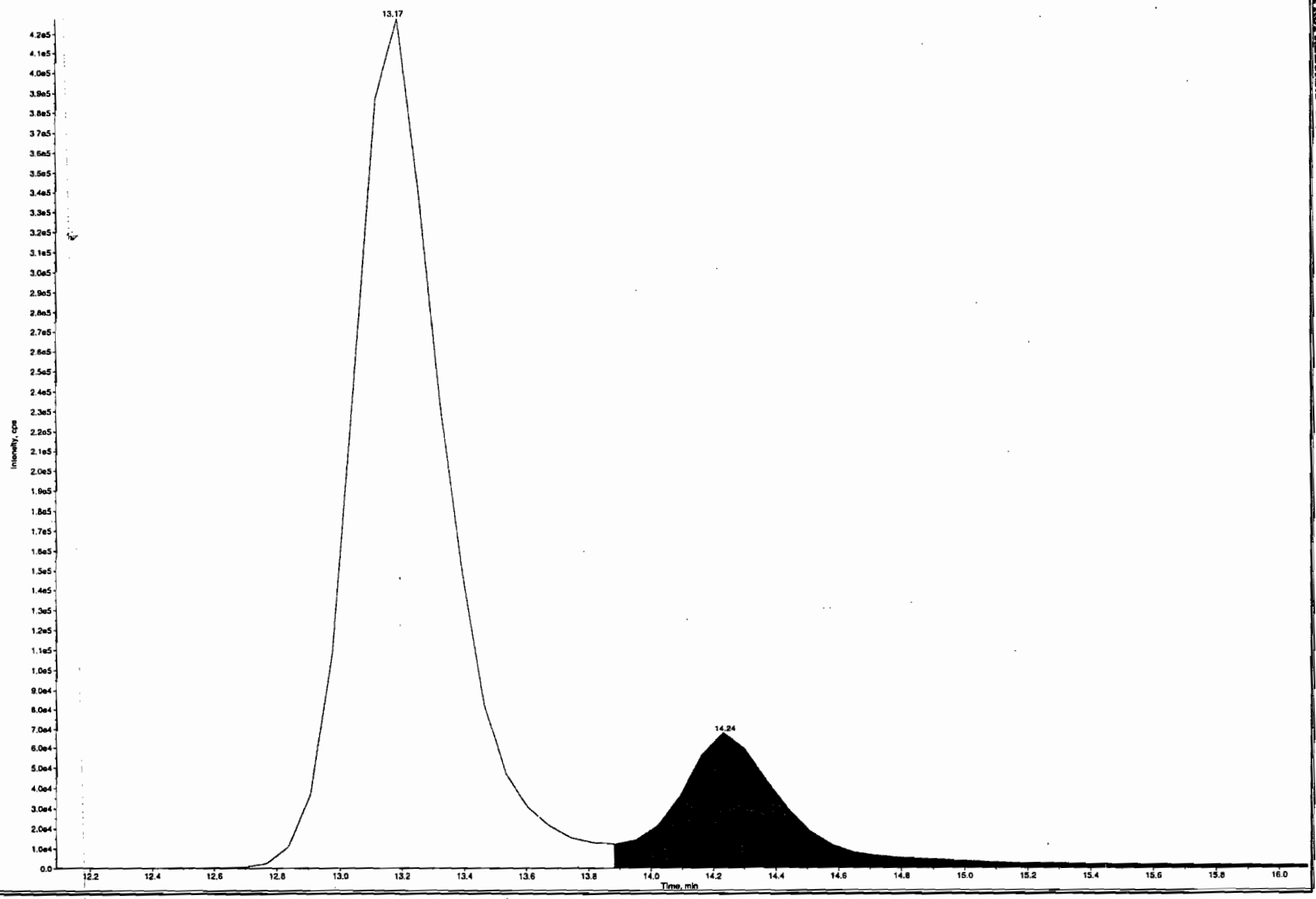
Before Scan 4/23/10

Sample Name: "WXX100415-S6CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 1020. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 10:39:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 2.73e+006 counts
Height: 7.52e+004 cps
Start Time: 11.9 min
End Time: 17.1 min



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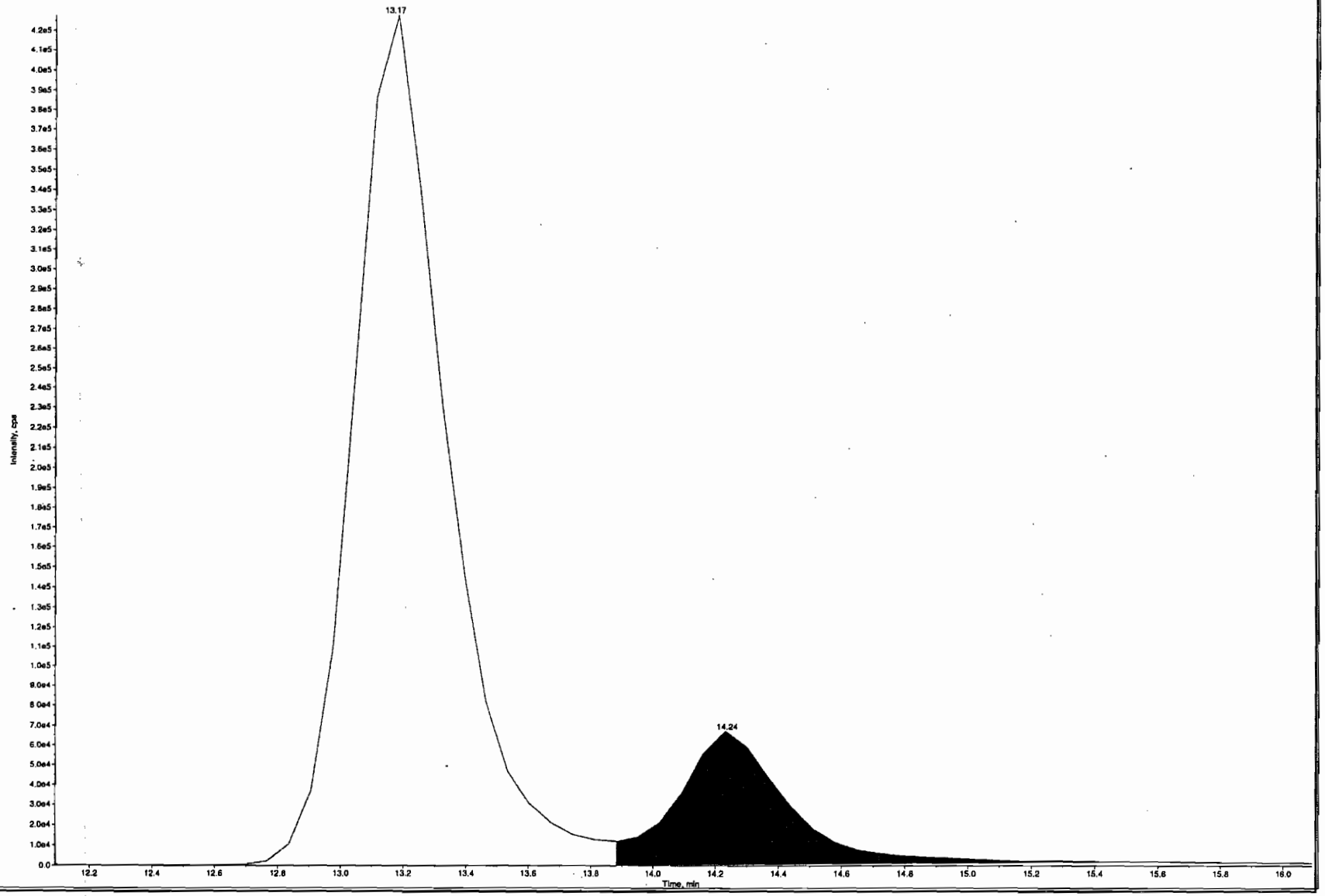
after scan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 607. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 10:39:38 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.2 min
Area: 1.62e+006 counts
Height: 6.64e+004 cps
Start Time: 13.9 min
End Time: 15.6 min



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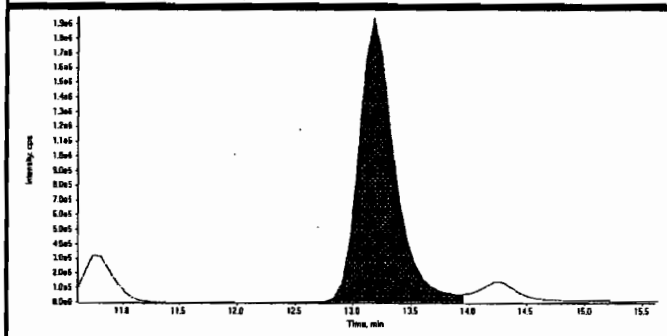
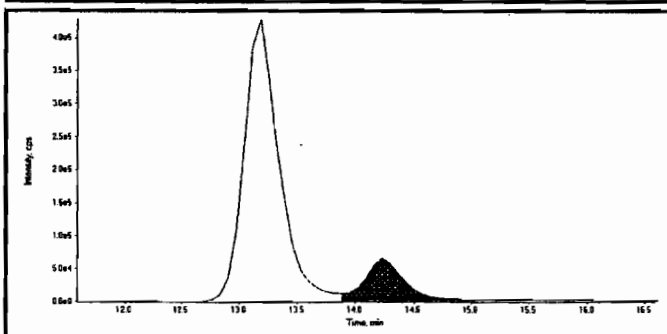
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

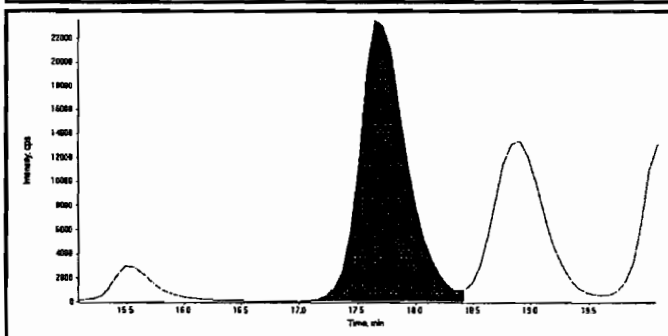
Data File	EXP0415030.wiff	**Acquisition Date**	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



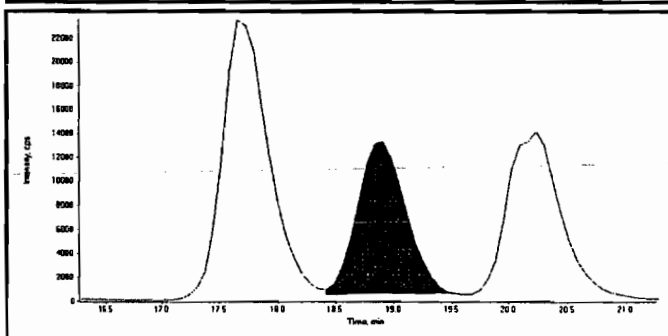
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	4.19e+007
Manual Modification	No
Amount:	660. (ng/mL)
% Accuracy:	110.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.62e+006
Manual Modification	Yes
Amount:	607. (ng/mL)
% Accuracy:	101.00



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	6.60e+005
Manual Modification	No
Amount:	586. (ng/mL)
% Accuracy:	97.60



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.9
Area Counts:	3.74e+005
Manual Modification	No
Amount:	618. (ng/mL)
% Accuracy:	103.00

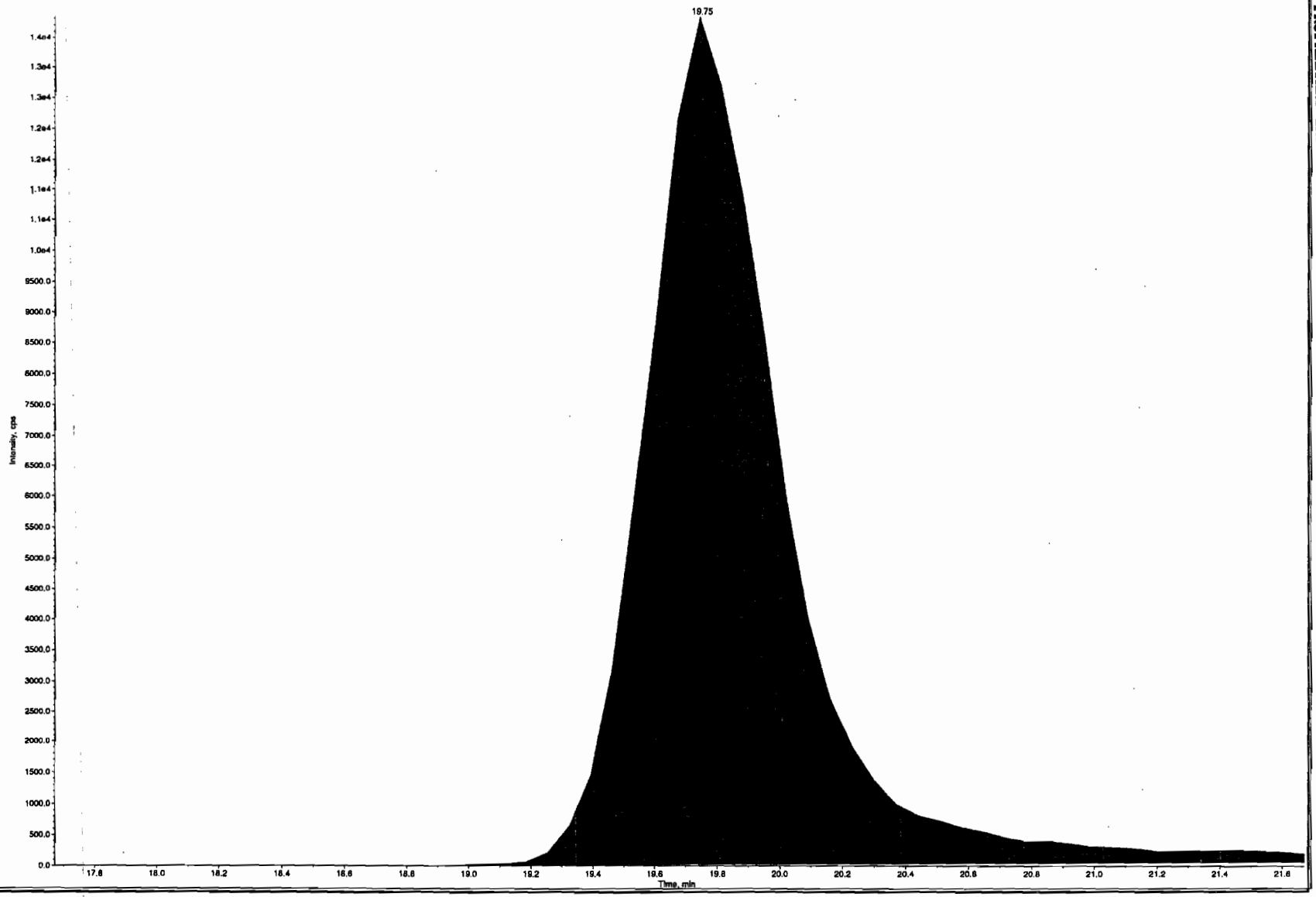
Before Dan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name: "PETN" Mass(es): "361.1/82.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 738. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 10:39:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.7 min
Area: 4.28e+005 counts
Height: 1.38e+004 cps
Start Time: 18.5 min
End Time: 22.7 min



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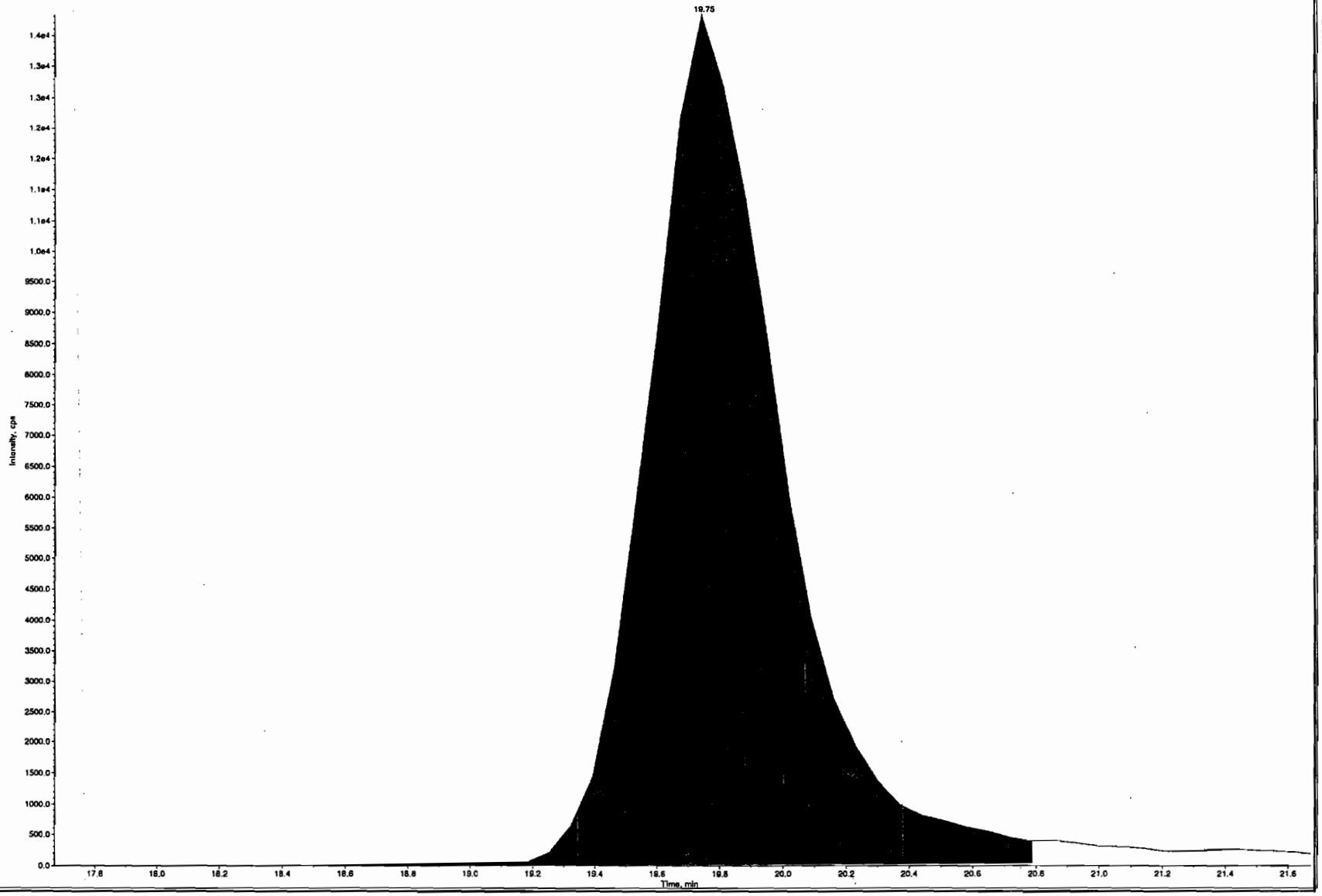
after Dan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415030.wiff"
Peak Name: "PETN" Mass(es): "381.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 708. ng/mL
Acq. Date: 4/15/2010
Acq. Time: 10:19:18 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 19.7 min
Area: 4.11e+005 counts
Height: 1.38e+004 cps
Start Time: 19.0 min
End Time: 20.8 min



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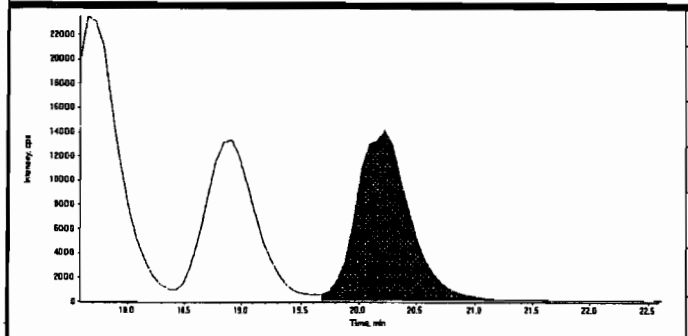
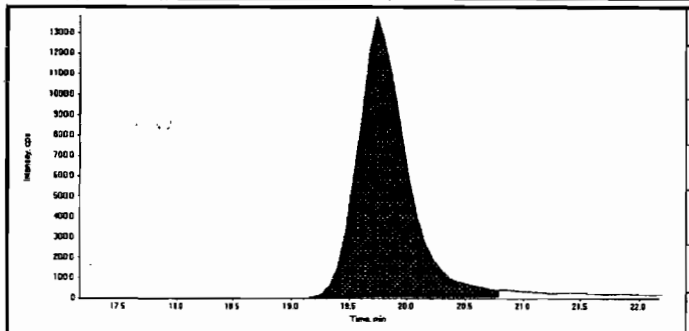
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415030.wiff	**Acquisition Date**	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	4.62e+005
Manual Modification	No
Amount:	545. (ng/mL)
% Accuracy:	90.90



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	4.11e+005
Manual Modification	Yes
Amount:	708. (ng/mL)
% Accuracy:	118.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/15/10
Time of Injection 2239
Standard Number WXX100415-56CCV
Data File EXP0415030a

HMX	93.8
RDX	112.0
135-Trinitrobenzene	106.0
13-Dinitrobenzene	103.0
Tetryl	108.0
246-Trinitrotoluene	103.0
Nitrobenzene	104.0
34-dinitrotoluene	96.2
26-dinitrotoluene	93.0
24-dinitrotoluene	105.0
4-Amino-26-dinitrotoluene	110.0
2-Amino-46-dinitrotoluene	101.0
2-Nitrotoluene	97.6
4-Nitrotoluene	103.0
3-Nitrotoluene	90.9
PETN	118.0
TOTAL	1644.5
AVERAGE	102.8

Hnm 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/23/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415032.wiff

Analysis Date: 15–APR–10 23:31

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	40	100	
2,4,6–Trinitrotoluene	40	40.3	101	
2,4–Dinitrotoluene	40	28.6	72	
2,6–Dinitrotoluene	40	33.6	84	
2–Amino–4,6–dinitrotoluene	40	37.9	95	
3,4–Dinitrotoluene	20	17.2	86	
4–Amino–2,6–dinitrotoluene	40	42.6	107	
HMX	40	48.3	121	
Nitrobenzene	40	47.8	119	
PETN	40	46.6	116	
RDX	40	41.6	104	
Tetryl	40	41	103	
m–Dinitrobenzene	40	43.7	109	
m–Nitrotoluene	40	44.7	112	
o–Nitrotoluene	40	44.7	112	
p–Nitrotoluene	40	46.3	116	

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

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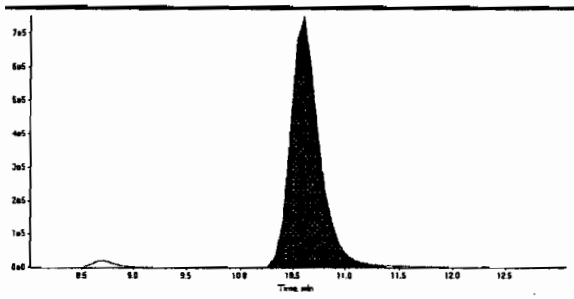
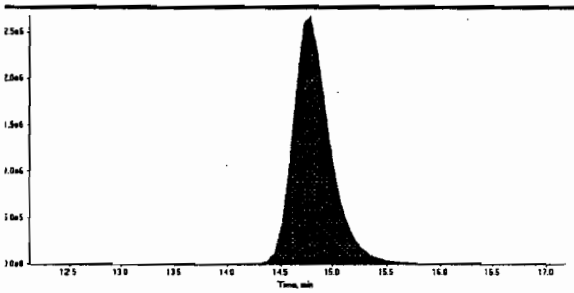
:L SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

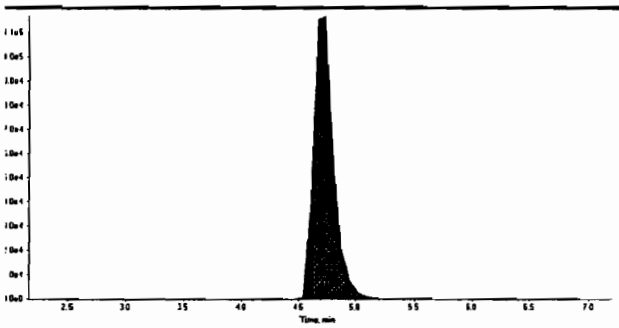
ta File	EXP0415032.wiff	Acquisition Date	4/15/2010 11:31:31 PM
mple Name	WXX100415-57CRI	Acquisition Method	8321.dam
tch|Dilution|Analyst	|1|LER	Result Table	041510.rdb
ocedure Code	LCMSEXP_C	Sample Type	Quality Control



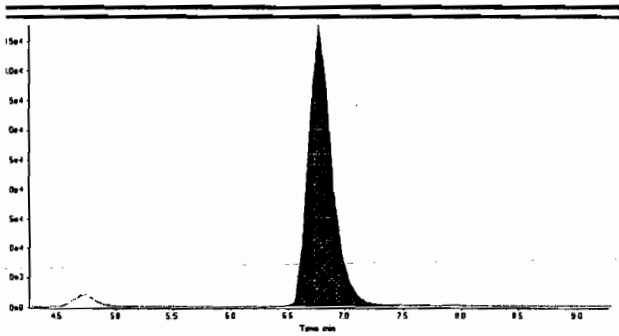
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.50e+006
Manual Modification	No
Amount:	48.3 (ng/mL)
% Accuracy:	121.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.00e+005
Manual Modification	No
Amount:	41.6 (ng/mL)
% Accuracy:	104.00

dhme 04/23/10

Lcs 4/23/10

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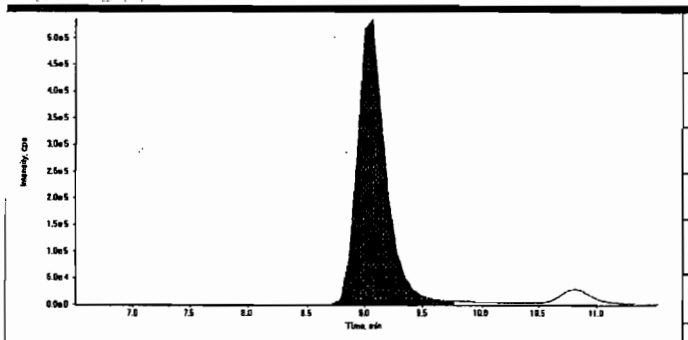
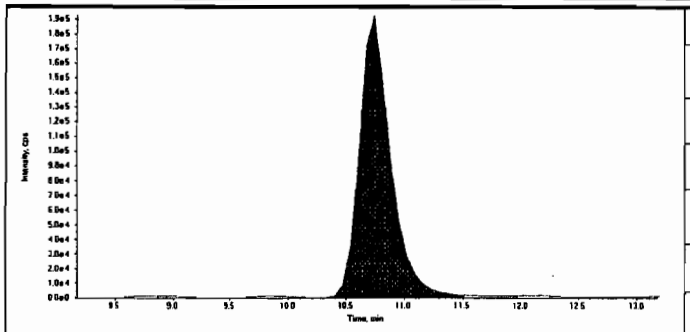
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

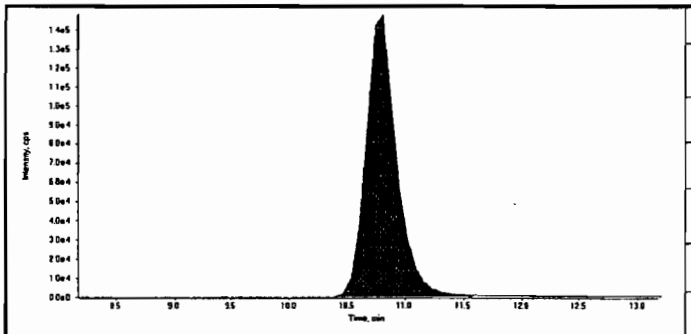
Data File	EXP0415032.wiff	**Acquisition Date**	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



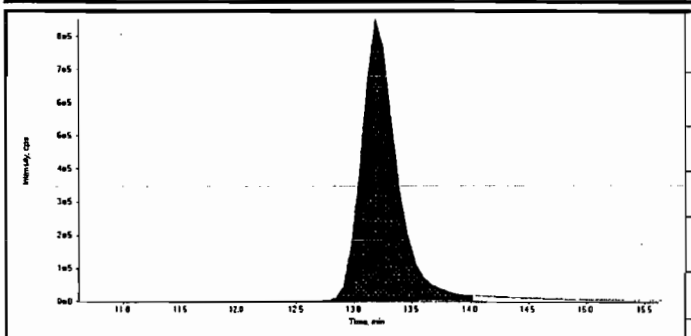
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.07
Area Counts:	9.42e+006
Manual Modification	No
Amount:	40.0 (ng/mL)
% Accuracy:	100.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.68e+006
Manual Modification	No
Amount:	43.7 (ng/mL)
% Accuracy:	109.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	2.75e+006
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	103.00



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.82e+007
Manual Modification	No
Amount:	40.3 (ng/mL)
% Accuracy:	101.00

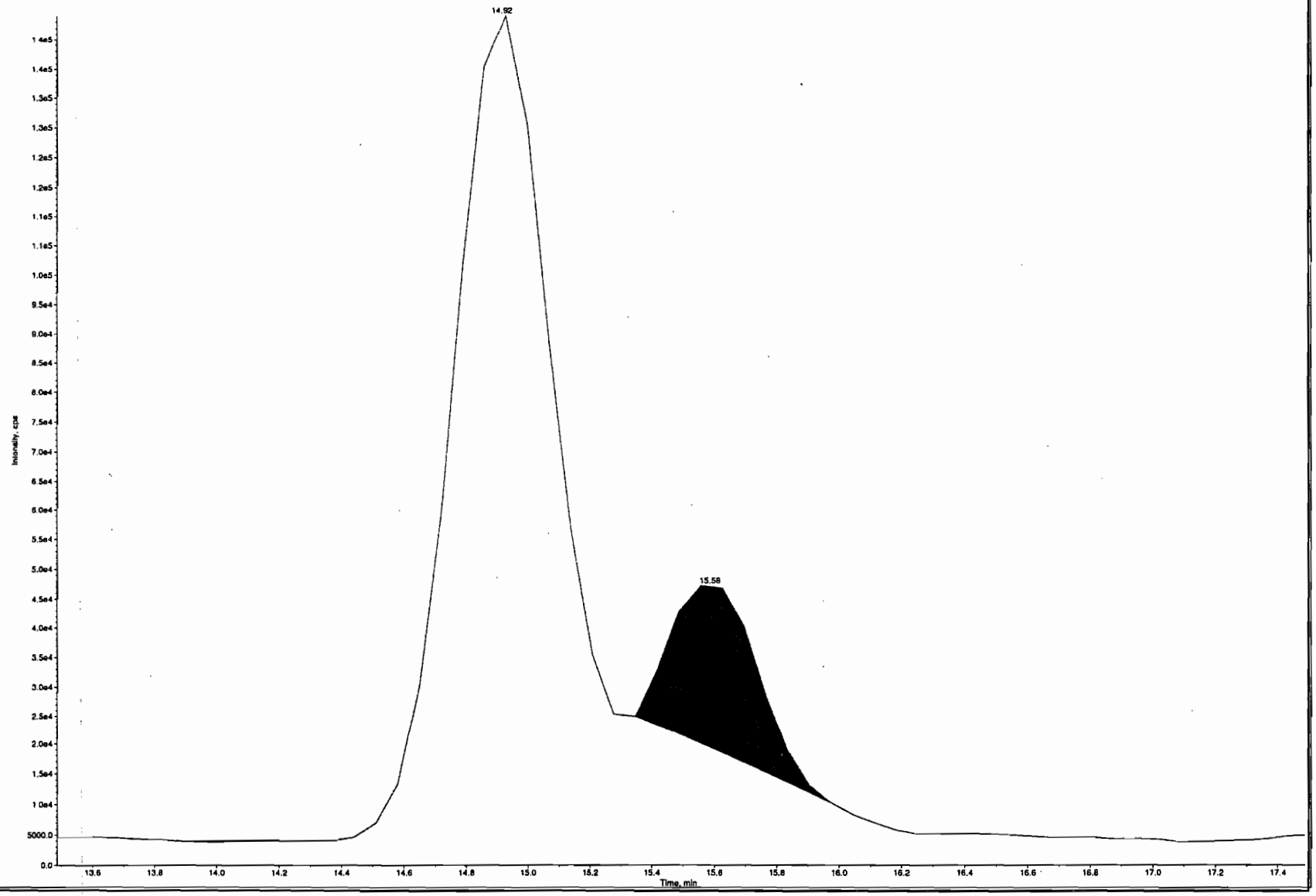
Before Jan 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415032.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 9.27 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 11:31:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 15.5 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 15.6 min
Area: 5.46e+005 counts
Height: 2.72e+004 cps
Start Time: 15.3 min
End Time: 16.0 min



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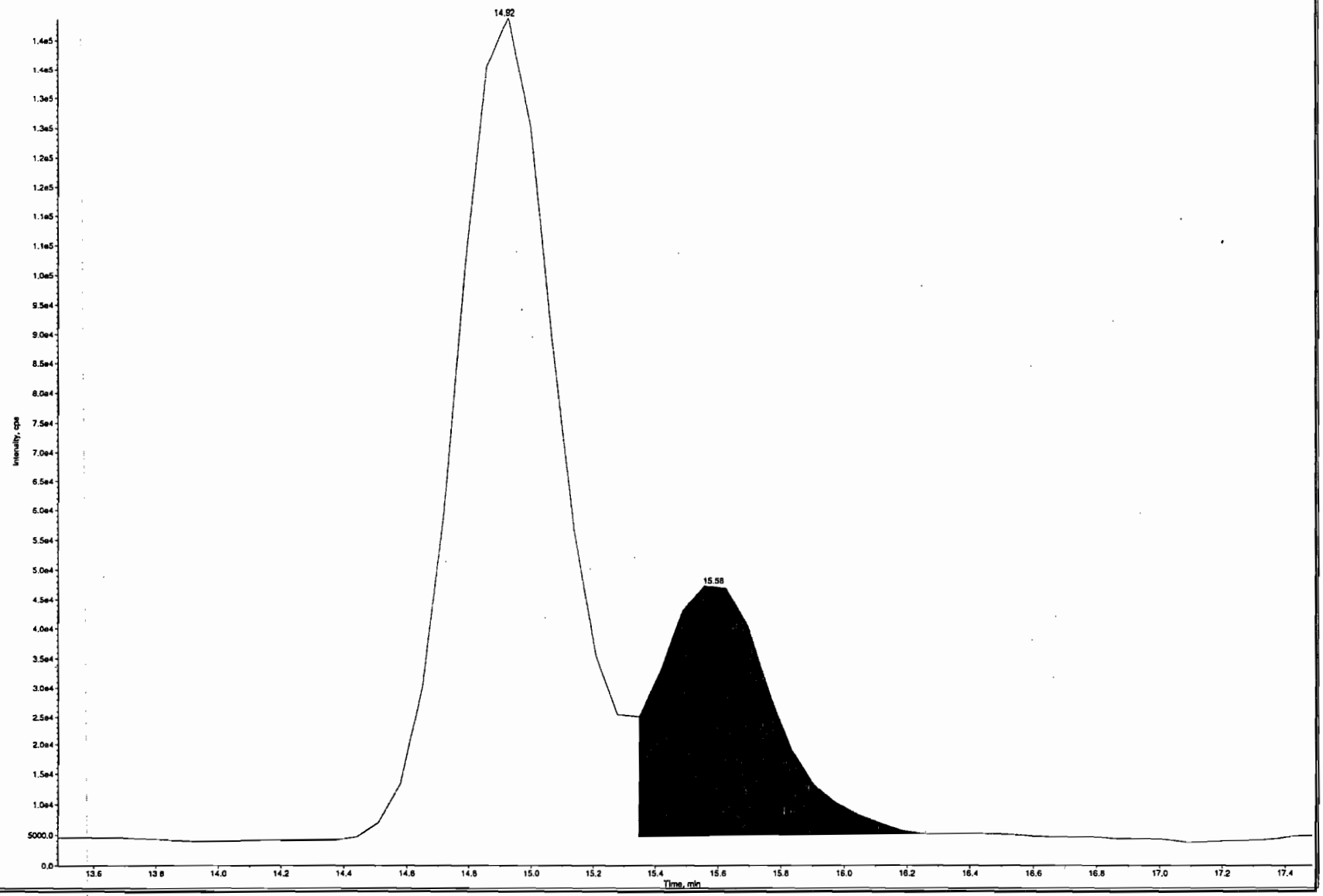
after Lab 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415032.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	40.0 ng/mL
Calculated Conc:	28.6 ng/mL
Acq. Date:	4/15/2010
Acq. Time:	11:31:31 PM
Modified:	Yes
RT Window:	30.0 sec
Expected RT:	15.5 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	15.6 min
Area:	1.06e+006 counts
Height:	4.29e+004 cps
Start Time:	15.3 min
End Time:	16.1 min



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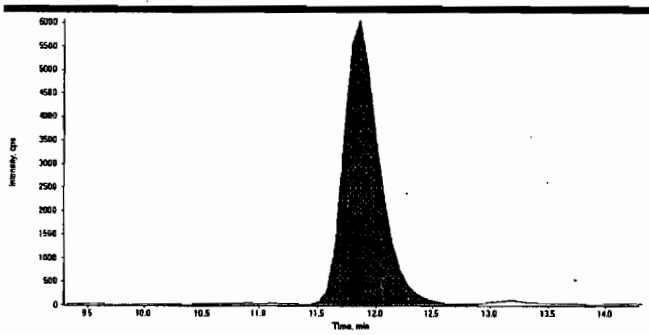
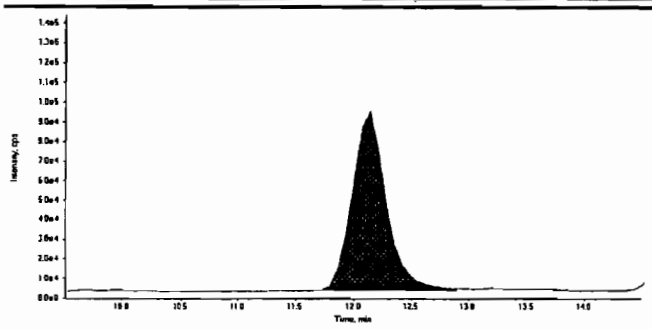
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

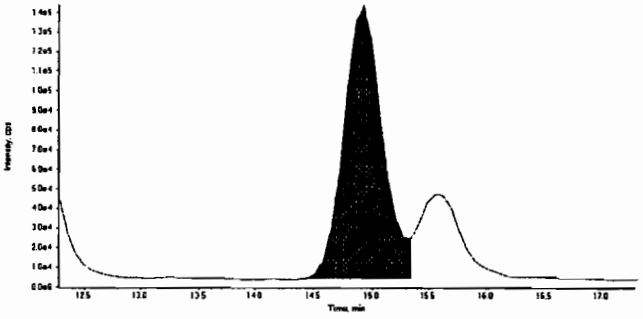
Data File	EXP0415032.wiff	**Acquisition Date**	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



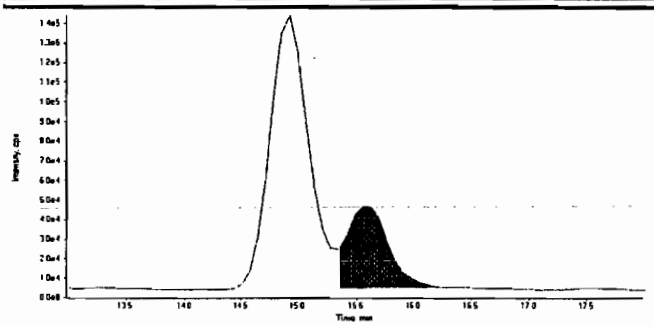
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.29e+005
Manual Modification	No
Amount:	47.8 (ng/mL)
% Accuracy:	119.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	1.89e+006
Manual Modification	No
Amount:	17.2 (ng/mL)
% Accuracy:	85.80



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.32e+006
Manual Modification	No
Amount:	33.6 (ng/mL)
% Accuracy:	84.00



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.06e+006
Manual Modification	Yes
Amount:	28.6 (ng/mL)
% Accuracy:	71.50

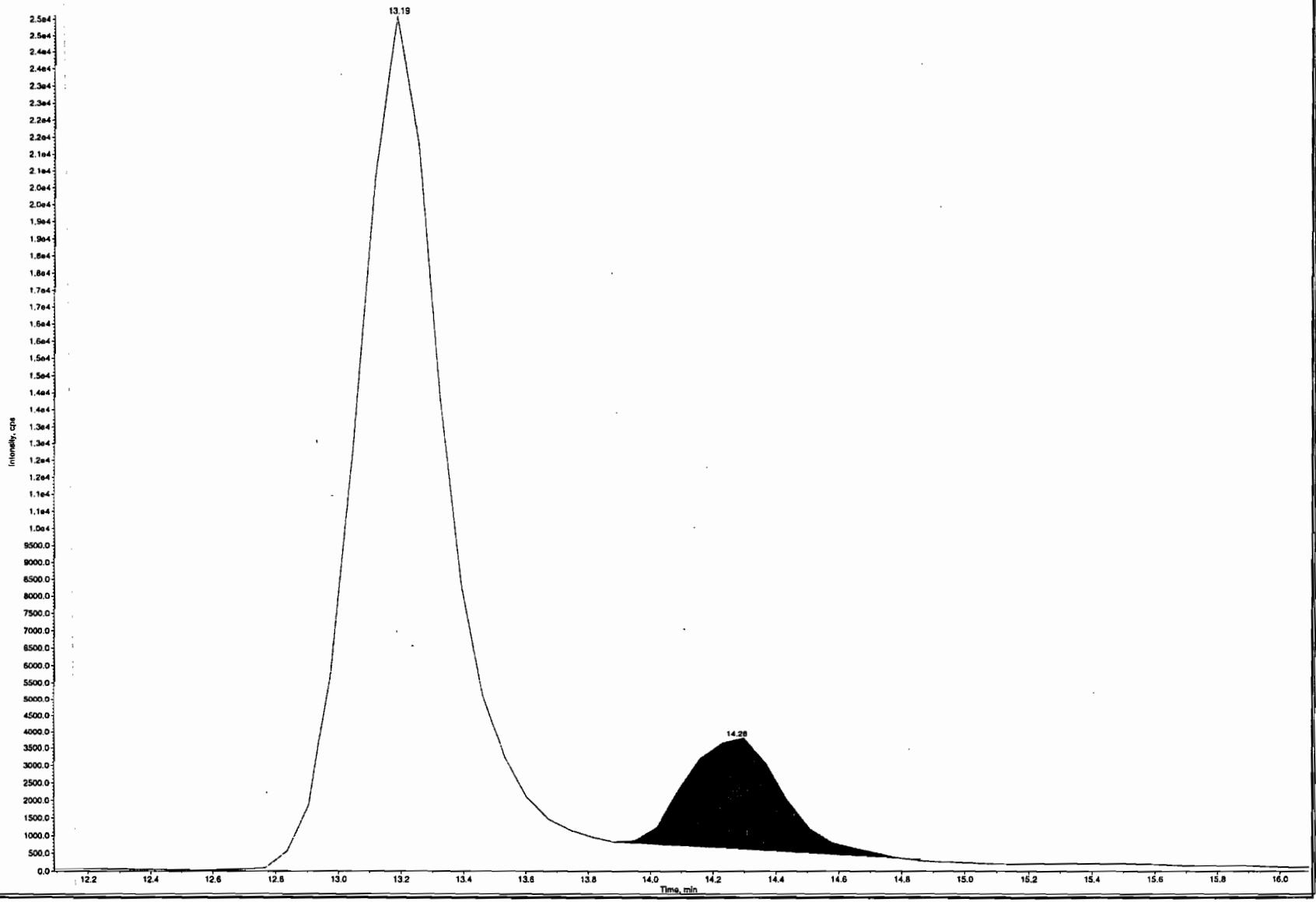
Before Scan 4/23/10

Sample Name: "WXX100415-S7CRI" Sample ID: "[1]LER" File: "EXP0415032.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/160.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 27.2 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 11:31:31 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 9.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.3 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.3 min
Area: 6.79e+004 counts
Height: 3.20e+003 cps
Start Time: 13.9 min
End Time: 14.9 min



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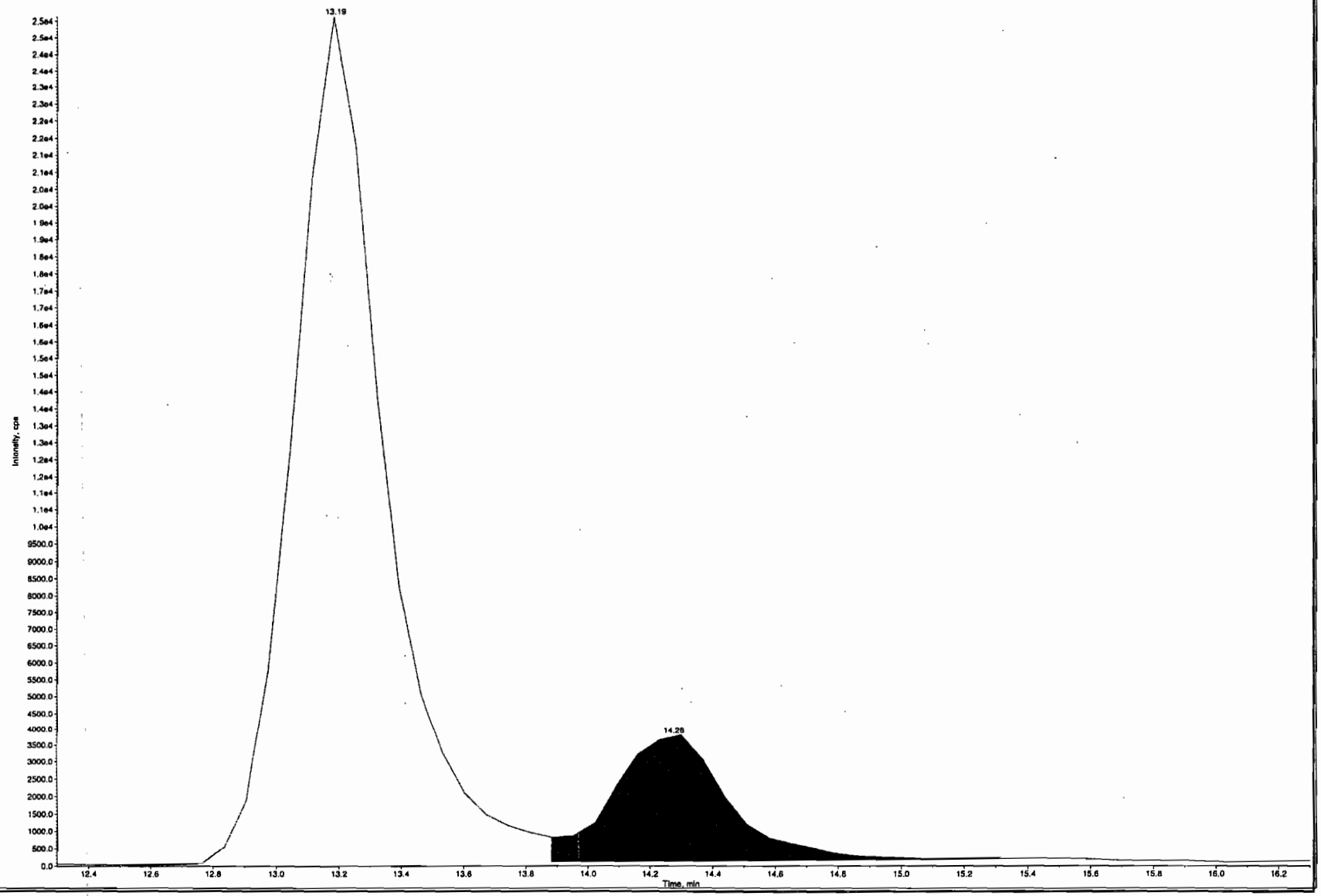
Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415032.wiff"
Peak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "197.0/160.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.0	ng/mL
Calculated Conc:	37.9	ng/mL
Acq. Date:	4/15/2010	
Acq. Time:	11:31:31 PM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	14.3	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	14.3	min
Area:	9.47e+004	counts
Height:	3.73e+003	cps
Start Time:	13.9	min
End Time:	15.1	min



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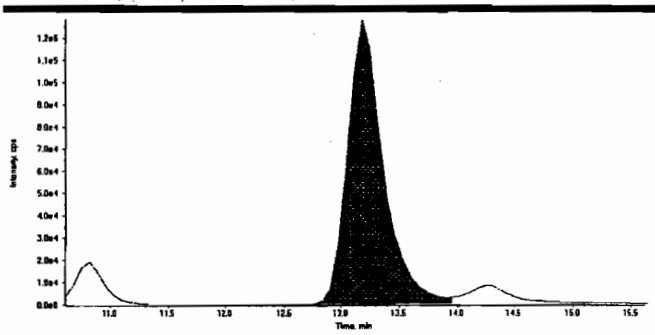
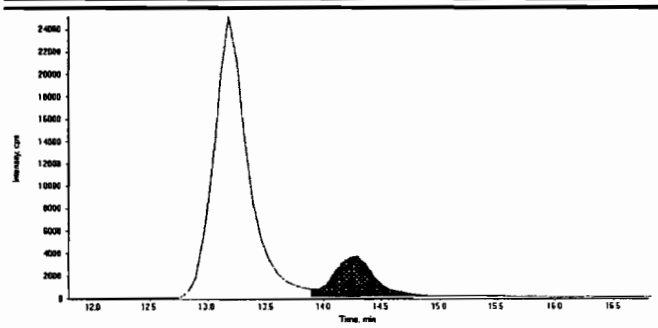
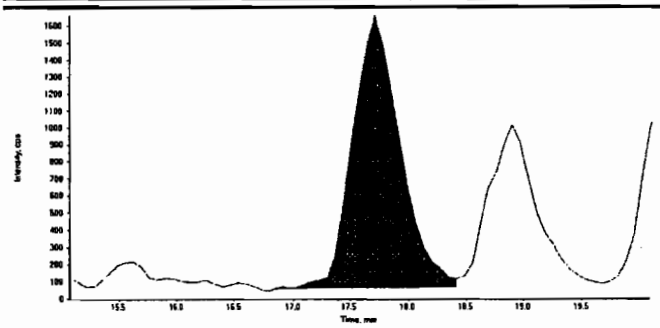
Data File	EXP0415032.wiff	**Acquisition Date**	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



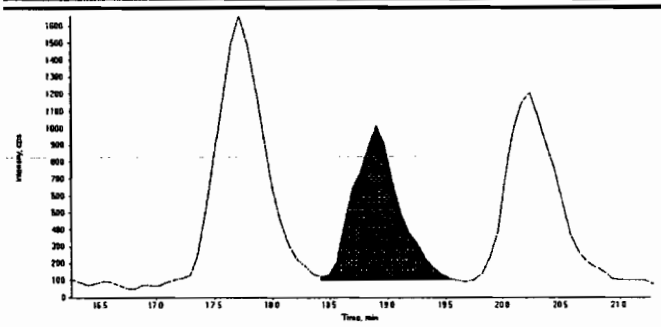
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.78e+006
Manual Modification	No
Amount:	42.6 (ng/mL)
% Accuracy:	107.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	9.47e+004
Manual Modification	Yes
Amount:	37.9 (ng/mL)
% Accuracy:	94.80



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	4.60e+004
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.9
Area Counts:	2.52e+004
Manual Modification	No
Amount:	46.3 (ng/mL)
% Accuracy:	116.00

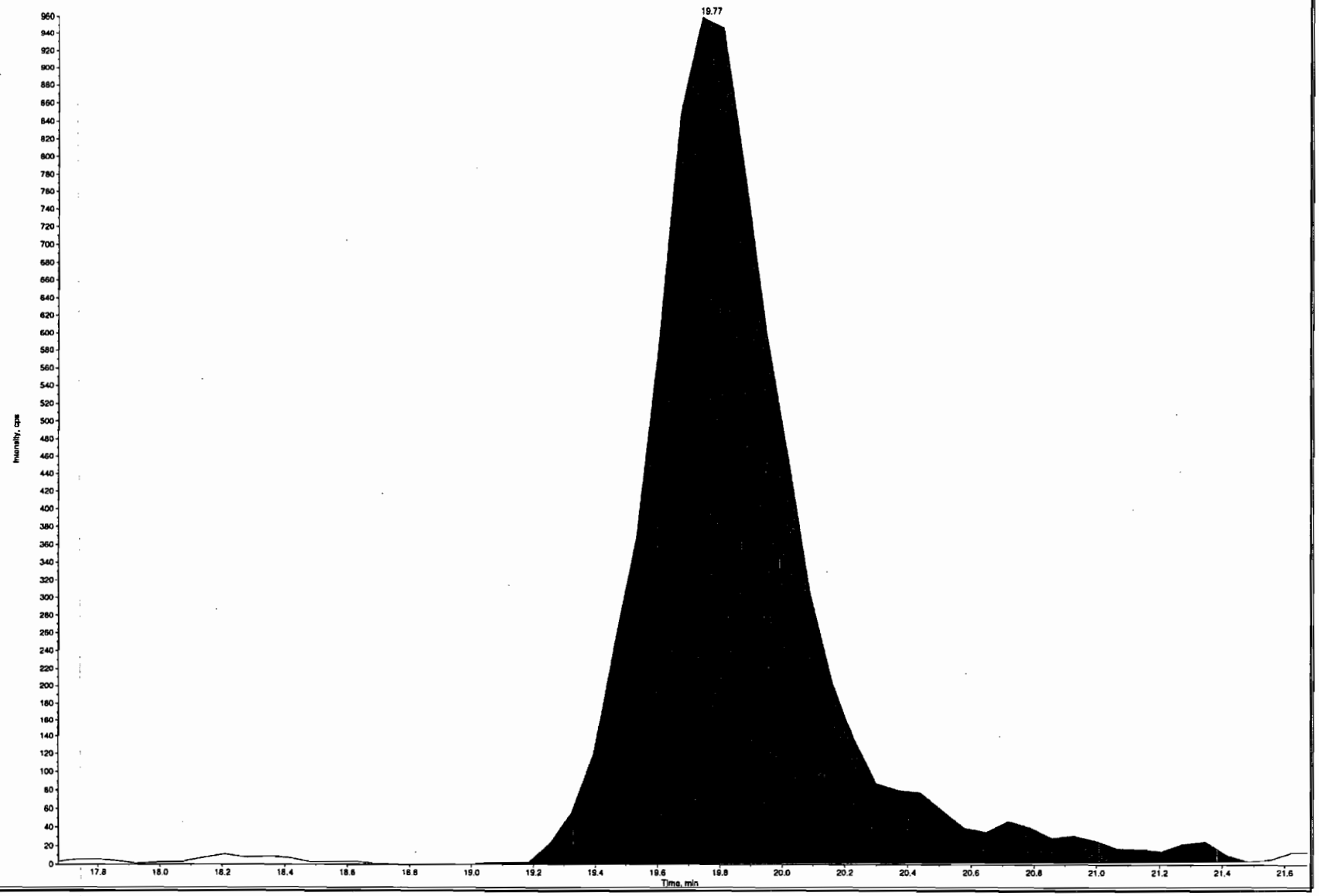
Before Scan 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415032.wiff"
Peak Name: "PETN" Mass(es) "361.1/52.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 40.0 ng/mL
Calculated Conc: 48.6 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 11:31:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.7 min
Area: 3.03e+004 counts
Height: 9.59e+002 cps
Start Time: 19.0 min
End Time: 21.5 min



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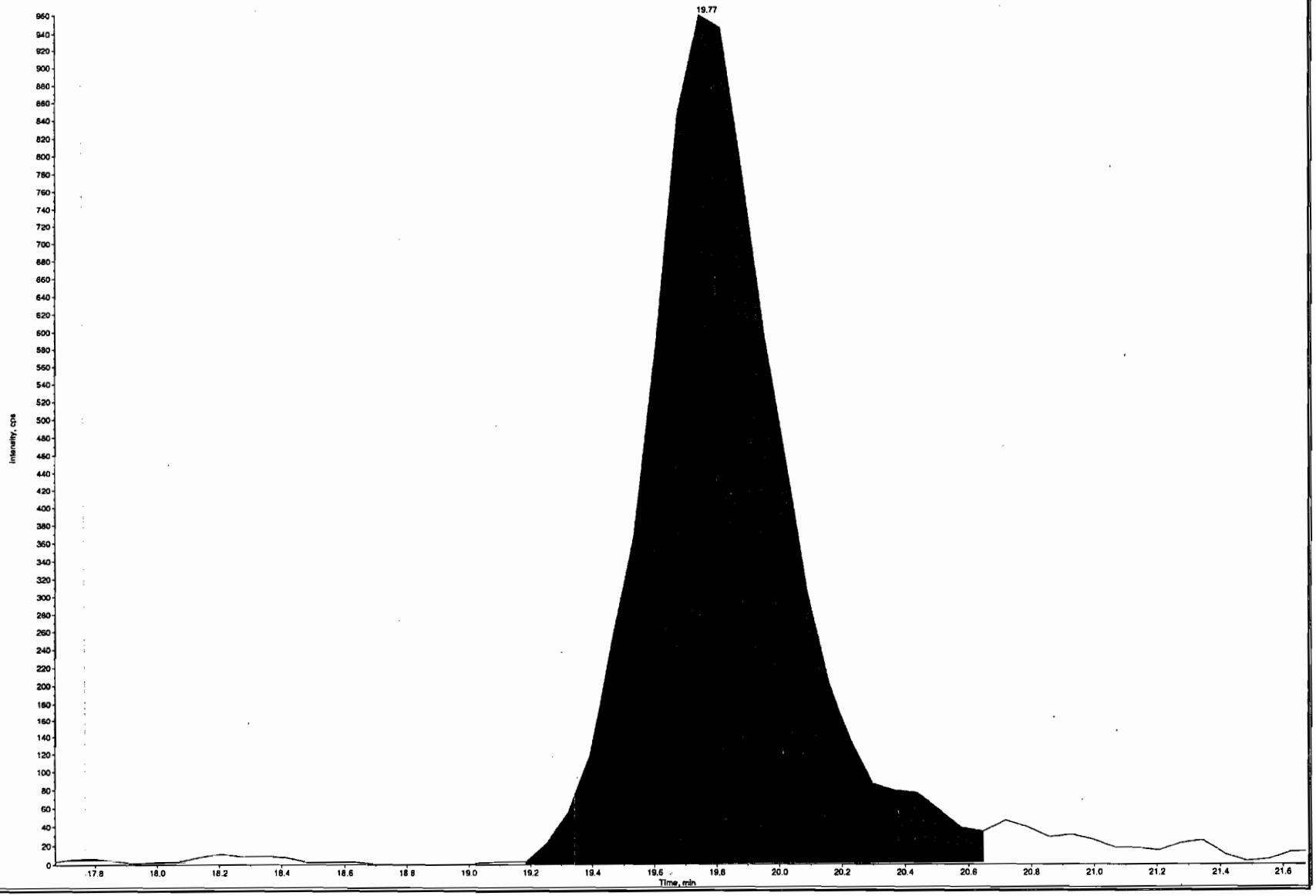
after Dan 4/23/10

Sample Name: "WXX100415-S7CRI" Sample ID: "[1]LER" File: "EXP0415032.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.0	ng/mL
Calculated Conc:	46.6	ng/mL
Acq. Date:	4/15/2010	
Acq. Time:	11:31:31 PM	
Modified:	Yes	
RT Window:	60.0	sec
Expected RT:	19.7	min
Use Relative RT:	No	
Acc. Type:	Manual	
Retention Time:	19.8	min
Area:	2.92e+004	counts
Height:	9.69e-003	cps
Start Time:	19.2	min
End Time:	20.6	min



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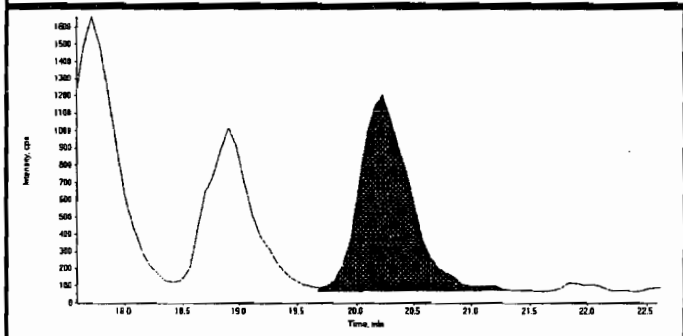
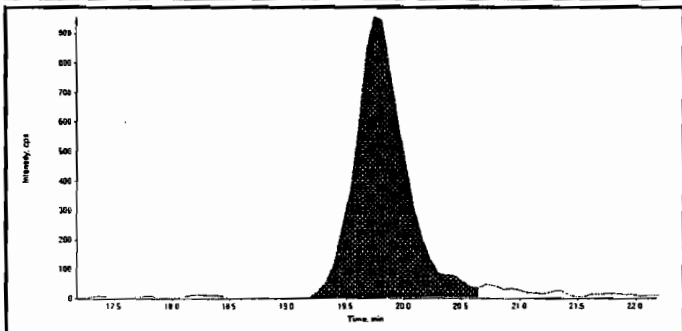
Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415032.wiff	**Acquisition Date**	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	3.52e+004
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	2.92e+004
Manual Modification	Yes
Amount:	46.6 (ng/mL)
% Accuracy:	116.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/15/10
Time of Injection 2331
Standard Number WXX100415-57CRI
Data File EXP0415032a

HMX	121.0
RDX	104.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	109.0
Tetryl	103.0
246-Trinitrotoluene	101.0
Nitrobenzene	119.0
34-dinitrotoluene	85.8
26-dinitrotoluene	84.0
24-dinitrotoluene	71.5
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	94.8
2-Nitrotoluene	112.0
4-Nitrotoluene	116.0
3-Nitrotoluene	112.0
PETN	116.0
TOTAL	1656.1
AVERAGE	103.5

dmc 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/30/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415043.wiff

Analysis Date: 16–APR–10 04:17

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	653	109	
2,4,6–Trinitrotoluene	600	588	98	
2,4–Dinitrotoluene	600	592	99	
2,6–Dinitrotoluene	600	572	95	
2–Amino–4,6–dinitrotoluene	600	602	100	
3,4–Dinitrotoluene	300	261	87	
4–Amino–2,6–dinitrotoluene	600	624	104	
HMX	600	608	101	
Nitrobenzene	600	628	105	
PETN	600	756	126	
RDX	600	680	113	
Tetryl	600	640	107	
m–Dinitrobenzene	600	588	98	
m–Nitrotoluene	600	568	95	
o–Nitrotoluene	600	584	97	
p–Nitrotoluene	600	660	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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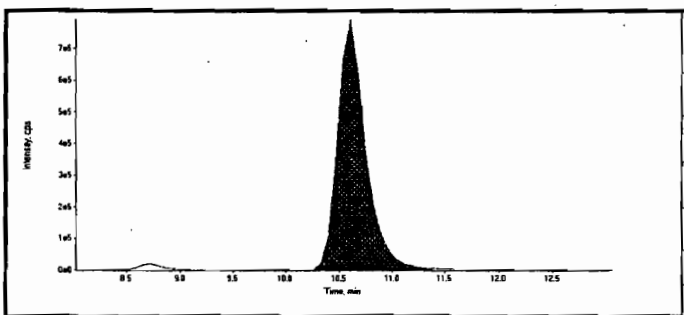
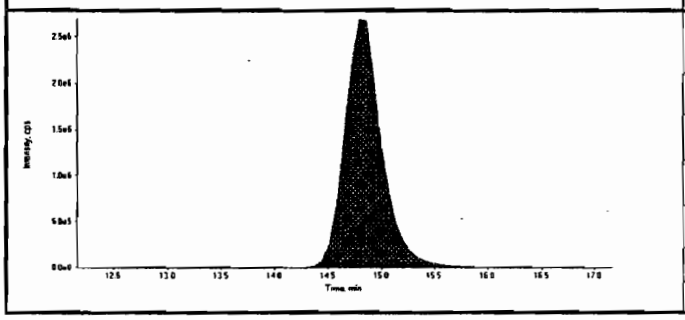
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

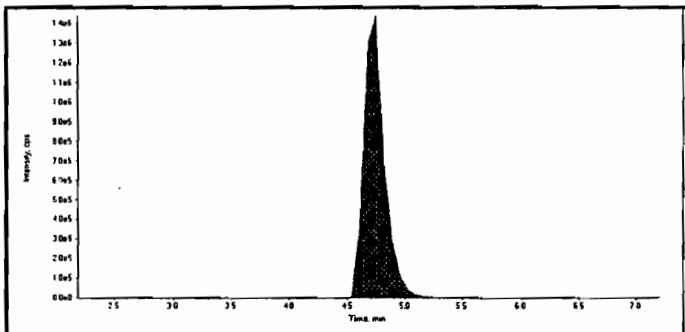
Data File	EXP0415043.wiff	**Acquisition Date**	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



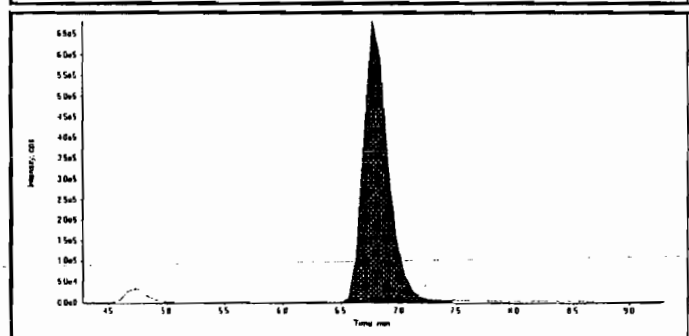
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.81e+007
Manual Modification	No
Amount:	608. (ng/mL)
% Accuracy:	101.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.02e+007
Manual Modification	No
Amount:	680. (ng/mL)
% Accuracy:	113.00

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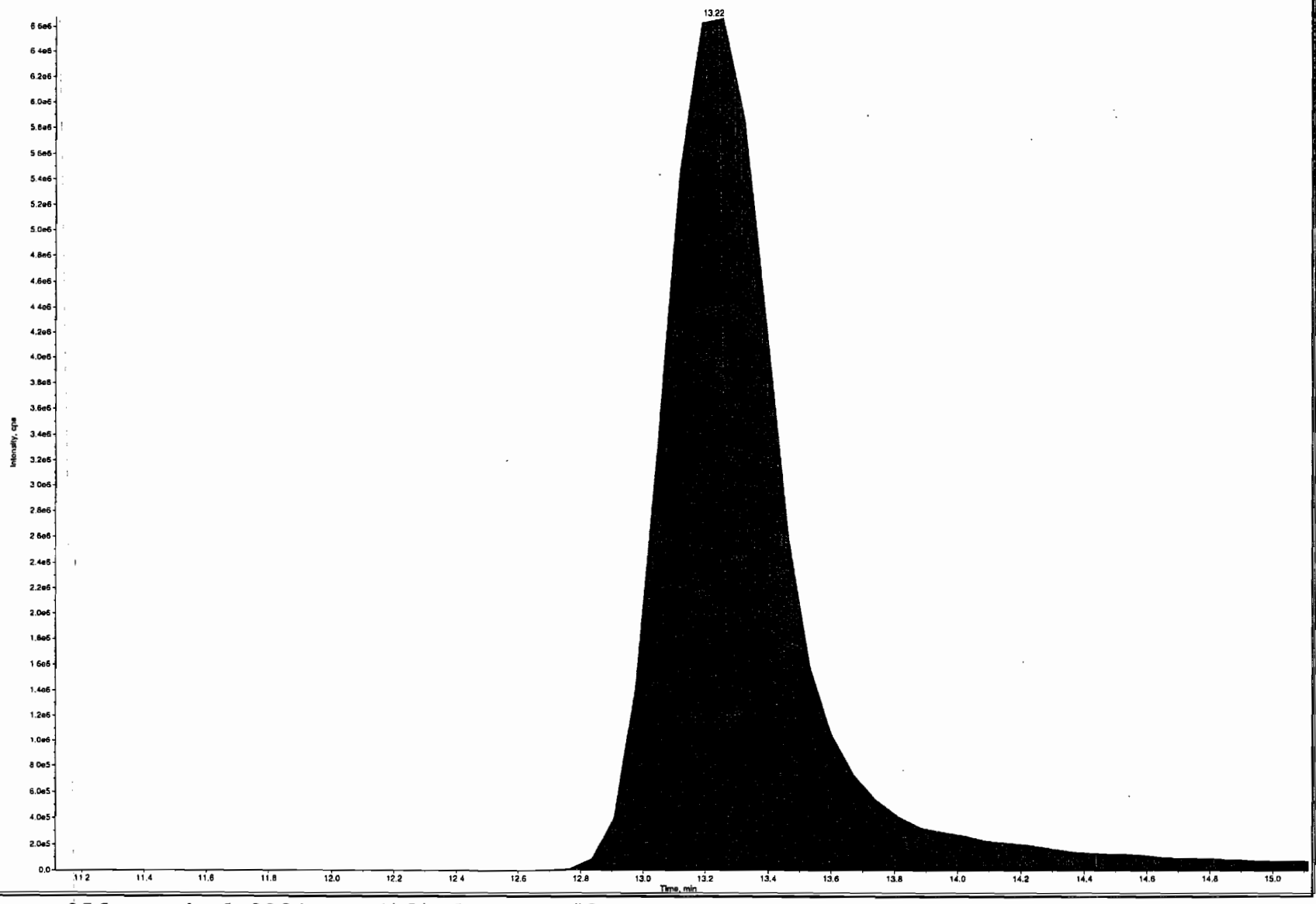
Sample Name "WXX100415-56CCV" Sample ID "[1]LER" File, "EXP0415043.wiff"
Peak Name "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment, "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 677. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 4:17:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 30.0 sec
Expected RT: 11.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.3 min
Area: 1.89e-006 counts
Height: 6.67e-006 cps
Start Time: 12.6 min
End Time: 15.6 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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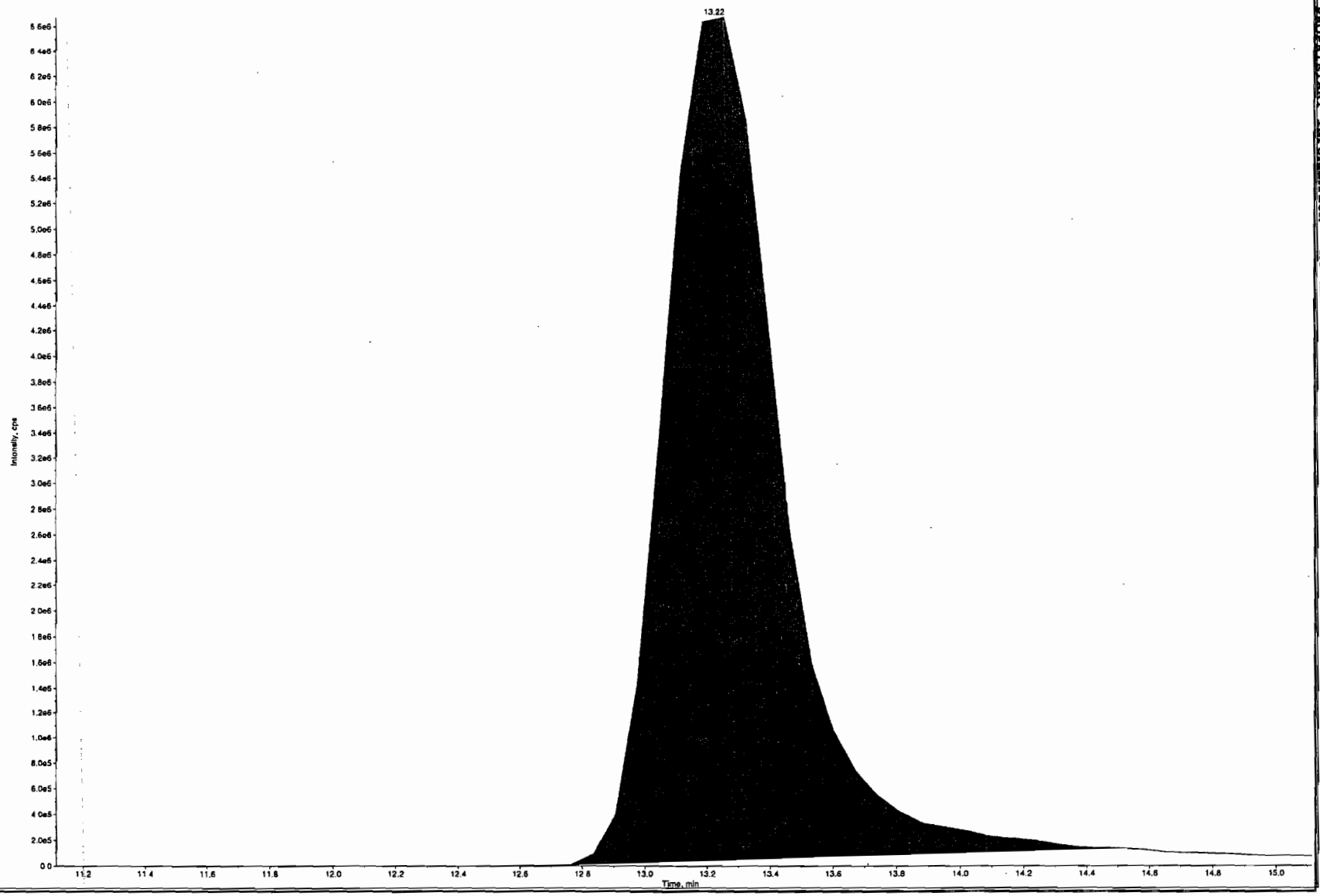
after Scan 4/23/10

Sample Name: "WXX100415-55CCV" Sample ID: "[1]LER" File "EXP0415043.wiff"
Peak Name "246-Trinitrotoluene" Mass(es). "227.1/209.6 amu"
Comment "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	585.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	4:17:22 AM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	13.1	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	13.2	min
Area:	1.73e+008	counts
Height:	6.71e+006	cps
Start Time:	12.7	min
End Time:	14.4	min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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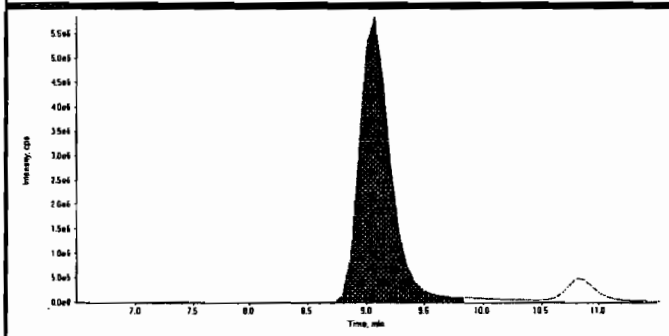
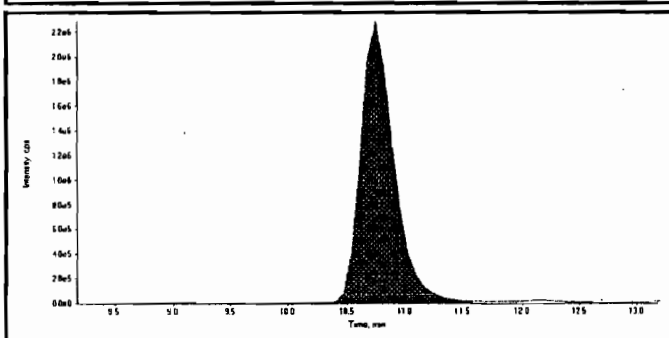
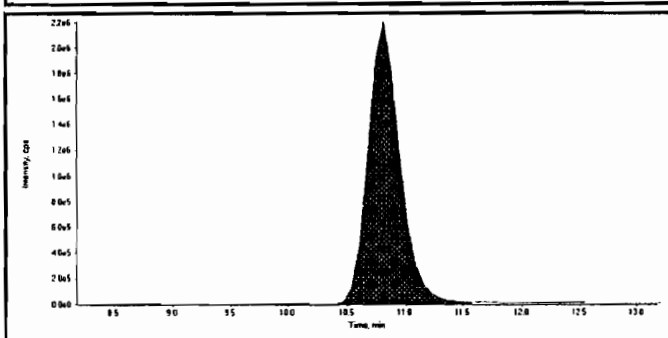
Data File	EXP0415043.wiff	**Acquisition Date**	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



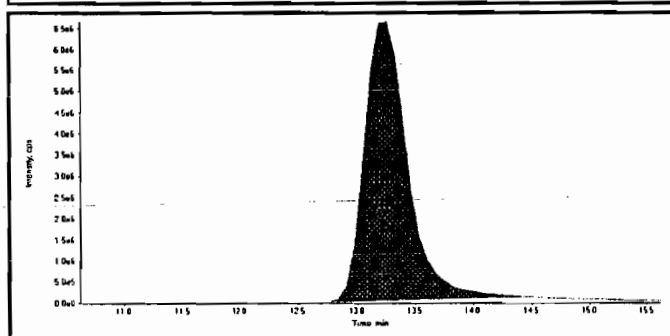
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.07
Area Counts:	1.10e+008
Manual Modification	No
Amount:	653. (ng/mL)
% Accuracy:	109.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.60e+007
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	98.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	4.25e+007
Manual Modification	No
Amount:	640. (ng/mL)
% Accuracy:	107.00



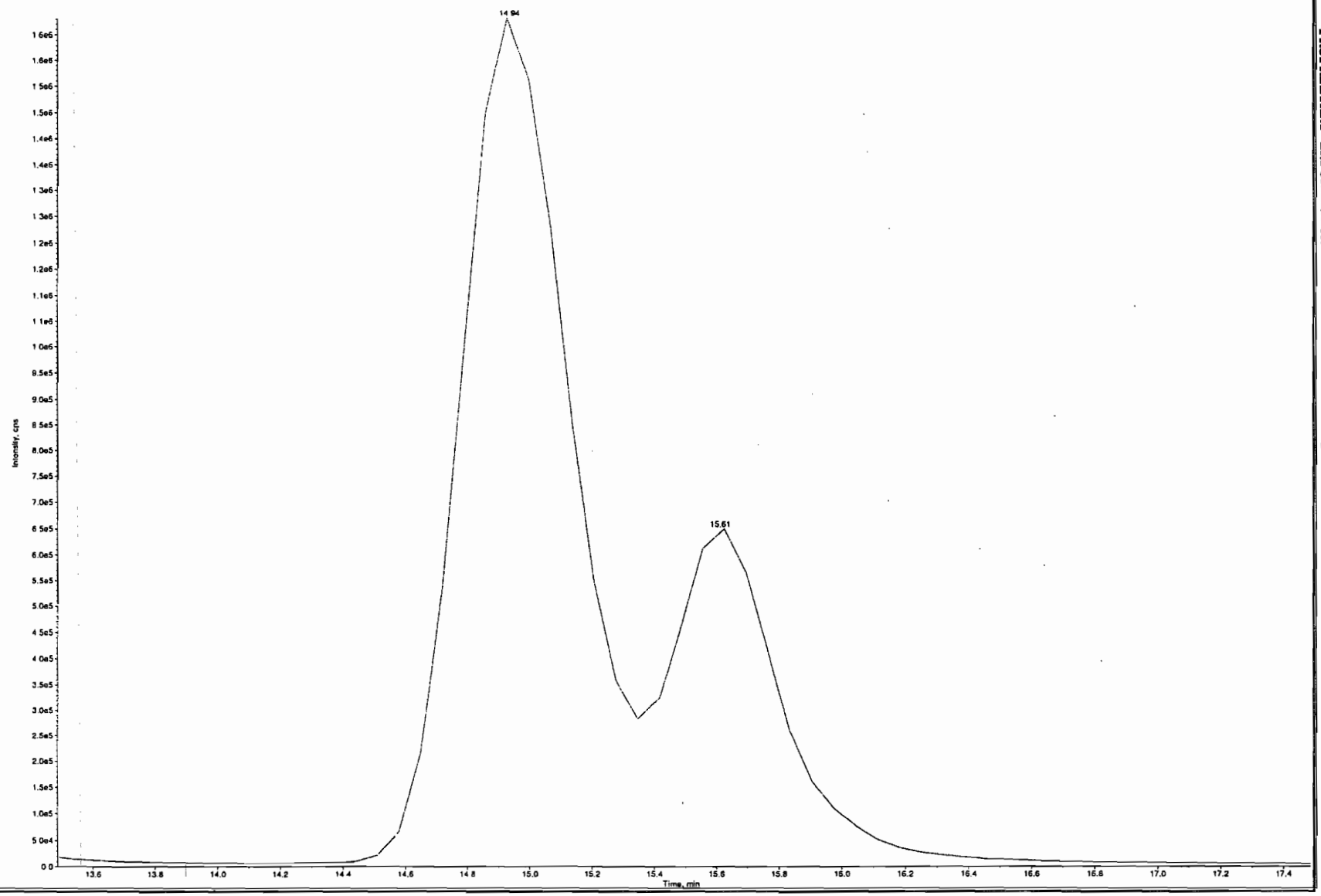
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.73e+008
Manual Modification	Yes
Amount:	588. (ng/mL)
% Accuracy:	98.00

Before Ran 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415043.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 4:17:22 AM

Modified: No



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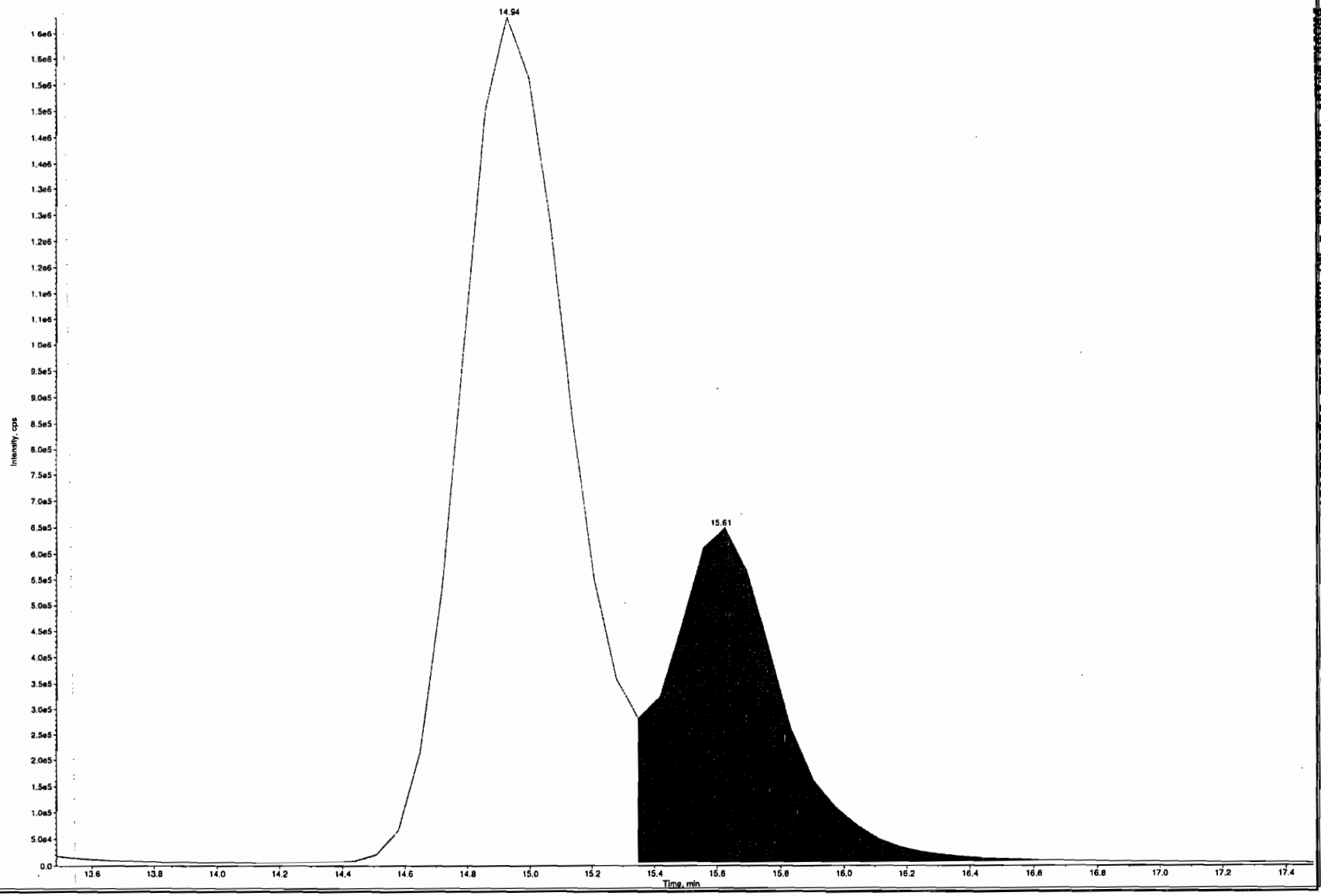
after Lan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "11|LER" ; File: "EXP0415043 wif"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	552.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	4:17:22 AM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	15.5	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	15.6	min
Area:	1.60e+007	counts
Height:	6.44e-005	cps
Start Time:	15.3	min
End Time:	16.7	min



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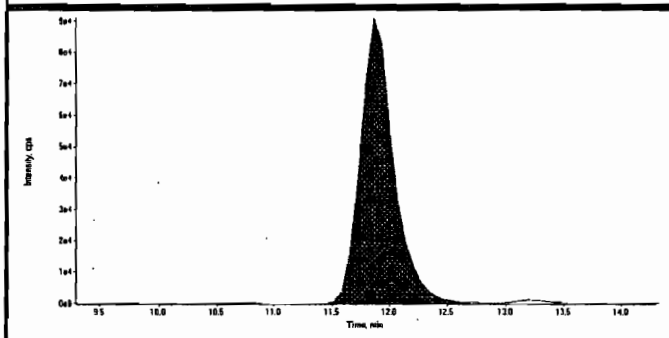
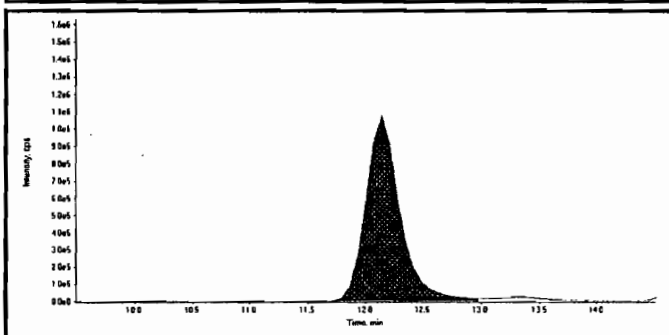
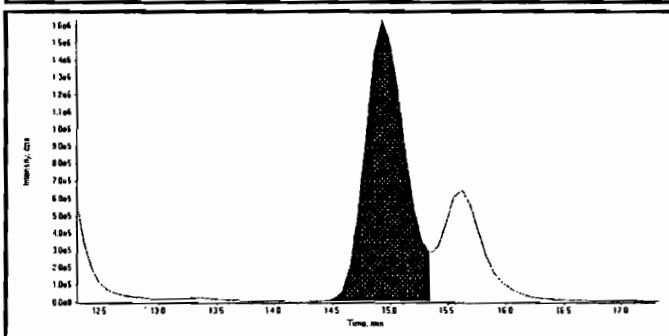
Data File	EXP0415043.wiff	**Acquisition Date**	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



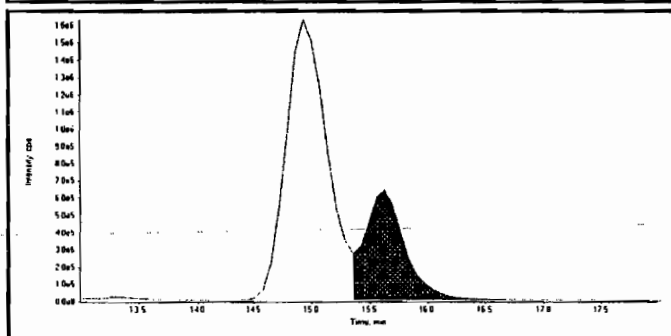
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.86e+006
Manual Modification	No
Amount:	628. (ng/mL)
% Accuracy:	105.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.26e+007
Manual Modification	No
Amount:	261. (ng/mL)
% Accuracy:	86.90



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	4.02e+007
Manual Modification	No
Amount:	572. (ng/mL)
% Accuracy:	95.30



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.60e+007
Manual Modification	Yes
Amount:	592. (ng/mL)
% Accuracy:	98.60

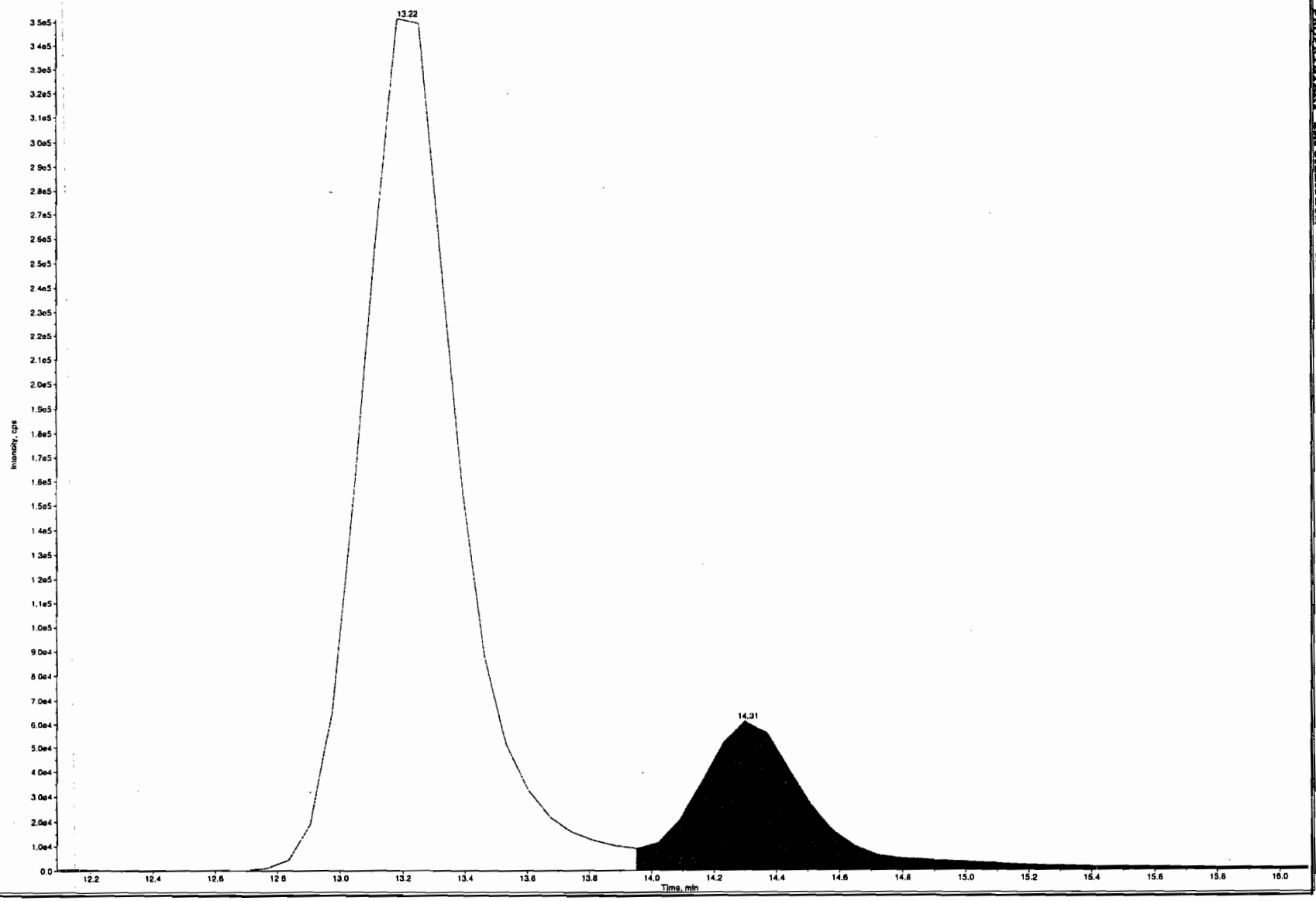
Before Scan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415043.wif"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation ""

Sample Index: 1
Sample Type: CC
Concentration: 600. ng/mL
Calculated Conc: 805. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 4:17:22 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.3 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.3 min
Area: 2.00e-006 counts
Height: 6.55e-004 cps
Start Time: 14.0 min
End Time: 16.5 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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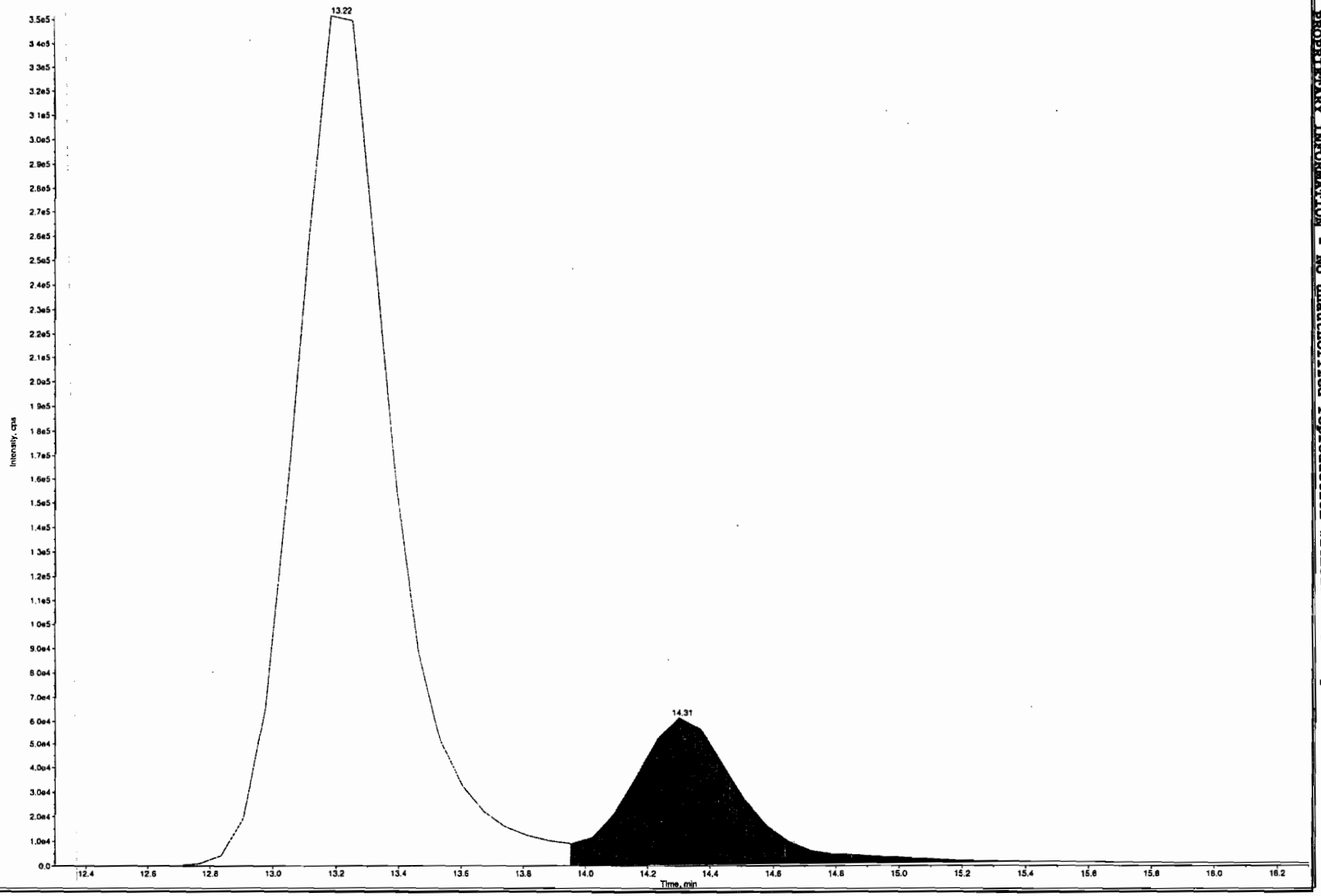
after Lar 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415043.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es) "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	602.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	4:17:22 AM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	14.1	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	14.1	min
Area:	1.49e+006	counts
Height:	6.10e+004	cps
Start Time:	14.0	min
End Time:	15.5	min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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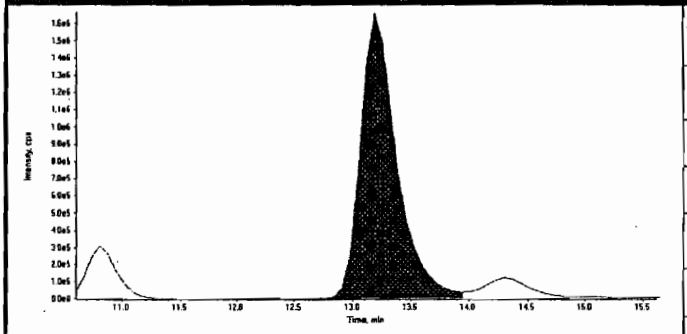
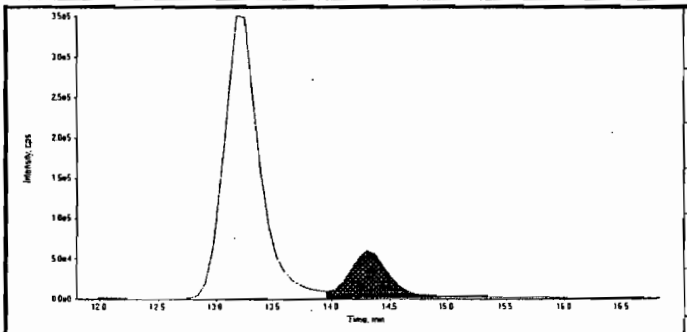
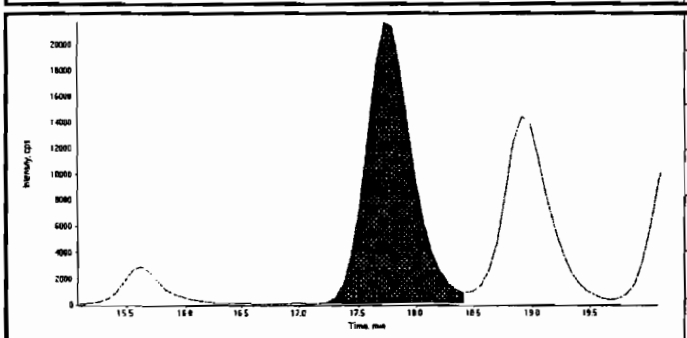
Data File	EXP0415043.wiff	**Acquisition Date**	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



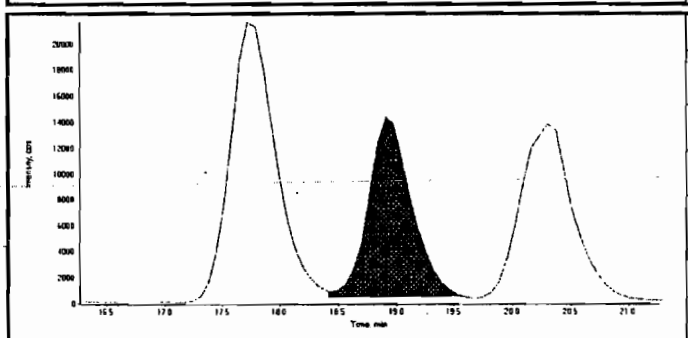
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	3.67e+007
Manual Modification	No
Amount:	624. (ng/mL)
% Accuracy:	104.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	1.49e+006
Manual Modification	Yes
Amount:	602. (ng/mL)
% Accuracy:	100.00



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	6.10e+005
Manual Modification	No
Amount:	584. (ng/mL)
% Accuracy:	97.30



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.9
Area Counts:	3.68e+005
Manual Modification	No
Amount:	660. (ng/mL)
% Accuracy:	110.00

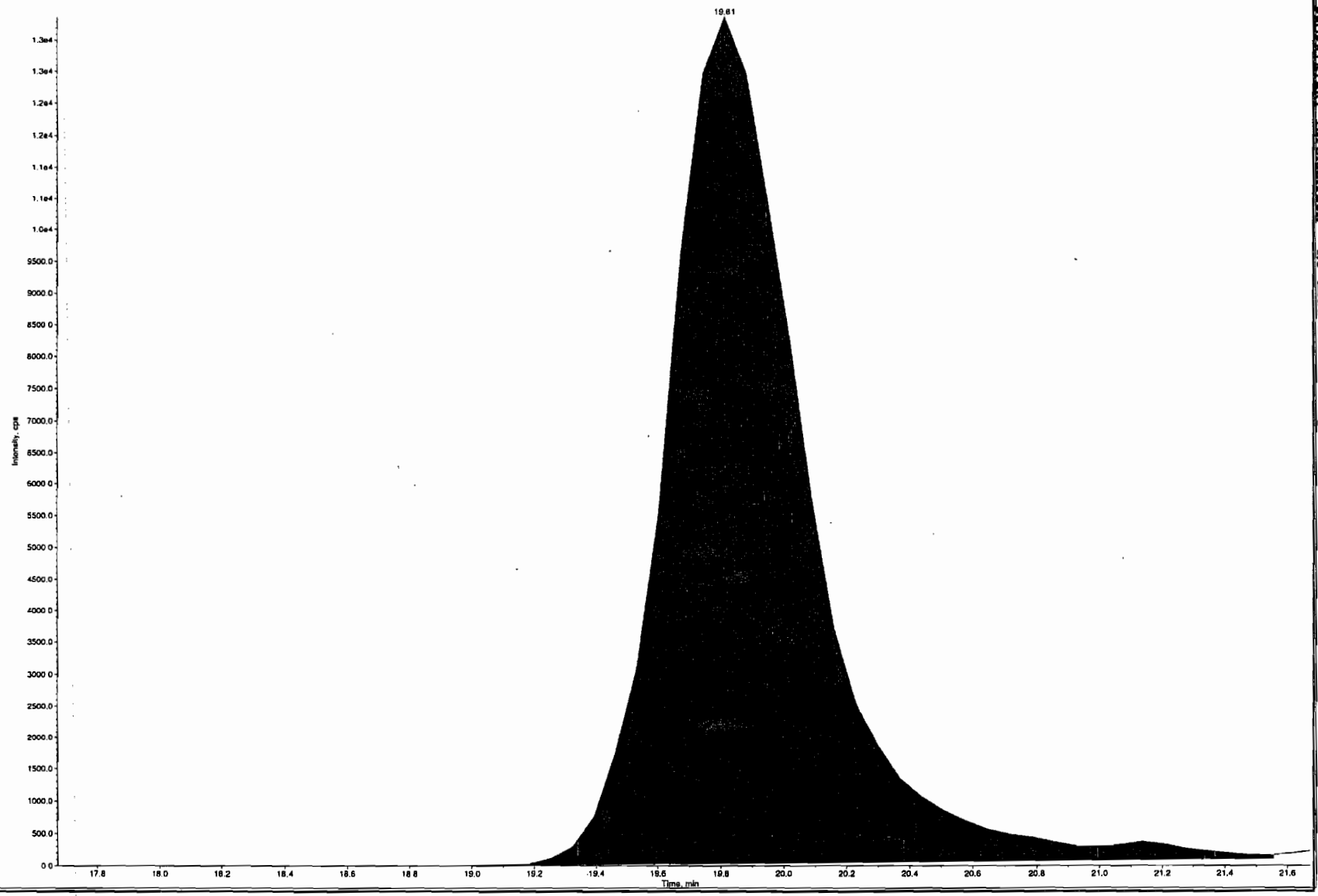
Before Scan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415043.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 767. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 4:17:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - ICA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.8 min
Area: 4.12e-005 counts
Height: 1.31e+004 cps
Start Time: 19.1 min
End Time: 21.6 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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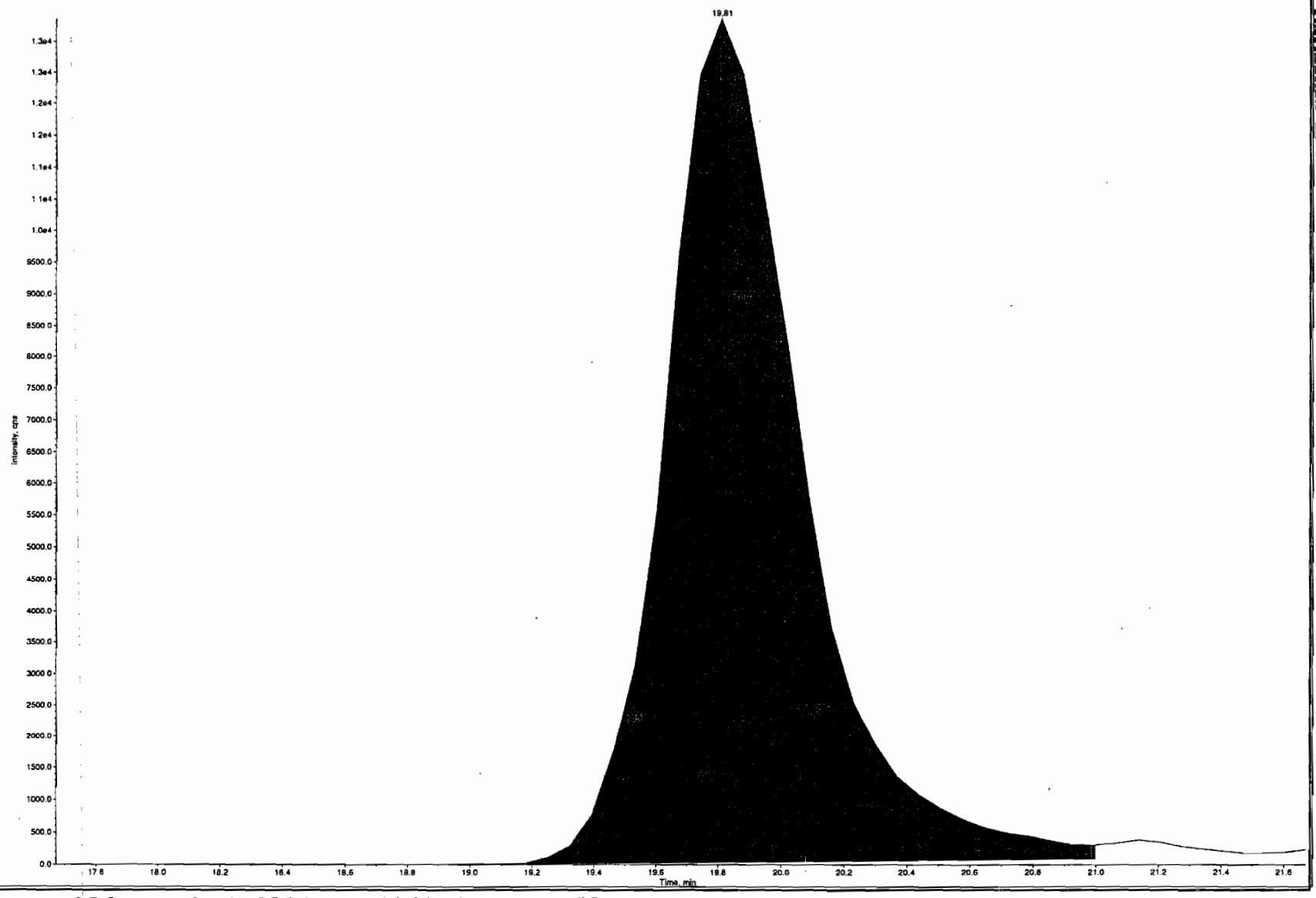
after Scan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP041504.3.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 754. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 4:17:22 AM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 19.8 min
Area: 4.06e+005 counts
Height: 1.13e+004 cps
Start Time: 19.1 min
End Time: 21.0 min



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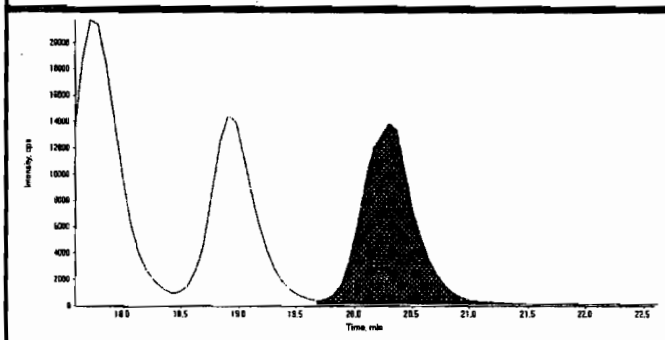
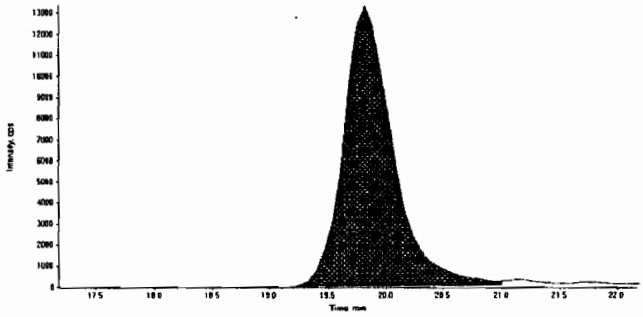
Data File	EXP0415043.wiff	**Acquisition Date**	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	4.46e+005
Manual Modification	No
Amount:	568. (ng/mL)
% Accuracy:	94.70



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	4.06e+005
Manual Modification	Yes
Amount:	756. (ng/mL)
% Accuracy:	126.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 0417
Standard Number WXX100415-56CCV
Data File EXP0415043a

HMX	101.0
RDX	113.0
135-Trinitrobenzene	109.0
13-Dinitrobenzene	98.0
Tetryl	107.0
246-Trinitrotoluene	98.0
Nitrobenzene	105.0
34-dinitrotoluene	86.9
26-dinitrotoluene	95.3
24-dinitrotoluene	98.6
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	100.0
2-Nitrotoluene	97.3
4-Nitrotoluene	110.0
3-Nitrotoluene	94.7
PETN	126.0
TOTAL	1643.8
AVERAGE	102.7

Hmm 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/23/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415045.wiff

Analysis Date: 16-APR-10 05:09

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.2	100	
2,4,6-Trinitrotoluene	40	39.1	98	
2,4-Dinitrotoluene	40	34.2	86	
2,6-Dinitrotoluene	40	32.6	82	
2-Amino-4,6-dinitrotoluene	40	38.6	97	
3,4-Dinitrotoluene	20	18.2	91	
4-Amino-2,6-dinitrotoluene	40	41.4	104	
HMX	40	45.4	114	
Nitrobenzene	40	46.4	116	
PETN	40	47.4	118	
RDX	40	44.6	112	
Tetryl	40	43.3	108	
m-Dinitrobenzene	40	44.3	111	
m-Nitrotoluene	40	44.7	112	
o-Nitrotoluene	40	43.9	110	
p-Nitrotoluene	40	46.7	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

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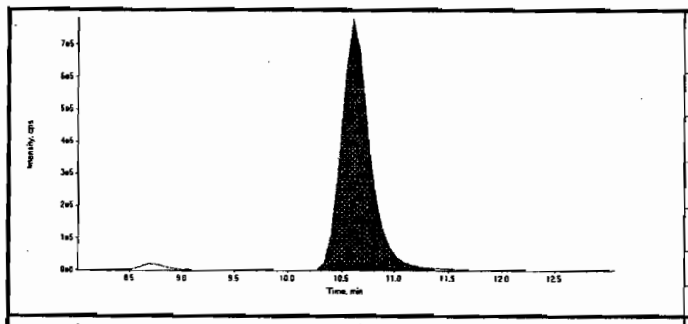
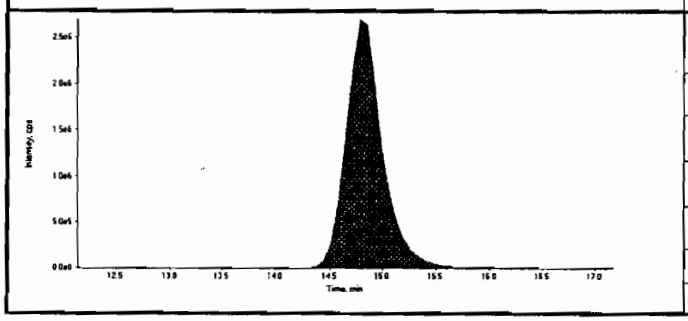
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

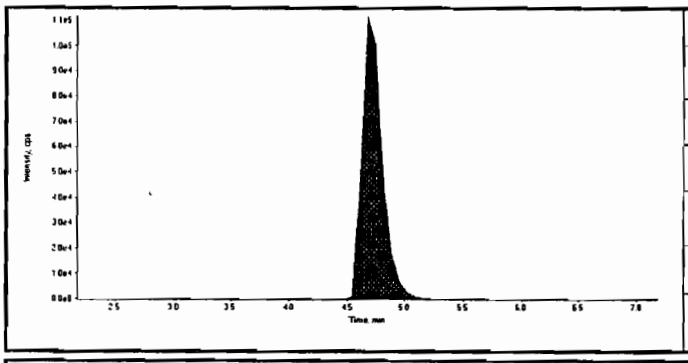
Data File	EXP0415045.wiff	**Acquisition Date**	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



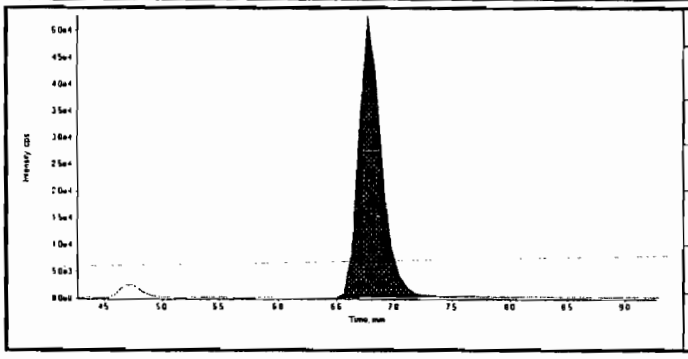
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	65400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.41e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	114.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.44e+005
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

dmc 04/23/10 Lar 4/23/10

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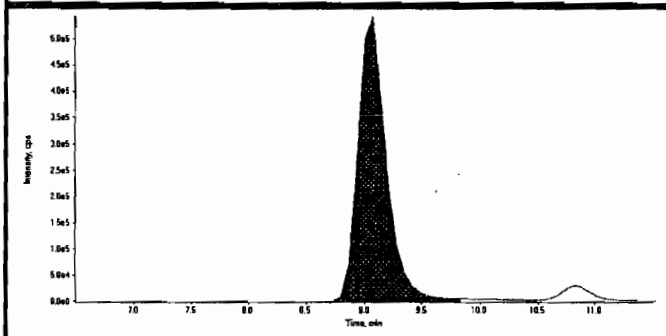
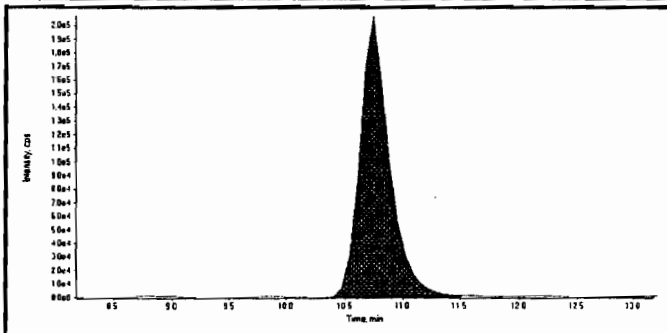
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

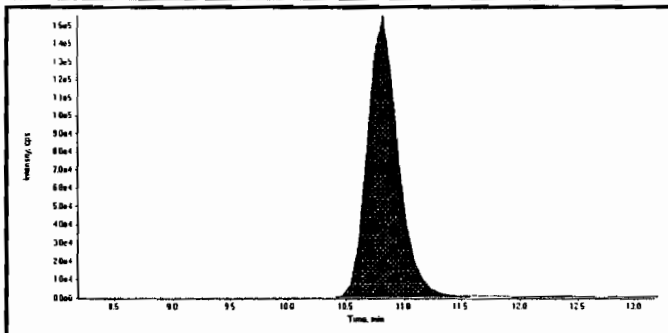
Data File	EXP0415045.wiff	**Acquisition Date**	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



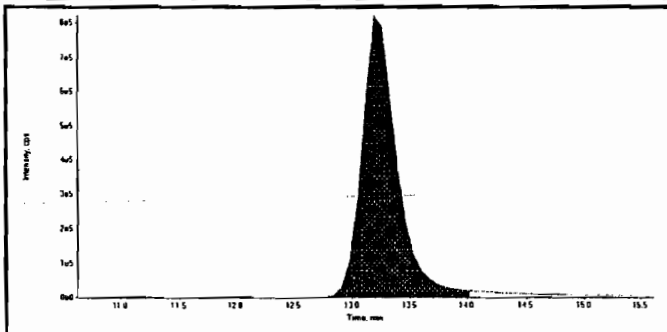
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.07
Area Counts:	9.42e+006
Manual Modification	No
Amount:	40.2 (ng/mL)
% Accuracy:	100.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.73e+006
Manual Modification	No
Amount:	44.3 (ng/mL)
% Accuracy:	111.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	2.91e+006
Manual Modification	No
Amount:	43.3 (ng/mL)
% Accuracy:	108.00



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.74e+007
Manual Modification	No
Amount:	39.1 (ng/mL)
% Accuracy:	97.70

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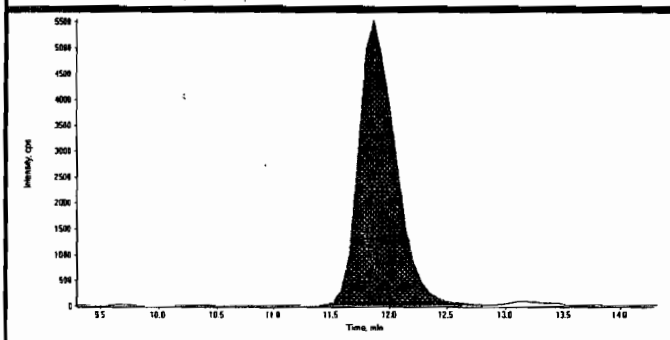
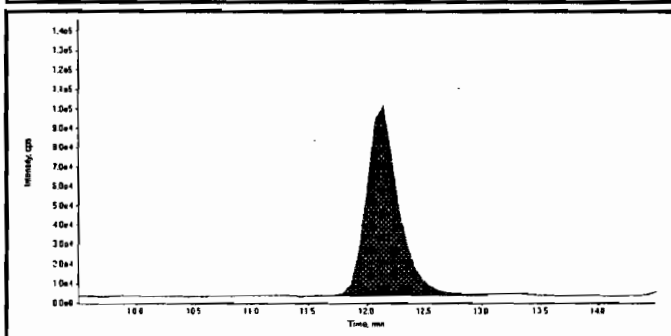
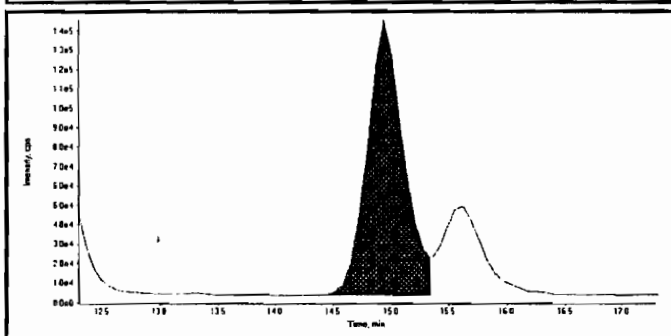
Data File	EXP0415045.wiff	**Acquisition Date**	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



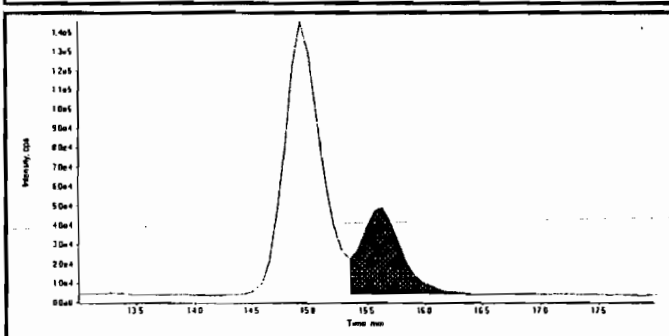
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.25e+005
Manual Modification	No
Amount:	46.4 (ng/mL)
% Accuracy:	116.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	1.93e+006
Manual Modification	No
Amount:	18.2 (ng/mL)
% Accuracy:	90.90



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.18e+006
Manual Modification	No
Amount:	32.6 (ng/mL)
% Accuracy:	81.50



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.19e+006
Manual Modification	No
Amount:	34.2 (ng/mL)
% Accuracy:	85.50

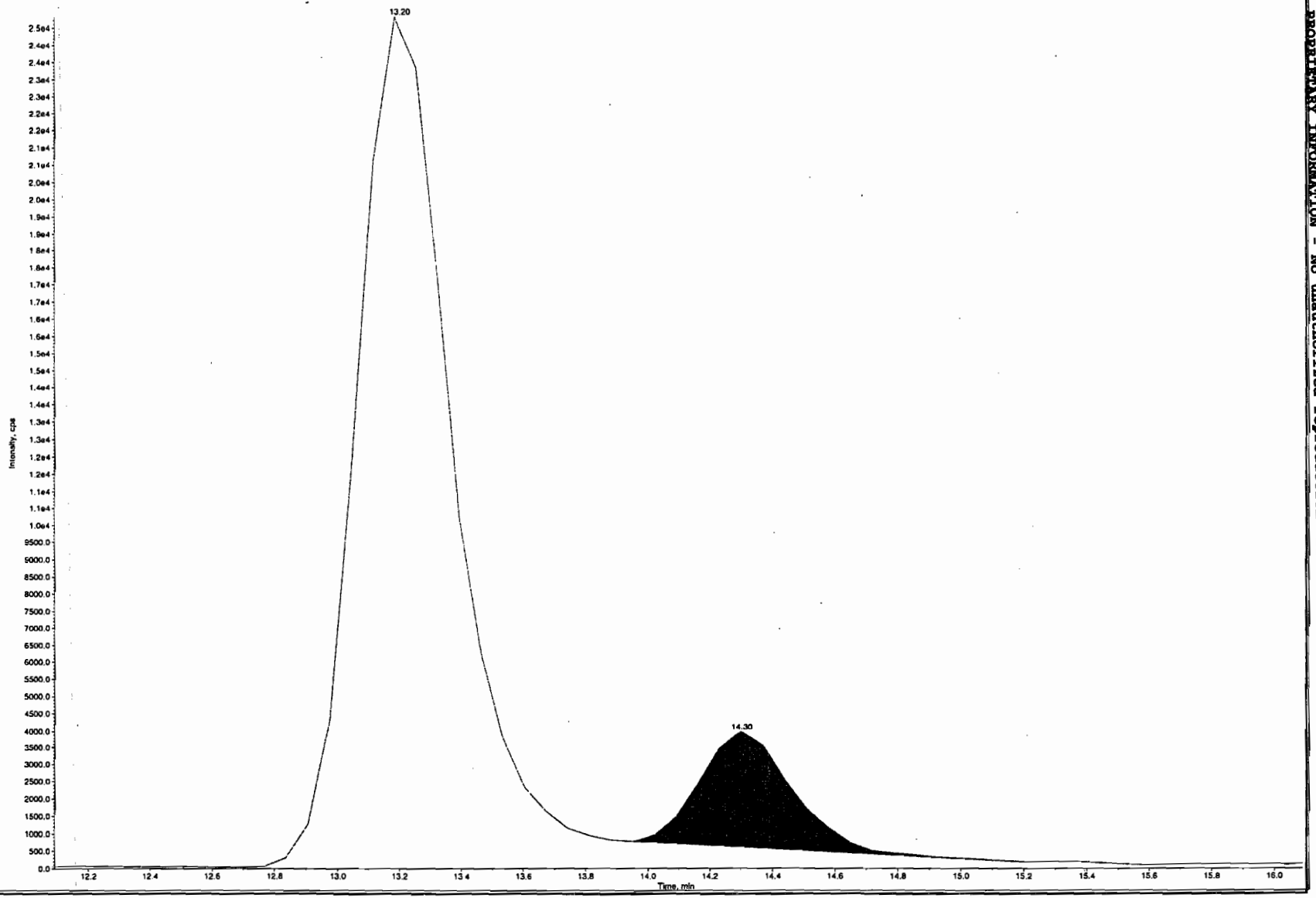
Before Ran 4/23/10

Sample Name: "WXX100415-37CRI" Sample ID: "[1]LER" File: "EXP0415045.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation. ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 28.2 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 5:09:20 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - ICA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.3 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.3 min
Area: 6.89e+004 counts
Height: 1.36e+003 cps
Start Time: 14.0 min
End Time: 15.2 min



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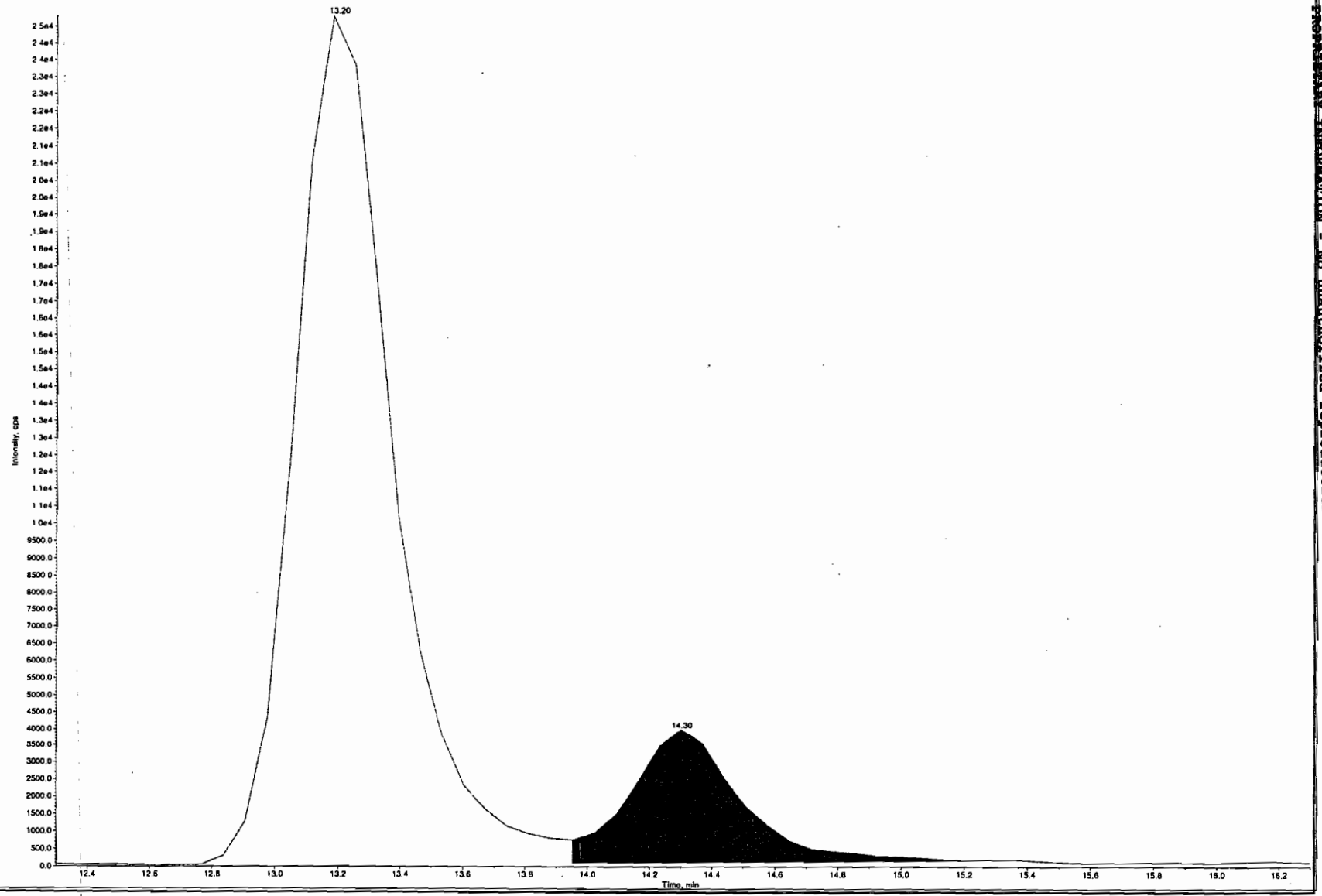
after Ran 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415045.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 40.0 ng/mL
Calculated Conc: 18.6 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 5:09:20 AM

Modified: Yes
RT Window: 10.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.1 min
Area: 9.45e+004 counts
Height: 1.84e+003 cps
Start Time: 14.0 min
End Time: 15.2 min



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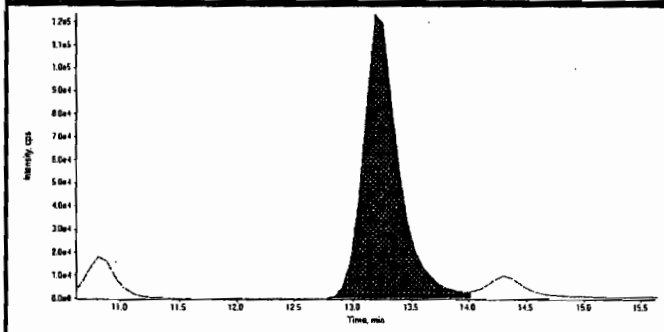
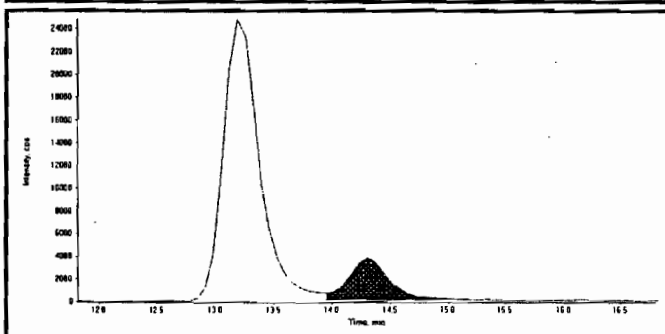
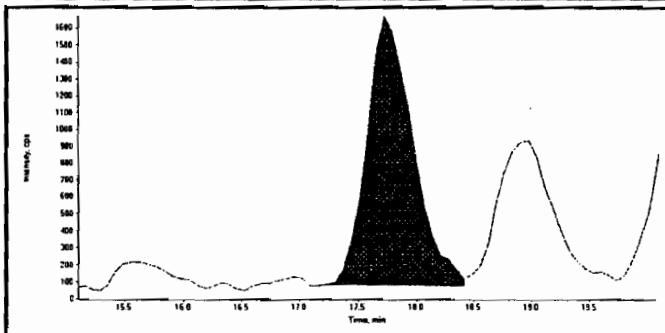
Data File	EXP0415045.wiff	**Acquisition Date**	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



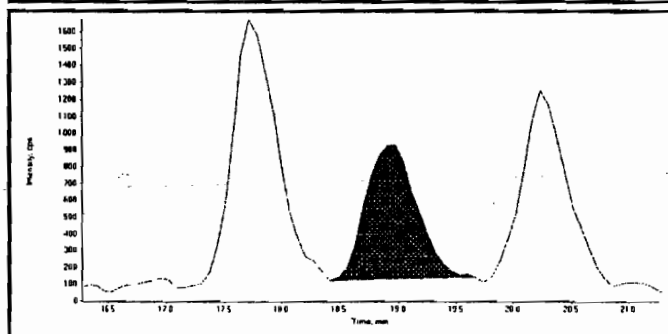
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.65e+006
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	104.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	9.45e+004
Manual Modification	Yes
Amount:	38.6 (ng/mL)
% Accuracy:	96.60



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	4.42e+004
Manual Modification	No
Amount:	43.9 (ng/mL)
% Accuracy:	110.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	19.0
Area Counts:	2.49e+004
Manual Modification	No
Amount:	46.7 (ng/mL)
% Accuracy:	117.00

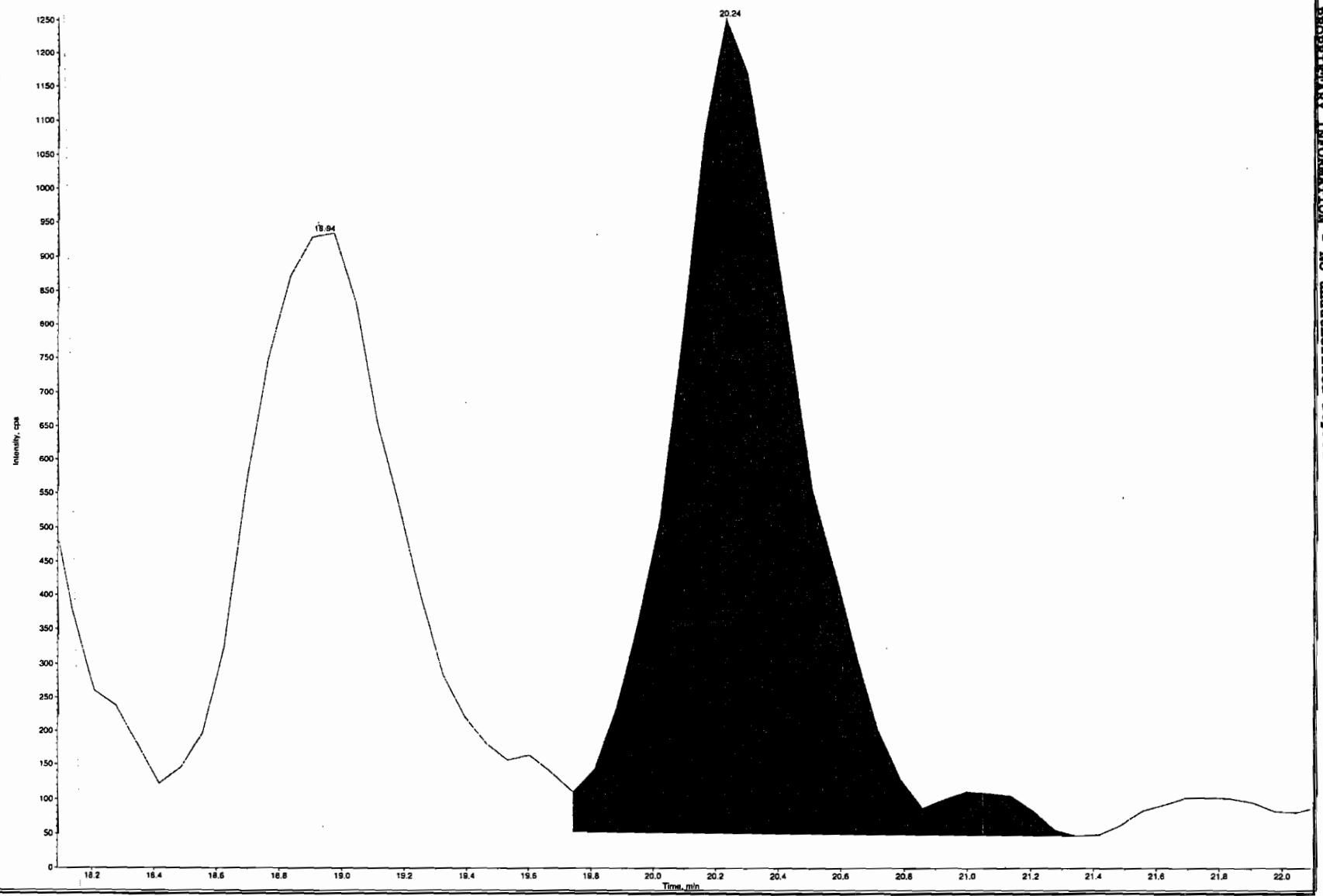
Before Ker 4/23/10

Sample Name: "WXX100415-57CR/" Sample ID: "[1]LER" File: "EXP0415045.wiff"
Peak Name: "3-Nitrotoluene" Mass(es): "137.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 46.1 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 5:09:20 AM

Modified: No
Proc. Algorithm: IntelliQuan - ICA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 20.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 20.2 min
Area: 1.57e+004 counts
Height: 1.20e+003 cps
Start Time: 19.7 min
End Time: 21.1 min



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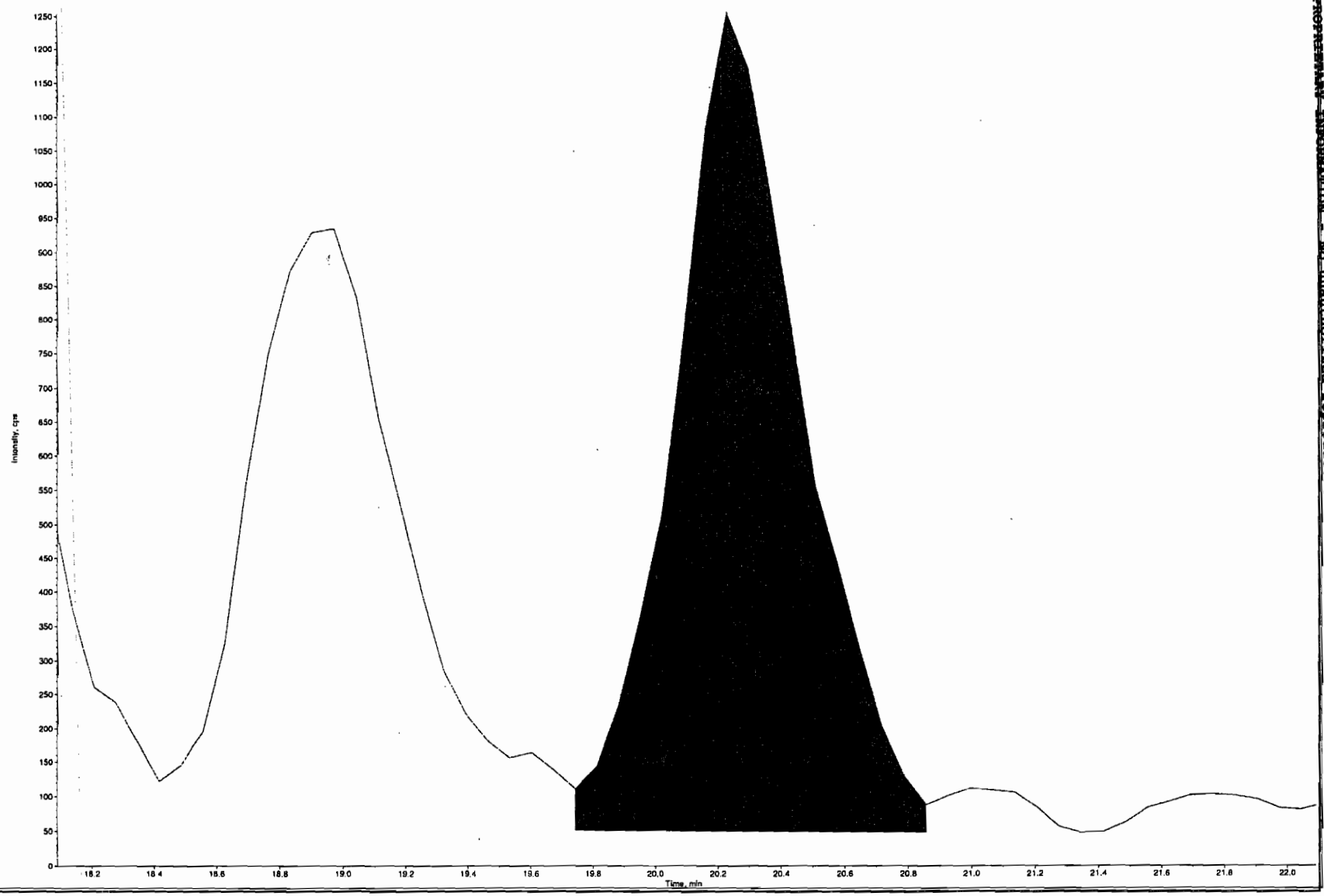
after Lcer 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415045.wiff"
Peak Name: "3-Nitrotoluene" Mass(es): "137.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	CC	
Concentration:	40.0	ng/mL
Calculated Conc:	44.7	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	5:09:20 AM	
Modified:	Yes	
RT Window:	60.0	sec
Expected RT:	20.1	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	20.2	min
Area:	3.44e+004	counts
Height:	1.21e+003	cps
Start Time:	19.7	min
End Time:	20.9	min



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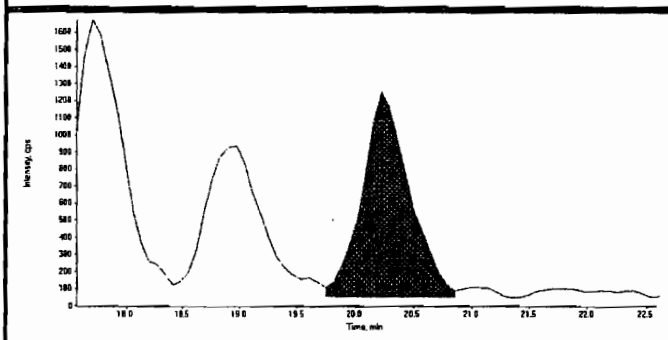
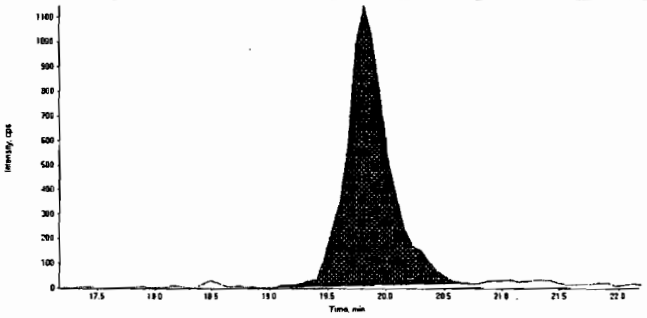
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415045.wiff	**Acquisition Date**	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	3.44e+004
Manual Modification	Yes
Amount:	44.7 (ng/mL)
% Accuracy:	112.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	2.90e+004
Manual Modification	No
Amount:	47.4 (ng/mL)
% Accuracy:	118.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 0509
Standard Number WXX100415-57CRI
Data File EXP0415045a

HMX	114.0
RDX	112.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	111.0
Tetryl	108.0
246-Trinitrotoluene	97.7
Nitrobenzene	116.0
34-dinitrotoluene	90.9
26-dinitrotoluene	81.5
24-dinitrotoluene	85.5
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	96.6
2-Nitrotoluene	110.0
4-Nitrotoluene	117.0
3-Nitrotoluene	112.0
PETN	118.0
TOTAL	1674.2
AVERAGE	104.6

hmm 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

for 4/23/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0415056.wiff

Analysis Date: 16-APR-10 09:54

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	636	106	
2,4,6-Trinitrotoluene	600	617	103	
2,4-Dinitrotoluene	600	623	104	
2,6-Dinitrotoluene	600	588	98	
2-Amino-4,6-dinitrotoluene	600	632	105	
3,4-Dinitrotoluene	300	292	97	
4-Amino-2,6-dinitrotoluene	600	685	114	
HMX	600	662	110	
Nitrobenzene	600	573	96	
PETN	600	719	120	
RDX	600	704	117	
Tetryl	600	674	112	
m-Dinitrobenzene	600	560	93	
m-Nitrotoluene	600	648	108	
o-Nitrotoluene	600	647	108	
p-Nitrotoluene	600	696	116	

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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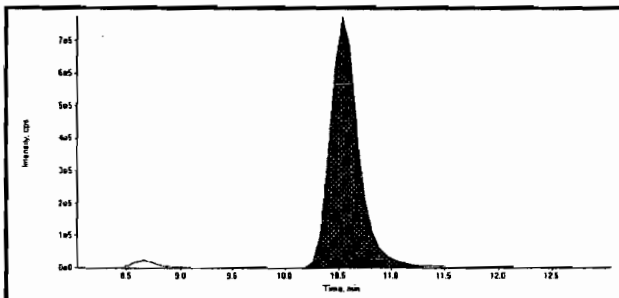
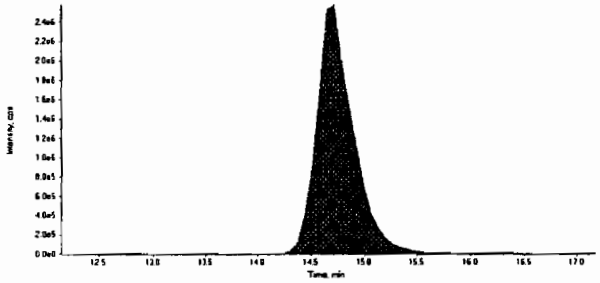
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

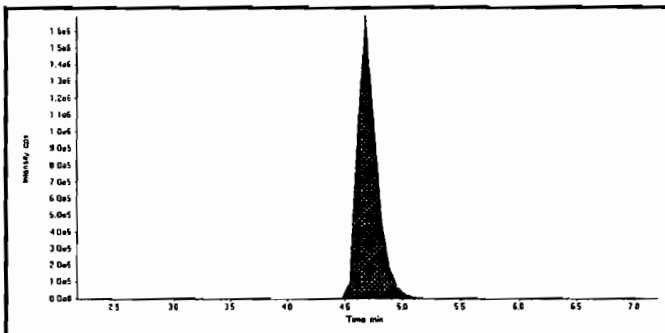
Data File	EXP0415056.wiff	**Acquisition Date**	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



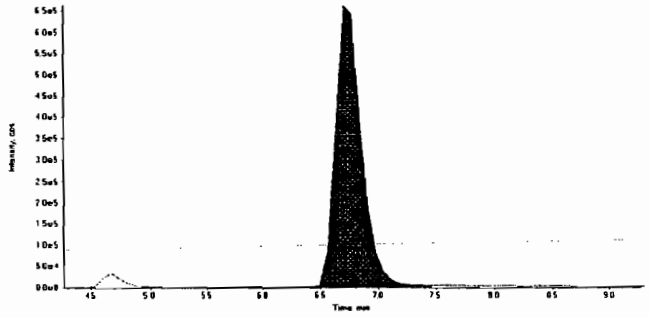
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	62300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.96e+007
Manual Modification	No
Amount:	662. (ng/mL)
% Accuracy:	110.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	1.05e+007
Manual Modification	No
Amount:	704. (ng/mL)
% Accuracy:	117.00

HMC 04/23/10

Lar 4/23/10

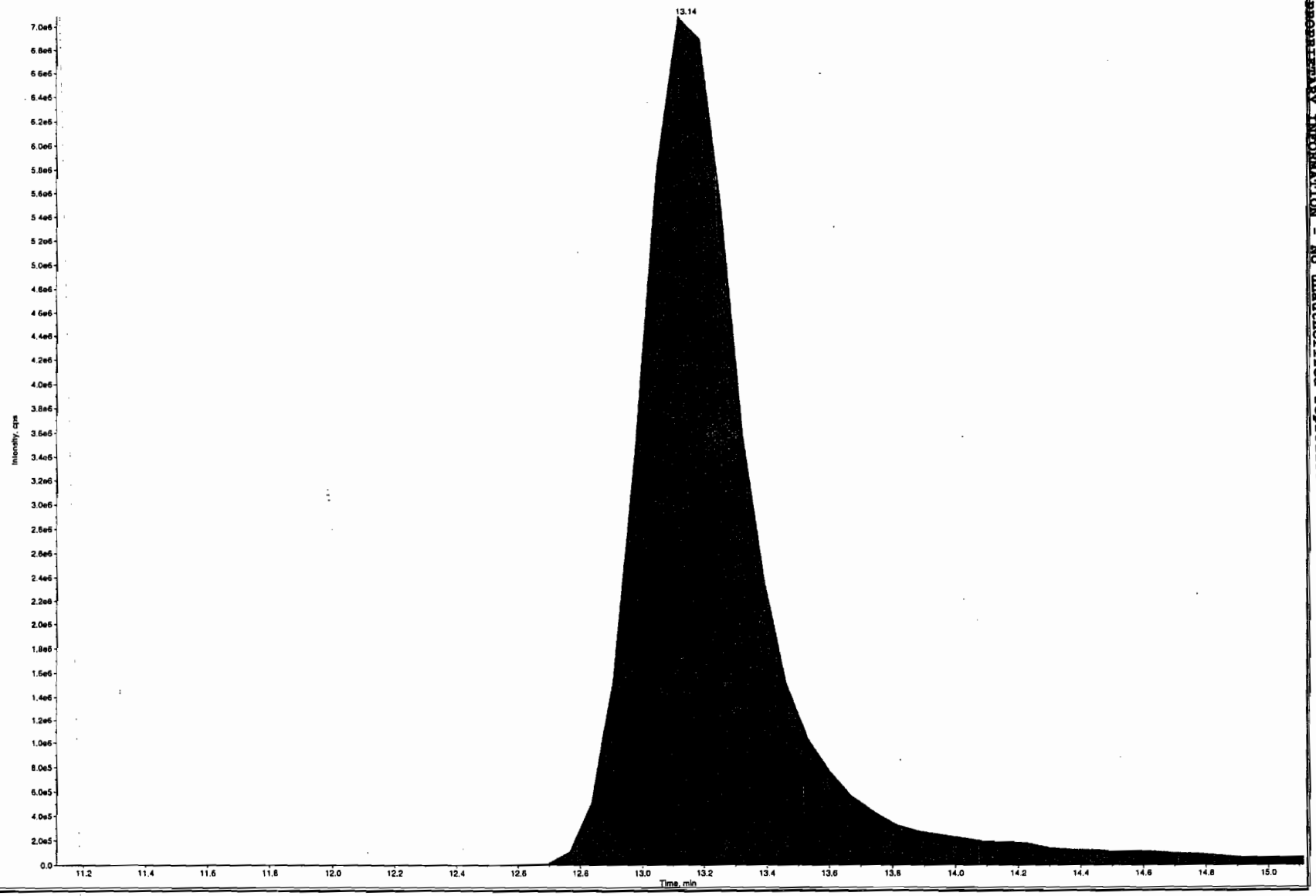
Before Scan 4/28/10

Sample Name "WXX100415-56CCV" Sample ID: "1)LER" File. "EXP0415056.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 600. ng/mL
Calculated Conc: 738. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 9:54:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.1 min
Area: 1.87e+008 counts
Height: 7.09e+006 cps
Start Time: 12.5 min
End Time: 16.4 min



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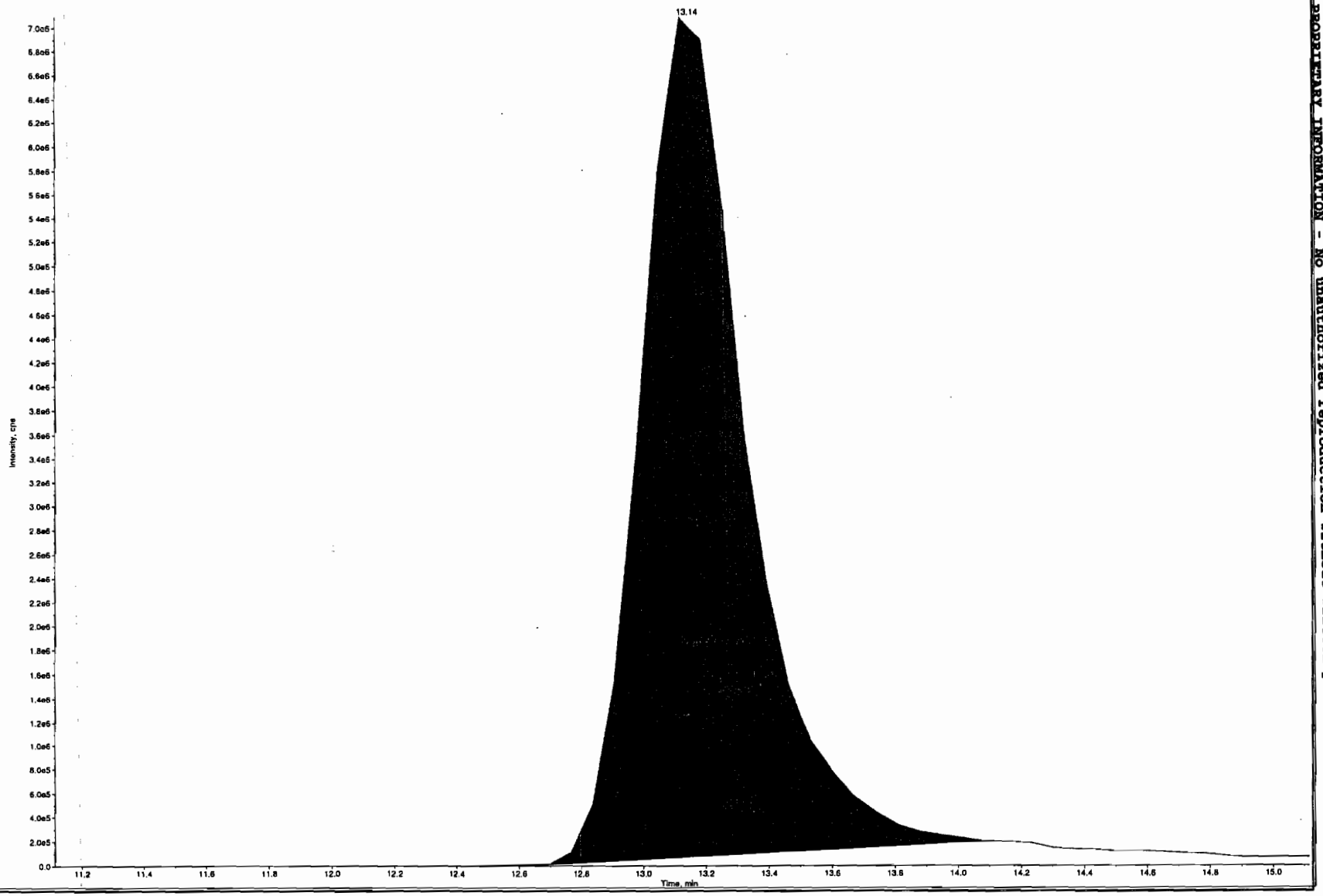
After Lan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415056.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 617. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 9:54:54 AM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 13.1 min
Area: 1.68e+008 counts
Height: 7.11e+006 cps
Start Time: 12.6 min
End Time: 14.1 min



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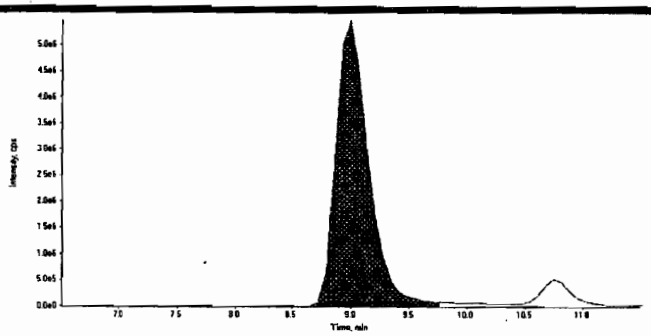
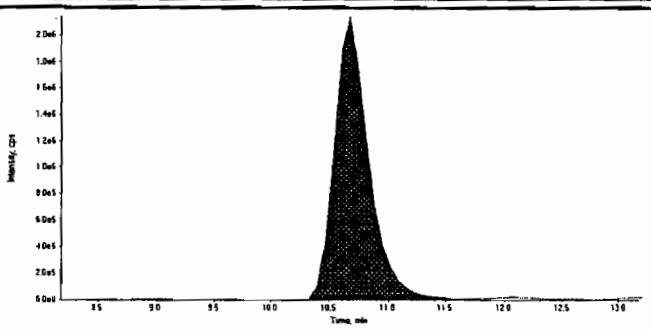
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

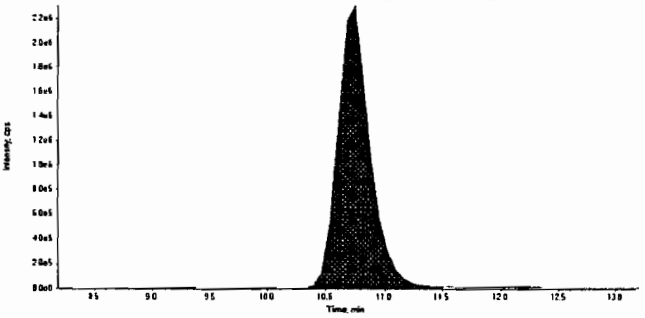
Data File	EXP0415056.wiff	**Acquisition Date**	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



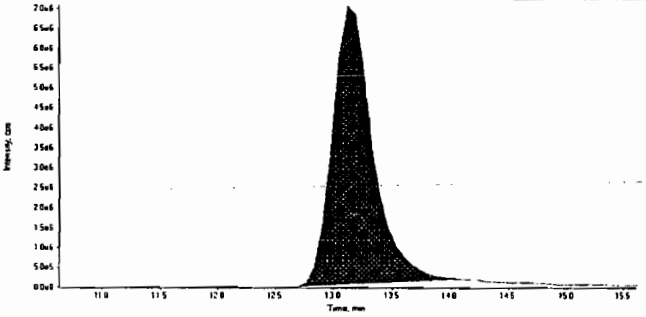
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.08e+008
Manual Modification	No
Amount:	636. (ng/mL)
% Accuracy:	106.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.41e+007
Manual Modification	No
Amount:	560. (ng/mL)
% Accuracy:	93.40



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.45e+007
Manual Modification	No
Amount:	674. (ng/mL)
% Accuracy:	112.00



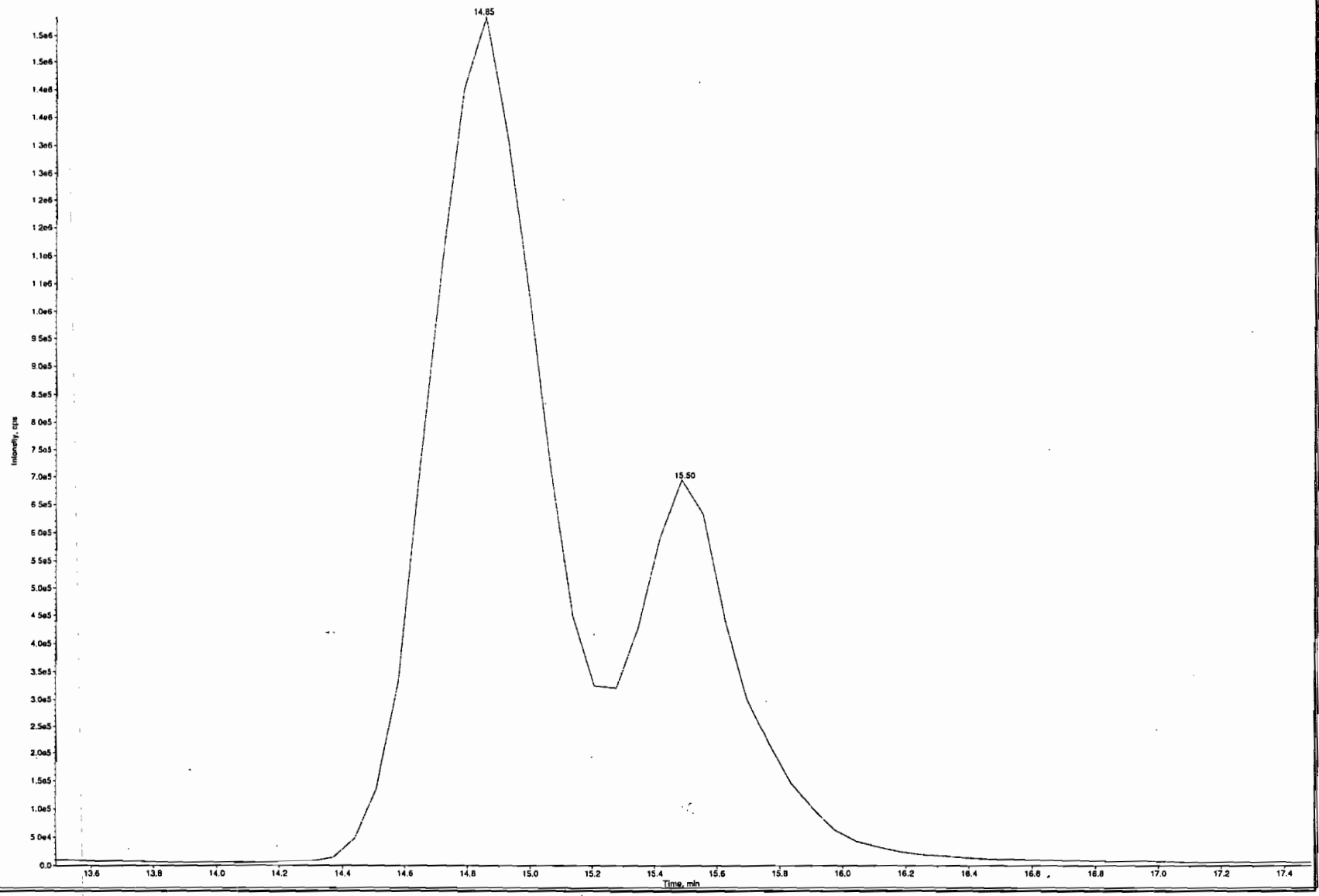
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	1.68e+008
Manual Modification	Yes
Amount:	617. (ng/mL)
% Accuracy:	103.00

Before Acer 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415056.wiff"
Peak Name: "24-dinitrotoluene" Mass(es) "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 9:54:54 AM

Modified: No



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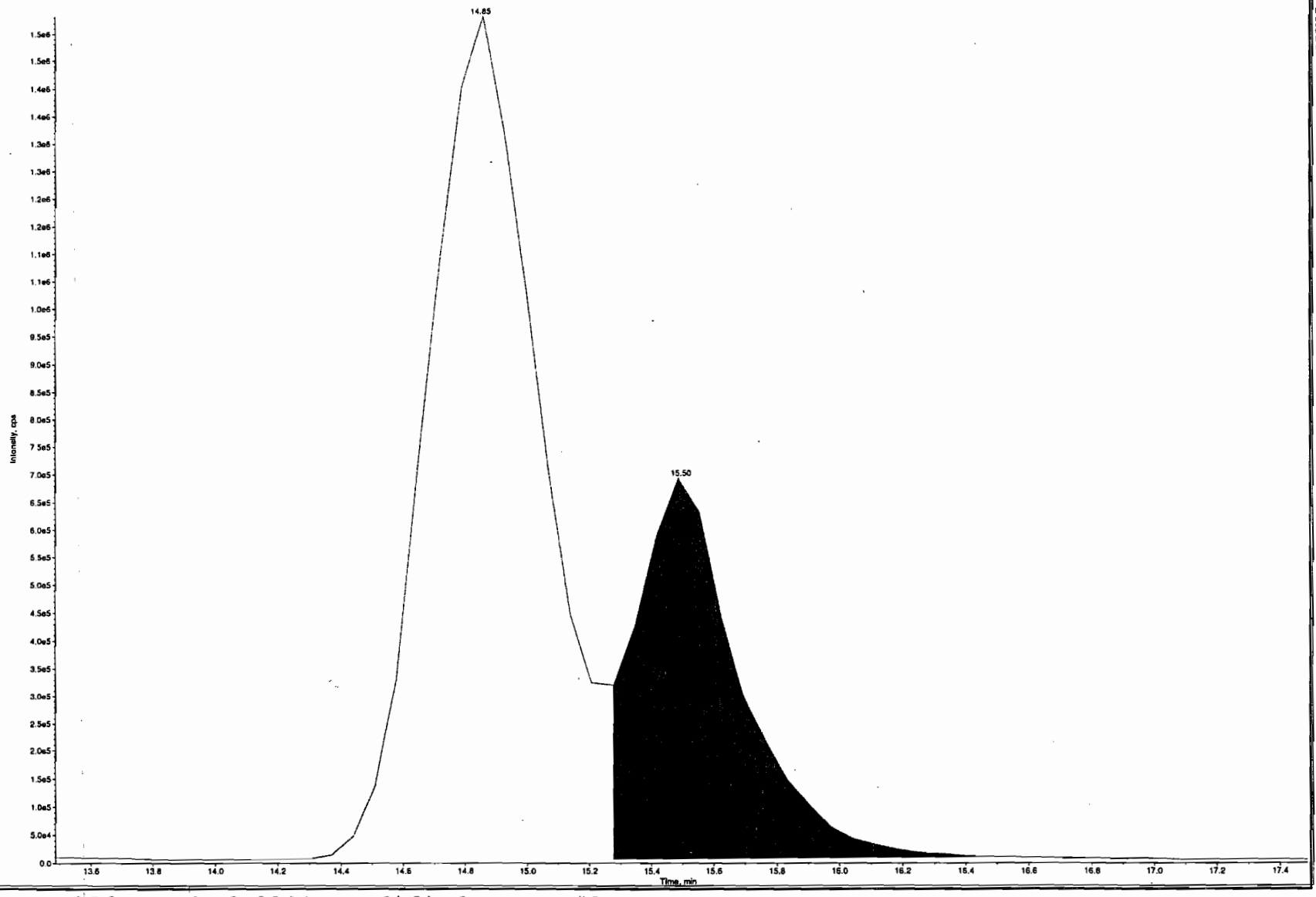
after Scan 4/23/10

Sample Name: "WXX100415-58CCV" Sample ID: "1|LER" File: "EXP0415056.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	623.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	9:54:54 AM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	15.5	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	15.5	min
Area:	1.59e+007	counts
Height:	6.86e+005	cps
Start Time:	15.3	min
End Time:	16.5	min



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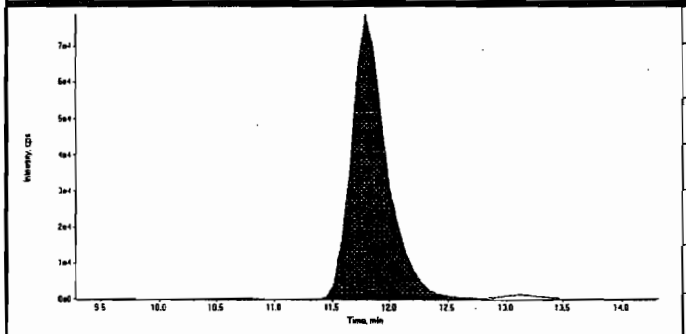
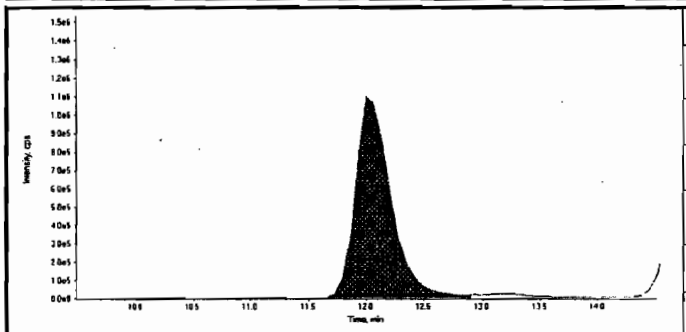
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

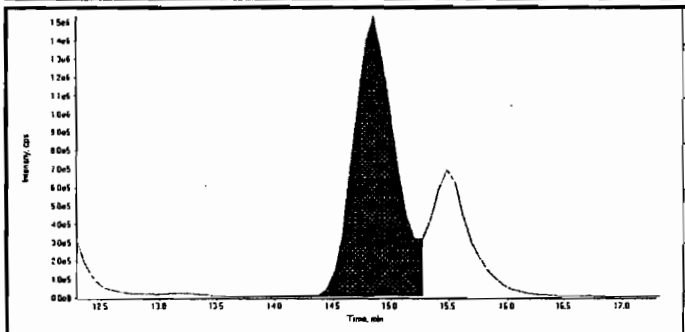
Data File	EXP0415056.wiff	**Acquisition Date**	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



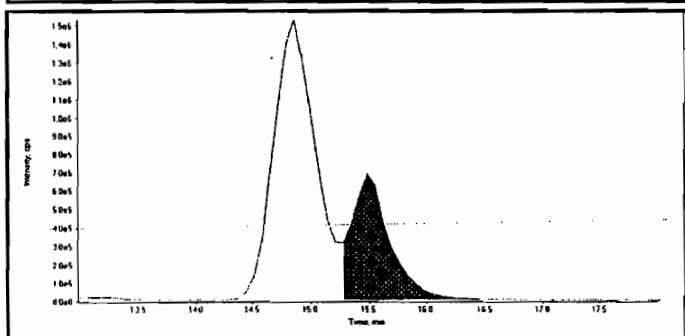
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	1.70e+006
Manual Modification	No
Amount:	573. (ng/mL)
% Accuracy:	95.50



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	2.39e+007
Manual Modification	No
Amount:	292. (ng/mL)
% Accuracy:	97.40



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.90e+007
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	98.10



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.59e+007
Manual Modification	Yes
Amount:	623. (ng/mL)
% Accuracy:	104.00

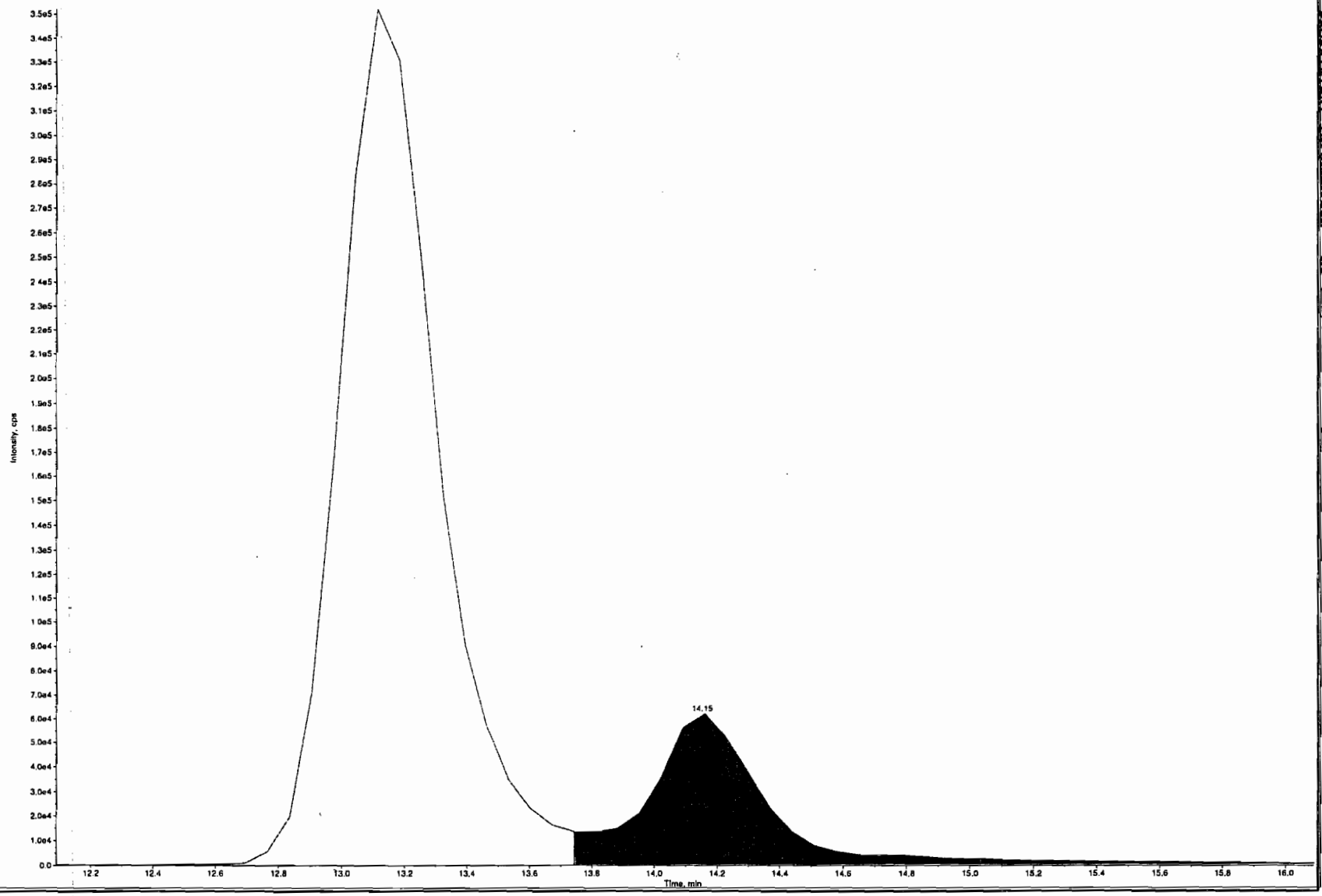
Before Ser 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415056.wiff"
Peak Name: "2-Amino-46-dnitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 700. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 9:54:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 1.63e+006 counts
Height: 6.18e+004 cps
Start Time: 13.7 min
End Time: 16.4 min



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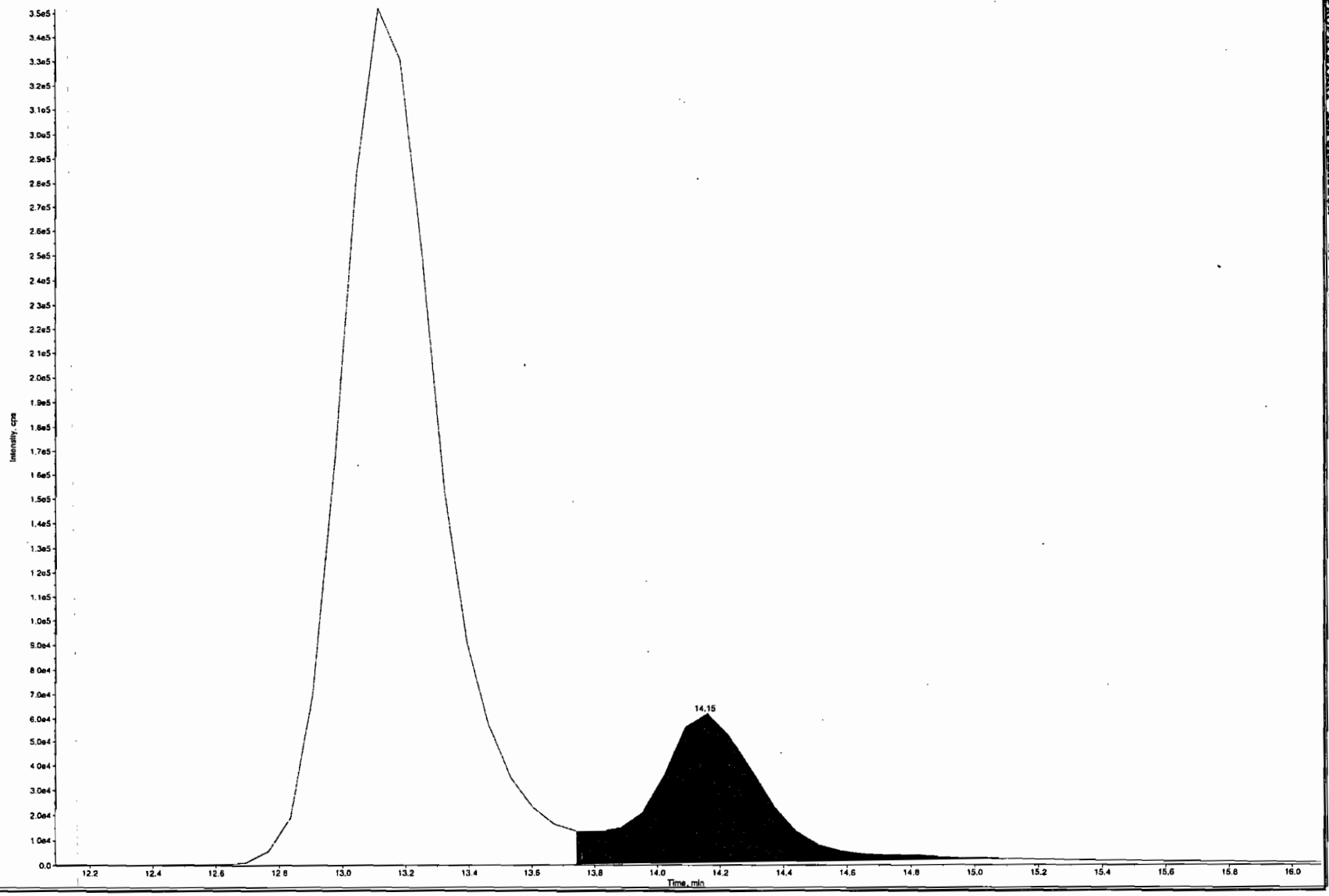
after Scan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415056.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	632.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	9:56:54 AM	
Modified:	Yes	
RT Window:	10.0	sec
Expected RT:	14.1	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	14.2	min
Area:	1.47e+006	counts
Height:	6.14e+004	cps
Start Time:	13.7	min
End Time:	15.1	min



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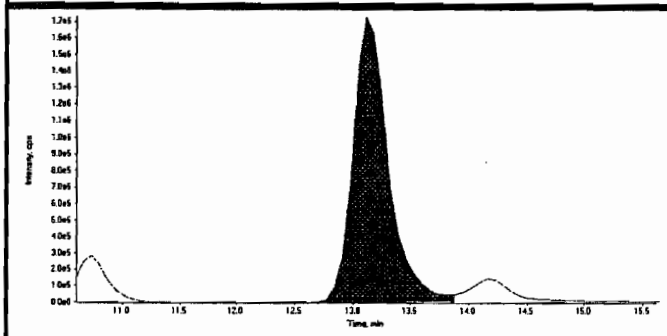
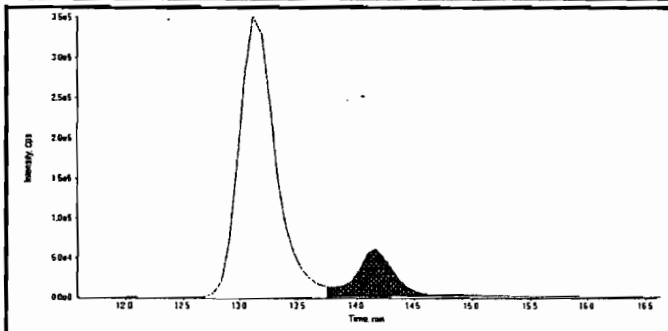
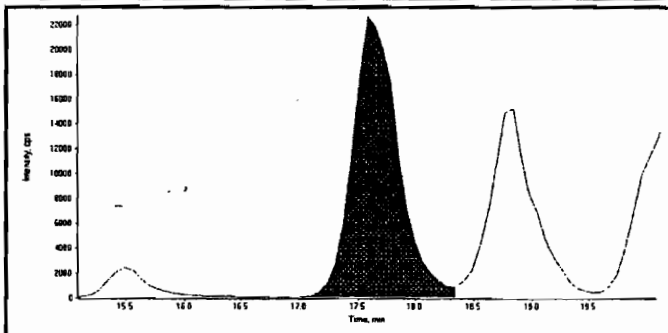
Data File	EXP0415056.wiff	**Acquisition Date**	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



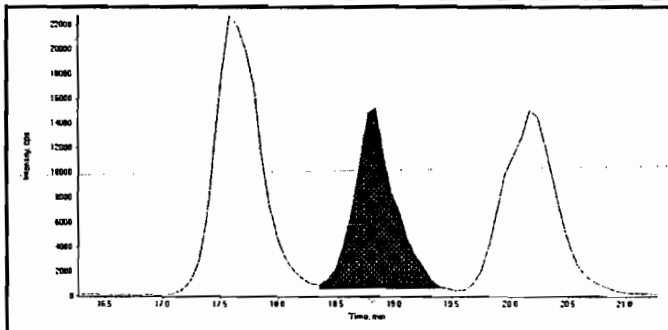
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	3.80e+007
Manual Modification	No
Amount:	685. (ng/mL)
% Accuracy:	114.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.47e+006
Manual Modification	Yes
Amount:	632. (ng/mL)
% Accuracy:	105.00



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	6.35e+005
Manual Modification	No
Amount:	647. (ng/mL)
% Accuracy:	108.00

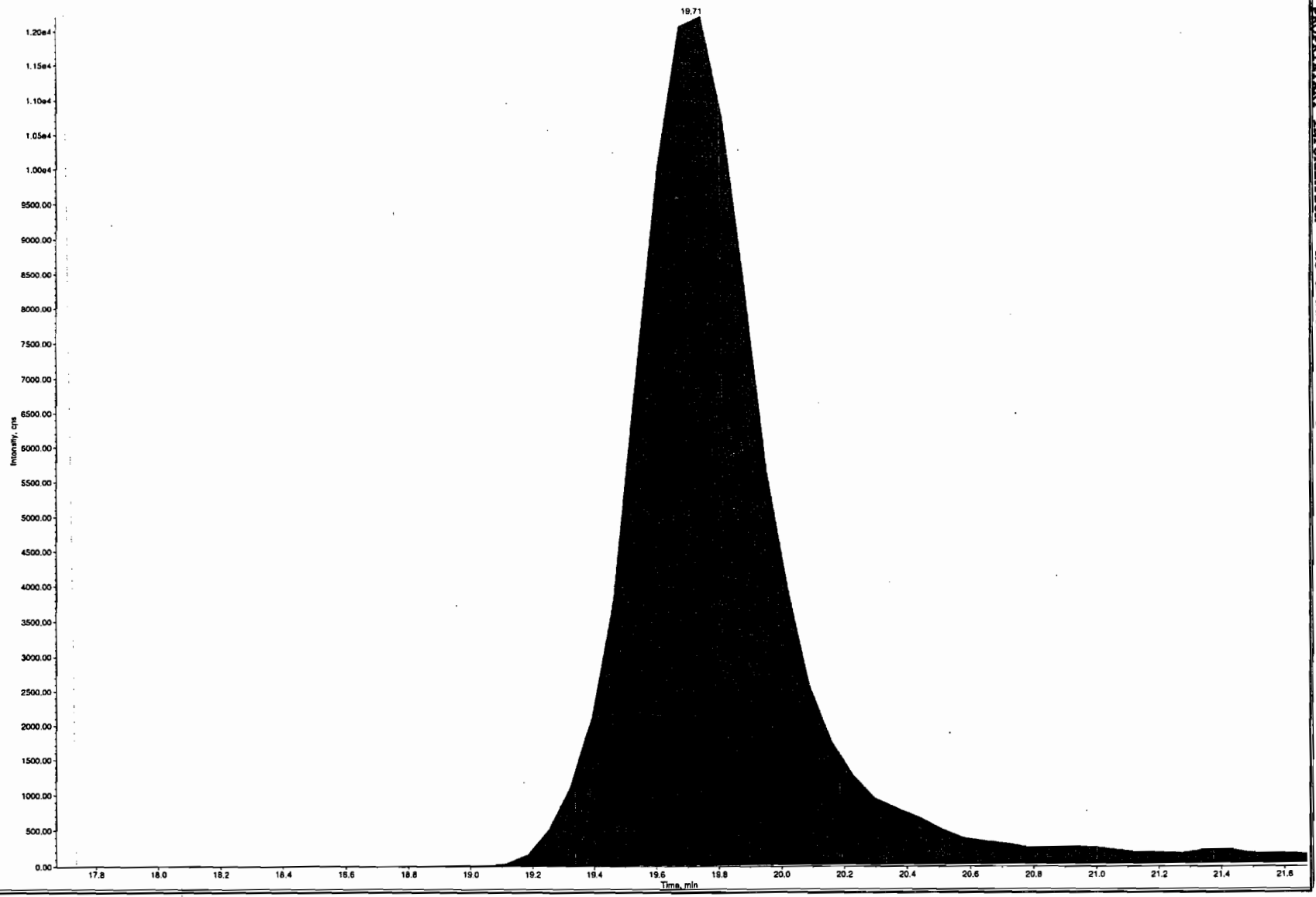


Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	3.64e+005
Manual Modification	No
Amount:	696. (ng/mL)
% Accuracy:	116.00

Before Ran 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "11|LER" File: "EXP0415056.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	747.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	9:54:54 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	100.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	60.0	sec
Expected RT:	19.7	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	19.7	min
Area:	1.79e+005	counts
Height:	1.22e+004	cps
Start Time:	18.5	min
End Time:	22.8	min



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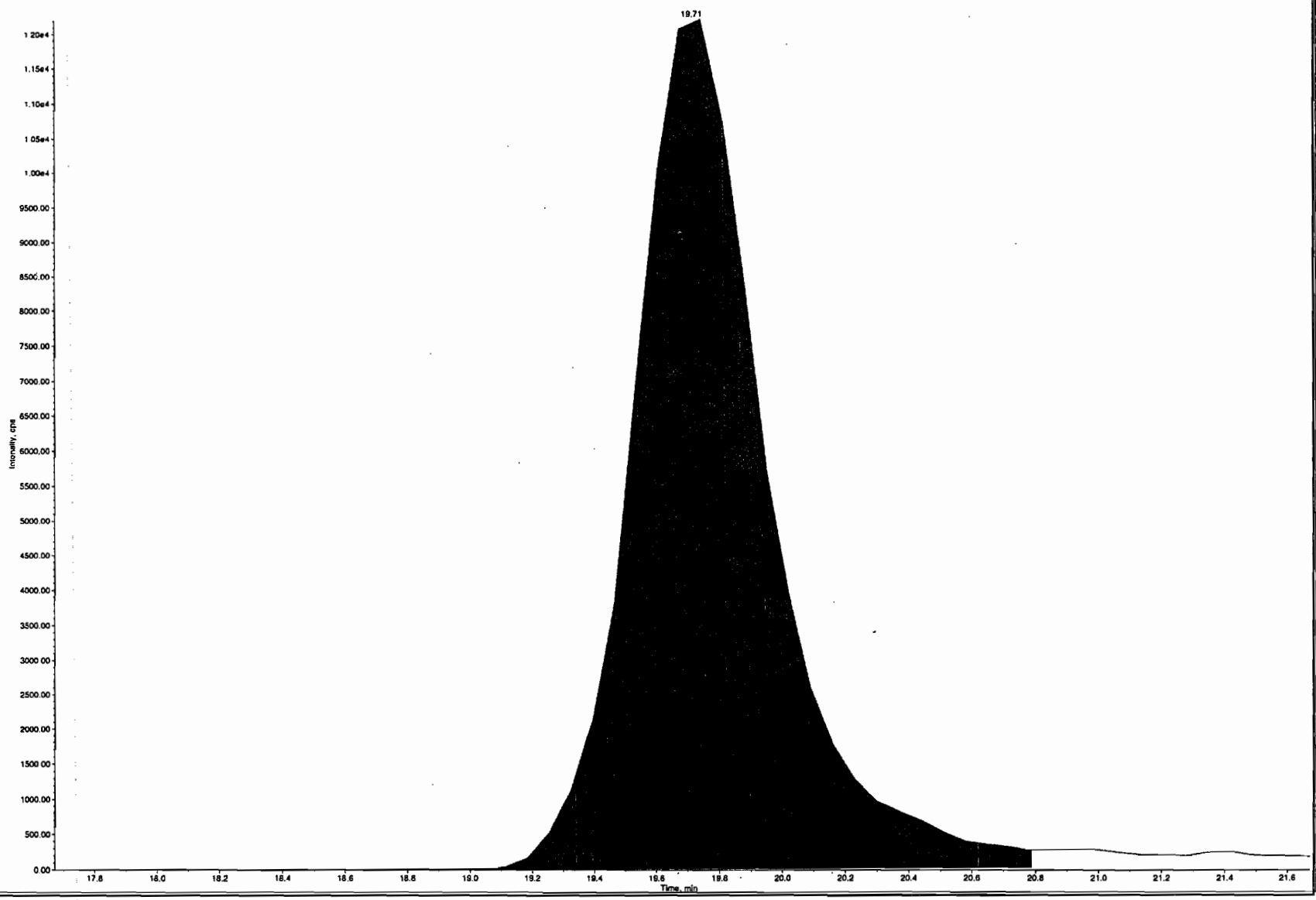
after Ken 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415056.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	719.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	9:54:54 AM	
Modified:	Yes	
RT Window:	60.0	sec
Expected RT:	19.7	min
Use Relative RT:	No	.
Int. Type:	Manual	
Retention Time:	19.7	min
Area:	1.65e+005	counts
Height:	1.33e+004	cps
Start Time:	19.0	min
End Time:	20.8	min



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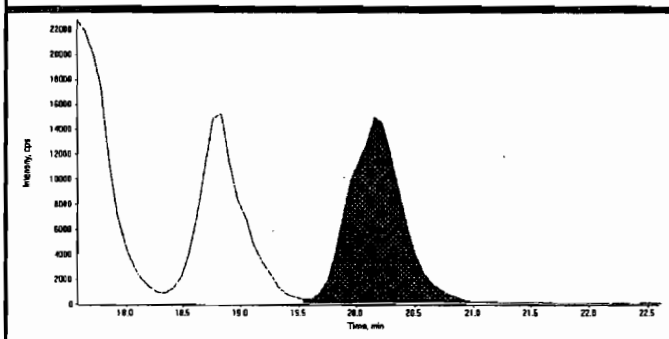
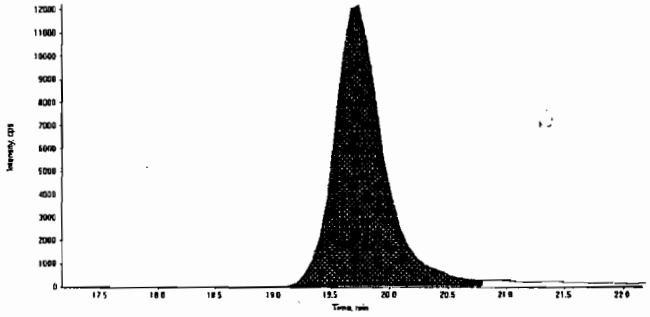
Data File	EXP0415056.wiff	**Acquisition Date**	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	4.81e+005
Manual Modification	No
Amount:	648. (ng/mL)
% Accuracy:	108.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	3.65e+005
Manual Modification	Yes
Amount:	719. (ng/mL)
% Accuracy:	120.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 0954
Standard Number WXX100415-56CCV
Data File EXP0415056a

HMX	110.0
RDX	117.0
135-Trinitrobenzene	106.0
13-Dinitrobenzene	93.4
Tetryl	112.0
246-Trinitrotoluene	103.0
Nitrobenzene	95.5
34-dinitrotoluene	97.4
26-dinitrotoluene	98.1
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	114.0
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	108.0
4-Nitrotoluene	116.0
3-Nitrotoluene	108.0
PETN	120.0
TOTAL	1707.4
AVERAGE	106.7

Hnm 04/23/10

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): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415058.wiff

Analysis Date: 16-APR-10 10:46

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	36	90	
2,4,6-Trinitrotoluene	40	42.2	106	
2,4-Dinitrotoluene	40	37.3	93	
2,6-Dinitrotoluene	40	37.8	95	
2-Amino-4,6-dinitrotoluene	40	37.3	93	
3,4-Dinitrotoluene	20	21.6	108	
4-Amino-2,6-dinitrotoluene	40	39.7	99	
HMX	40	46.5	116	
Nitrobenzene	40	47.9	120	
PETN	40	41.4	103	
RDX	40	43.1	108	
Tetryl	40	40.4	101	
m-Dinitrobenzene	40	42.3	106	
m-Nitrotoluene	40	42	105	
o-Nitrotoluene	40	46.5	116	
p-Nitrotoluene	40	49	123	

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

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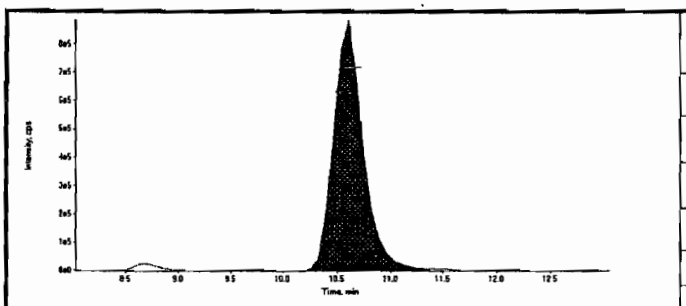
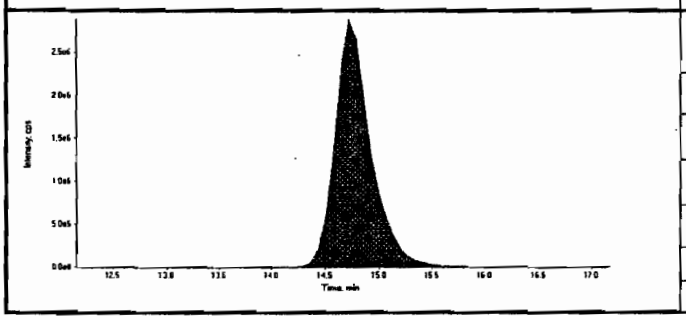
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

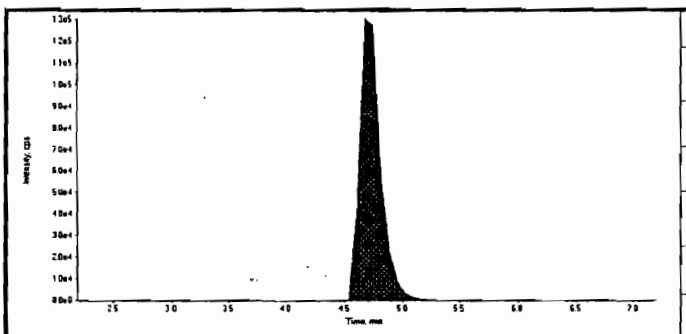
Data File	EXP0415058.wiff	**Acquisition Date**	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



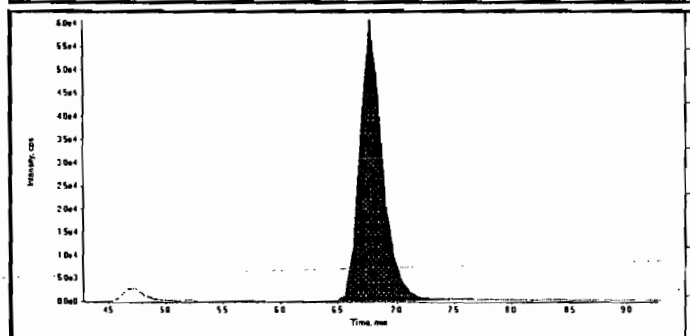
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	67100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.66e+006
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	116.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.30e+005
Manual Modification	No
Amount:	43.1 (ng/mL)
% Accuracy:	108.00

Hmw 04/23/10

Sled 4/23/10

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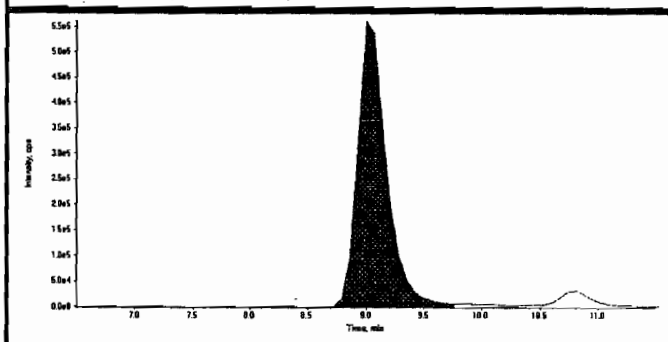
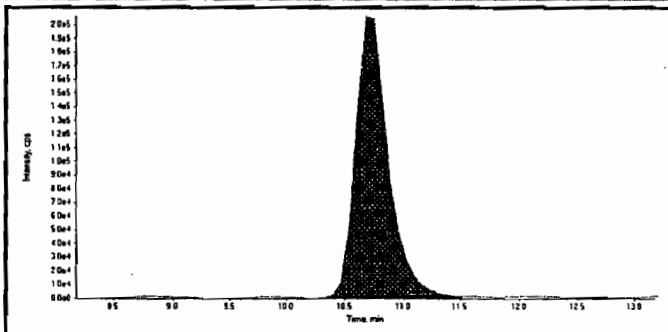
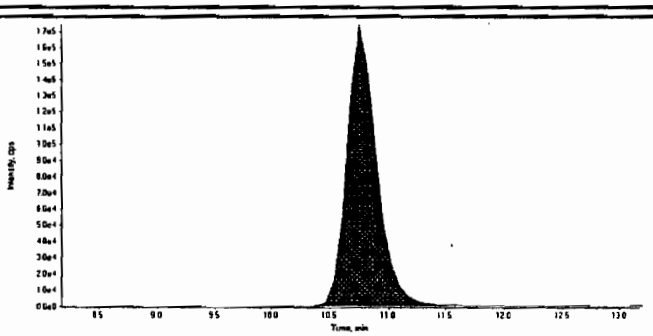
Data File	EXP0415058.wiff	**Acquisition Date**	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



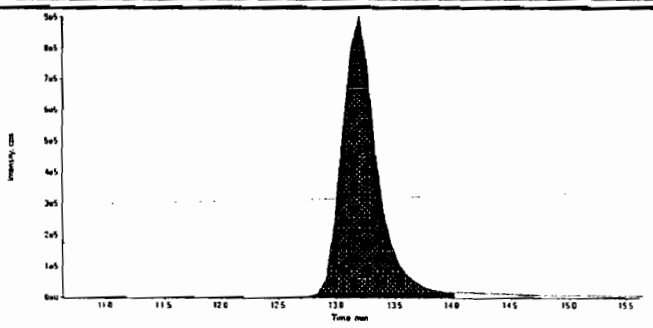
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	9.81e+006
Manual Modification	No
Amount:	36.0 (ng/mL)
% Accuracy:	90.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.08e+006
Manual Modification	No
Amount:	42.3 (ng/mL)
% Accuracy:	106.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.11e+006
Manual Modification	No
Amount:	40.4 (ng/mL)
% Accuracy:	101.00



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.91e+007
Manual Modification	No
Amount:	42.2 (ng/mL)
% Accuracy:	106.00

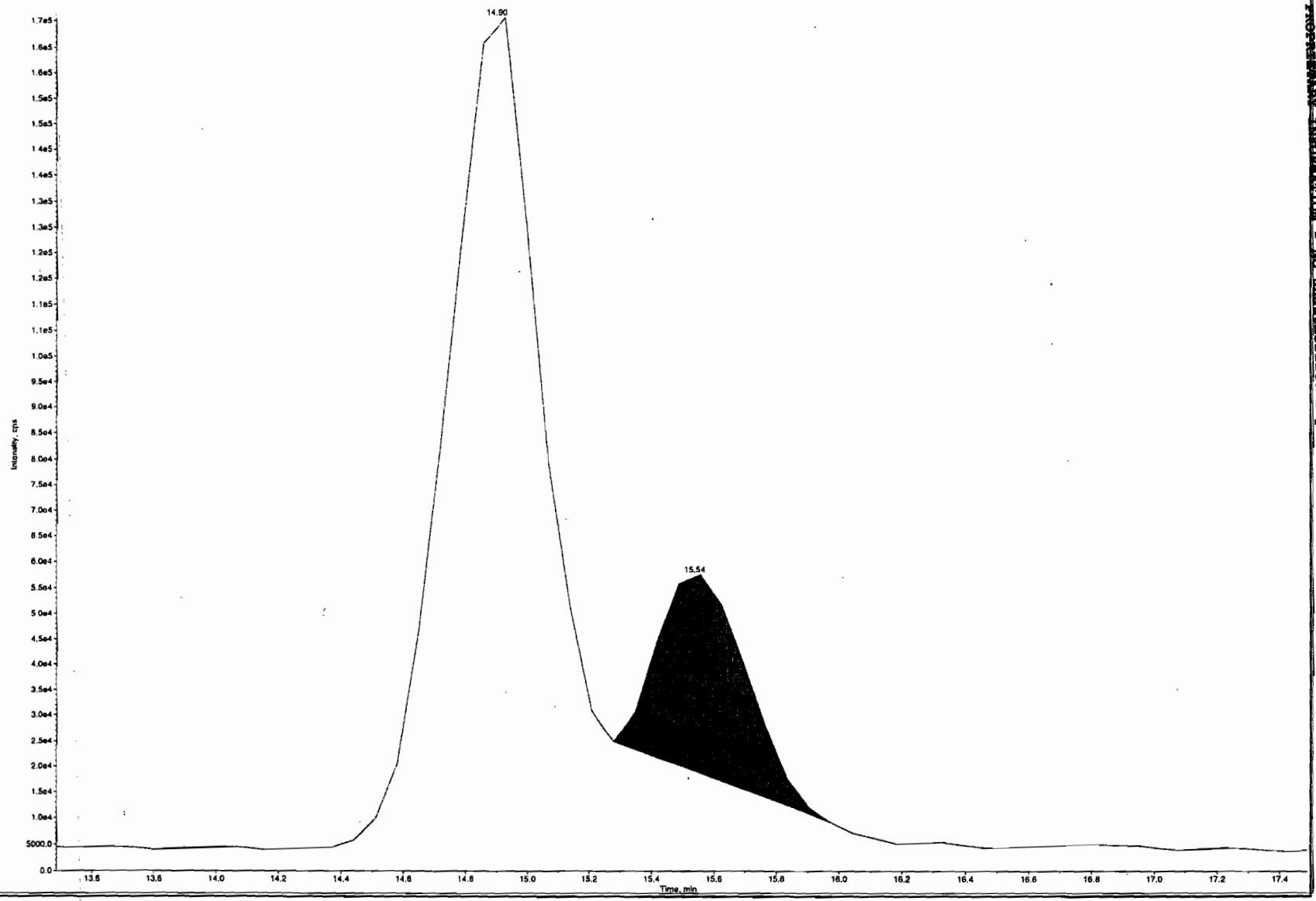
Before Clean 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415056.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 17.7 ng/mL
Acq. Date: 4/15/2010
Acq. Time: 10:46:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - ICA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 15.5 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 15.6 min
Area: 7.75e+005 counts
Height: 1.91e+004 cps
Start Time: 15.3 min
End Time: 16.0 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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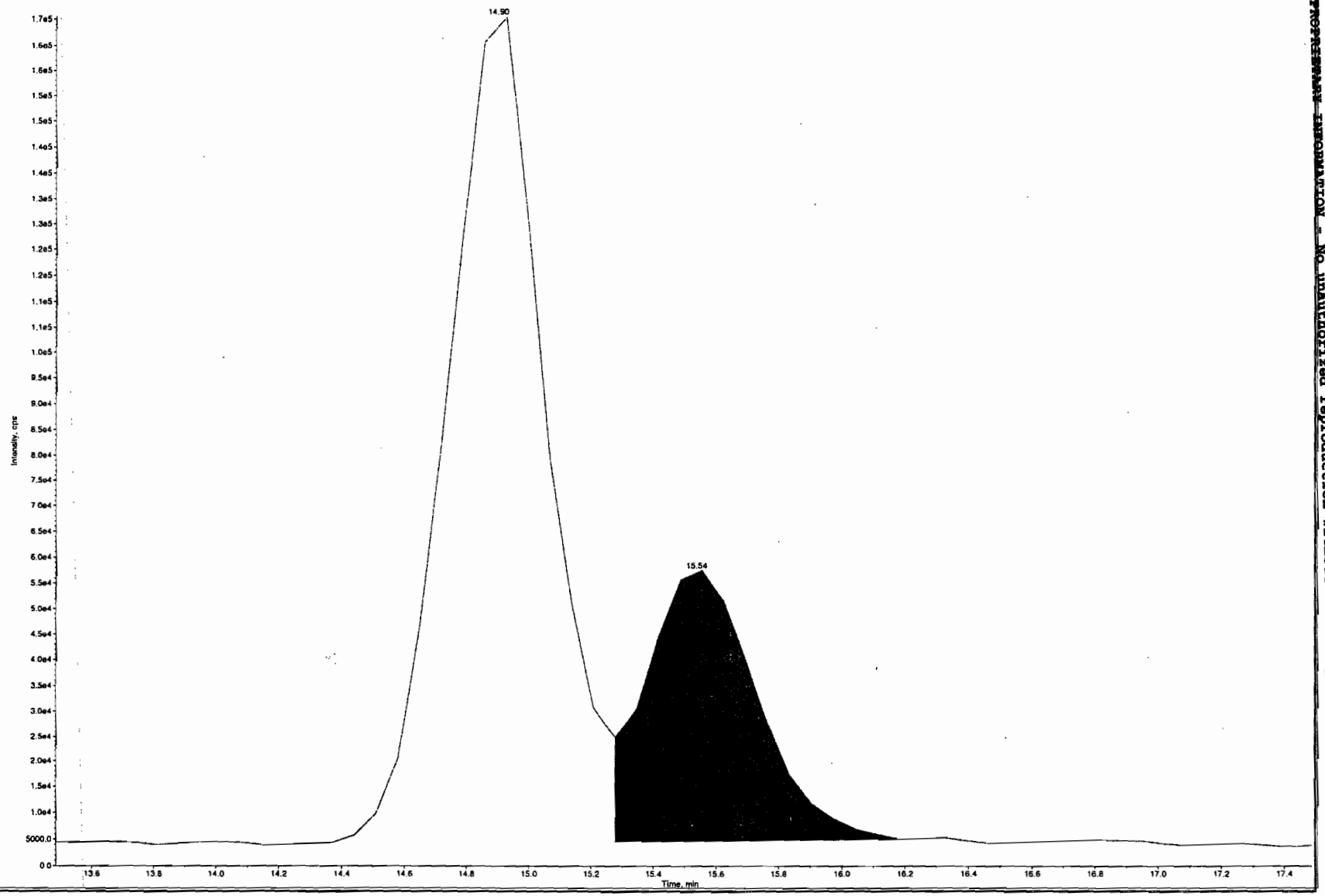
after Dan 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415058 wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 37.3 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 10:46:59 AM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 15.5 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 15.5 min
Area: 1.10e+006 counts
Height: 5.31e+004 cps
Start Time: 15.3 min
End Time: 16.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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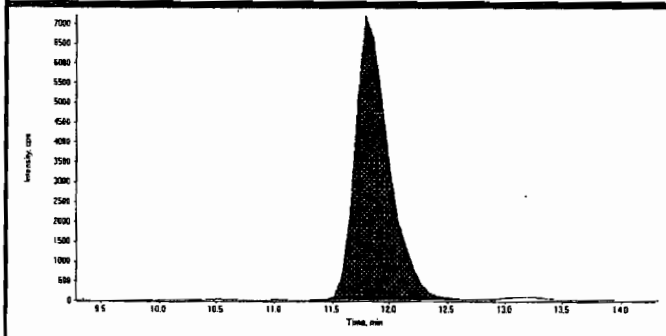
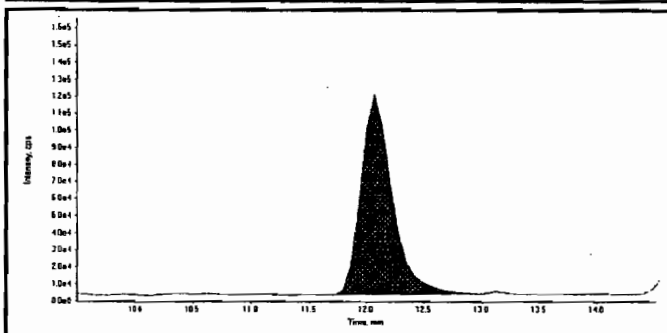
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

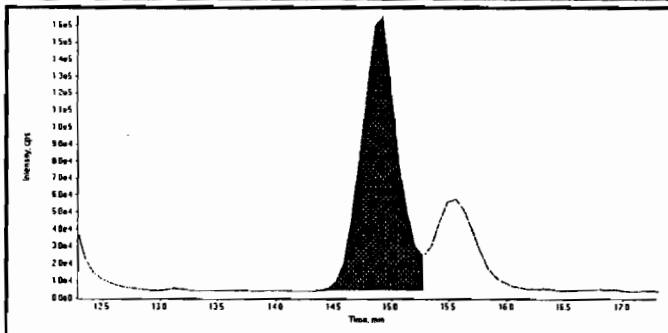
Data File	EXP0415058.wiff	**Acquisition Date**	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



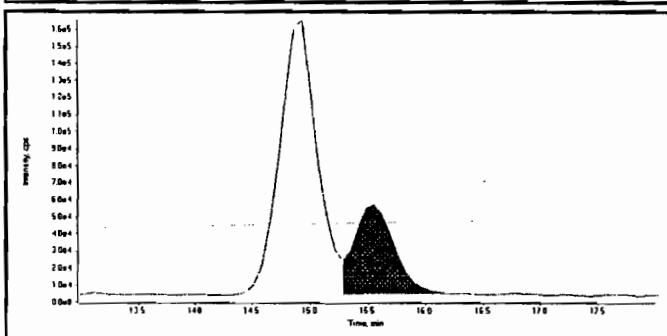
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	1.49e+005
Manual Modification	No
Amount:	47.9 (ng/mL)
% Accuracy:	120.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.28e+006
Manual Modification	No
Amount:	21.6 (ng/mL)
% Accuracy:	108.00



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.63e+006
Manual Modification	No
Amount:	37.8 (ng/mL)
% Accuracy:	94.50



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.30e+006
Manual Modification	Yes
Amount:	37.3 (ng/mL)
% Accuracy:	93.30

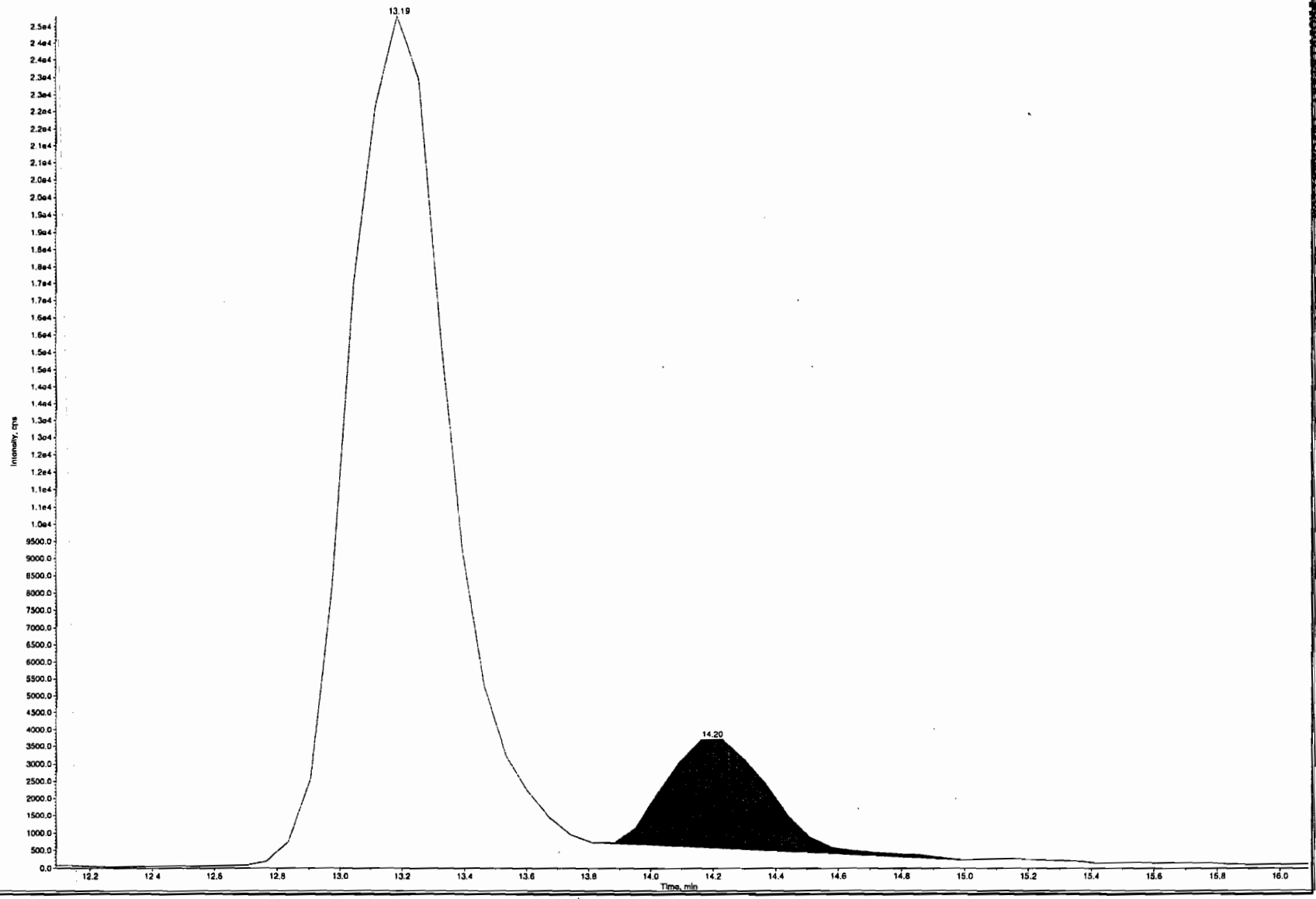
Before Ker 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415058.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 29.0 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 10:46:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 7.26e+004 counts
Height: 3.14e+003 cps
Start Time: 13.8 min
End Time: 15.0 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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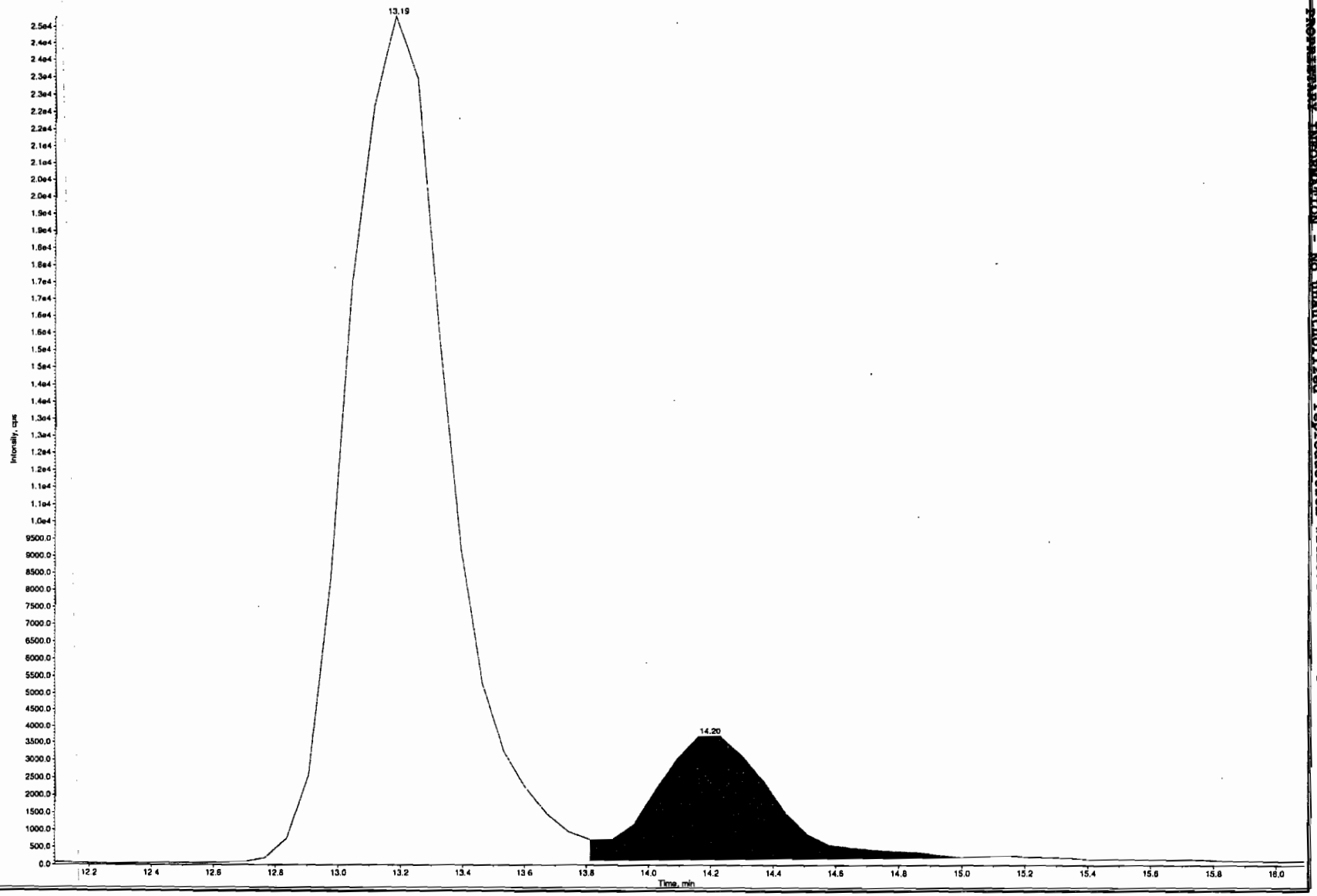
after Dan 4/23/10

Sample Name: "WXX100415-S7CRI" Sample ID "[1]LER" File: "EXP0415058.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 37.1 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 10:46:59 AM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.2 min
Area: 9.36e+004 counts
Height: 3.59e+003 cps
Start Time: 13.8 min
End Time: 15.0 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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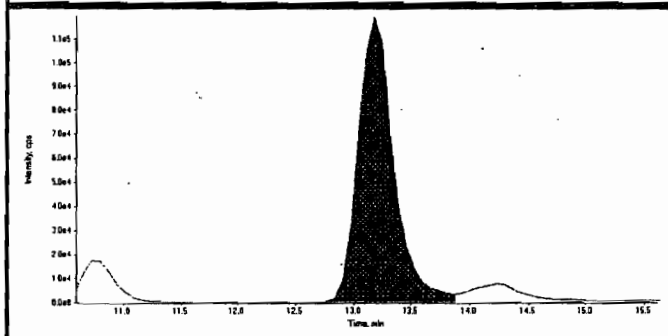
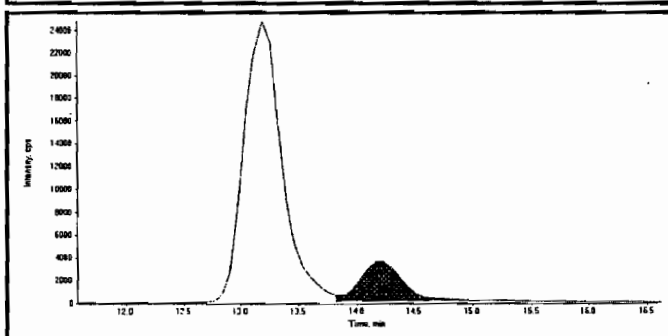
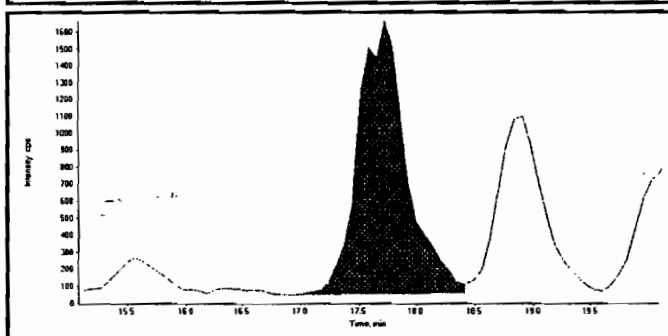
Data File	EXP0415058.wiff	**Acquisition Date**	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



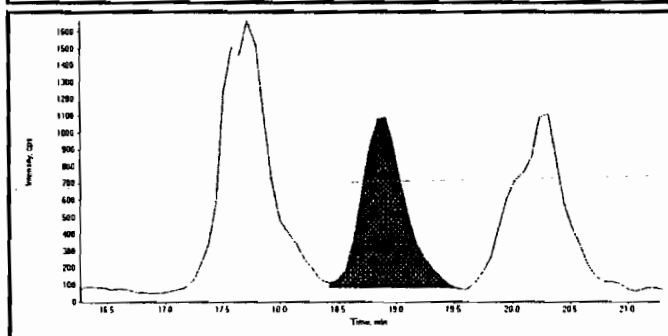
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.62e+006
Manual Modification	No
Amount:	39.7 (ng/mL)
% Accuracy:	99.40



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	9.36e+004
Manual Modification	Yes
Amount:	37.3 (ng/mL)
% Accuracy:	93.40



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	4.82e+004
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	116.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.9
Area Counts:	2.70e+004
Manual Modification	No
Amount:	49.0 (ng/mL)
% Accuracy:	123.00

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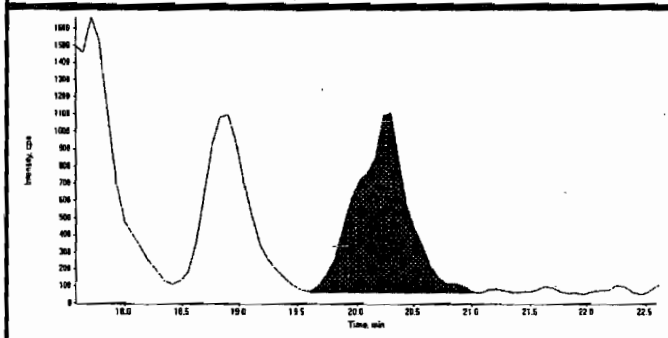
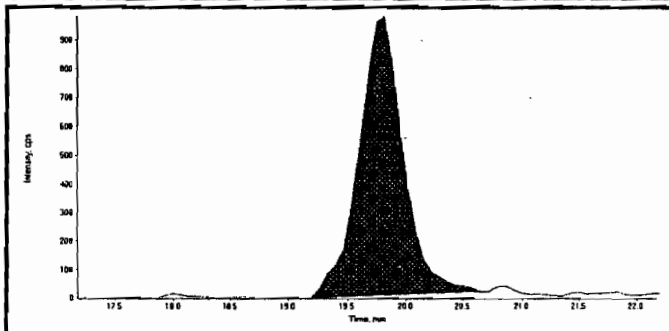
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

Data File	EXP0415058.wiff	**Acquisition Date**	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	3.32e+004
Manual Modification	No
Amount:	42.0 (ng/mL)
% Accuracy:	105.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	2.65e+004
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	103.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 1046
Standard Number WXX100415-57CRI
Data File EXP0415058a

HMX	116.0
RDX	108.0
135-Trinitrobenzene	90.0
13-Dinitrobenzene	106.0
Tetryl	101.0
246-Trinitrotoluene	106.0
Nitrobenzene	120.0
34-dinitrotoluene	108.0
26-dinitrotoluene	94.5
24-dinitrotoluene	93.3
4-Amino-26-dinitrotoluene	99.4
2-Amino-46-dinitrotoluene	93.4
2-Nitrotoluene	116.0
4-Nitrotoluene	123.0
3-Nitrotoluene	105.0
PETN	103.0
TOTAL	1682.6
AVERAGE	105.2

HMM 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/23/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415063.wiff

Analysis Date: 16-APR-10 12:57

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	644	107	
2,4,6-Trinitrotoluene	600	631	105	
2,4-Dinitrotoluene	600	610	102	
2,6-Dinitrotoluene	600	642	107	
2-Amino-4,6-dinitrotoluene	600	580	97	
3,4-Dinitrotoluene	300	239	80	
4-Amino-2,6-dinitrotoluene	600	605	101	
HMX	600	646	108	
Nitrobenzene	600	579	97	
PETN	600	710	118	
RDX	600	748	125	
Tetryl	600	587	98	
m-Dinitrobenzene	600	564	94	
m-Nitrotoluene	600	606	101	
o-Nitrotoluene	600	538	90	
p-Nitrotoluene	600	610	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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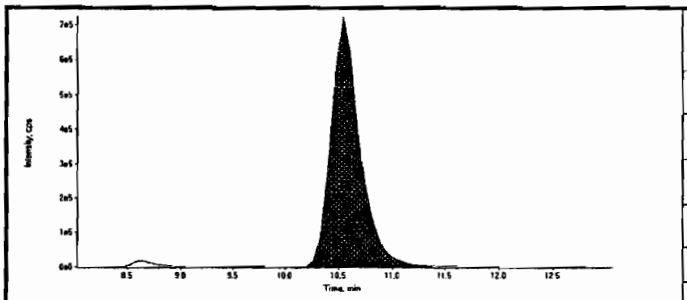
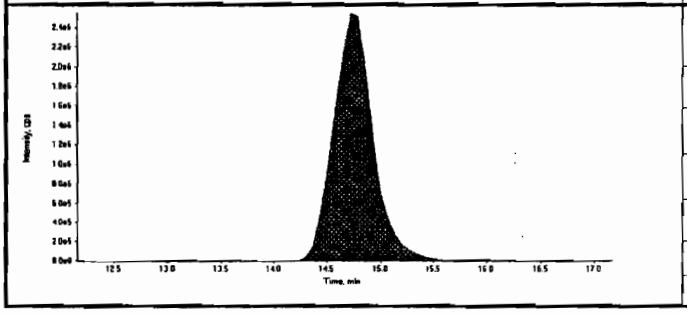
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

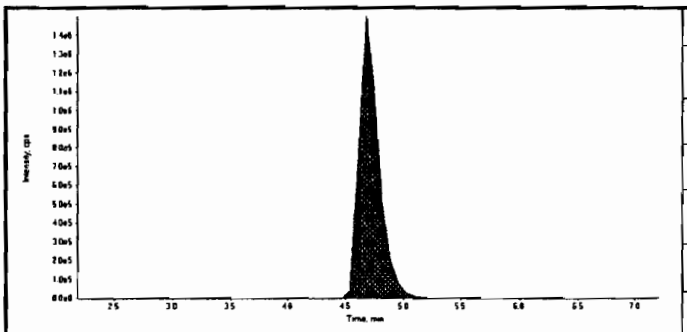
Data File	EXP0415063.wiff	**Acquisition Date**	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



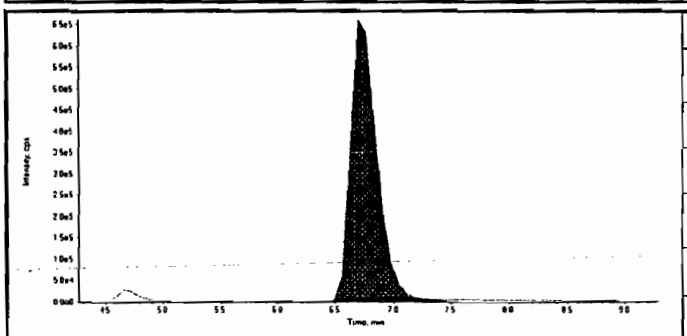
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.80e+007
Manual Modification	No
Amount:	646. (ng/mL)
% Accuracy:	108.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	1.06e+007
Manual Modification	No
Amount:	748. (ng/mL)
% Accuracy:	125.00

4/23/10

4/23/10

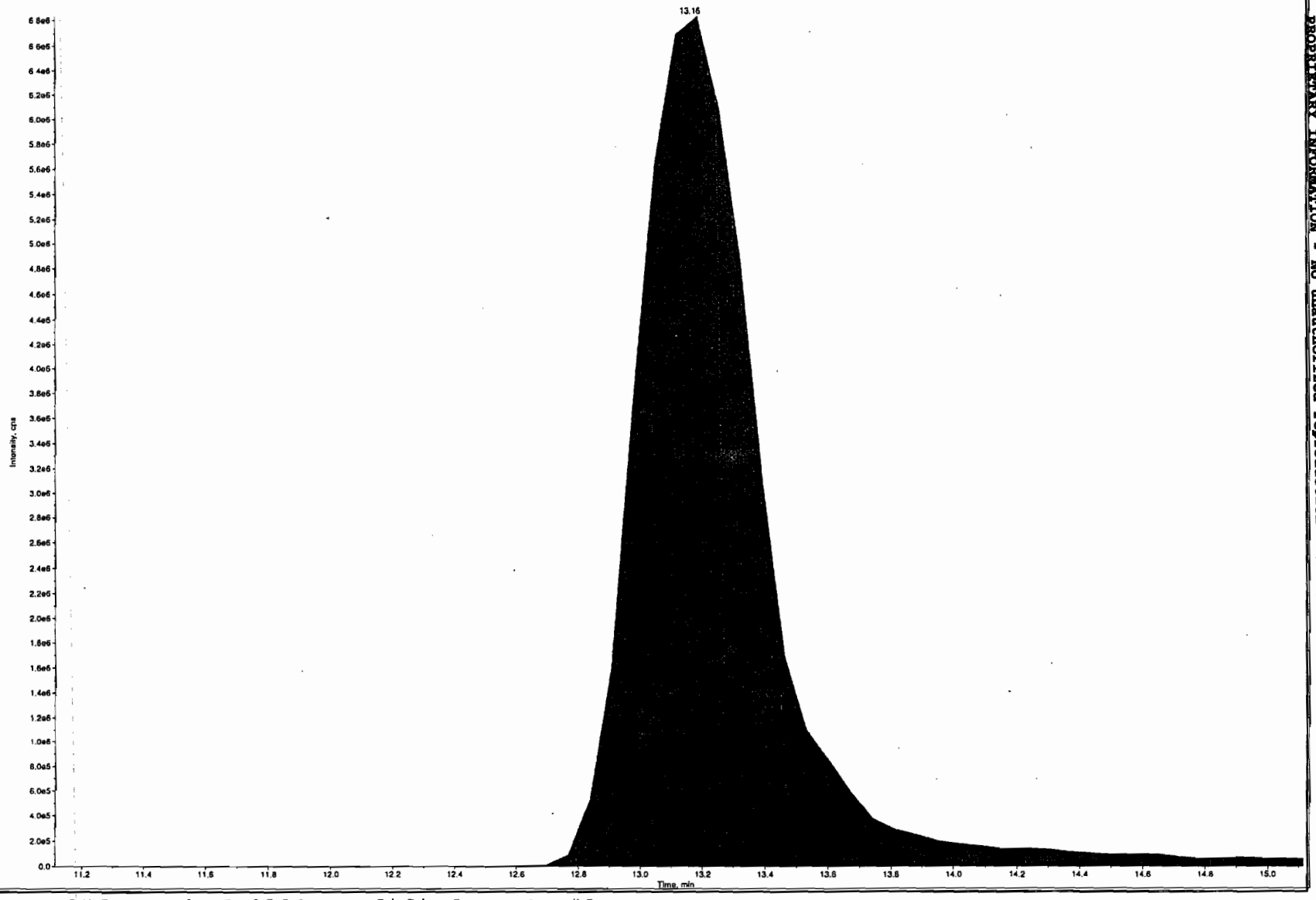
Before Ker 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415063.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227 1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 500. ng/mL
Calculated Conc: 718. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 12:57:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.2 min
Area: 1.96e+008 counts
Height: 6.83e+005 cps
Start Time: 12.5 min
End Time: 16.3 min



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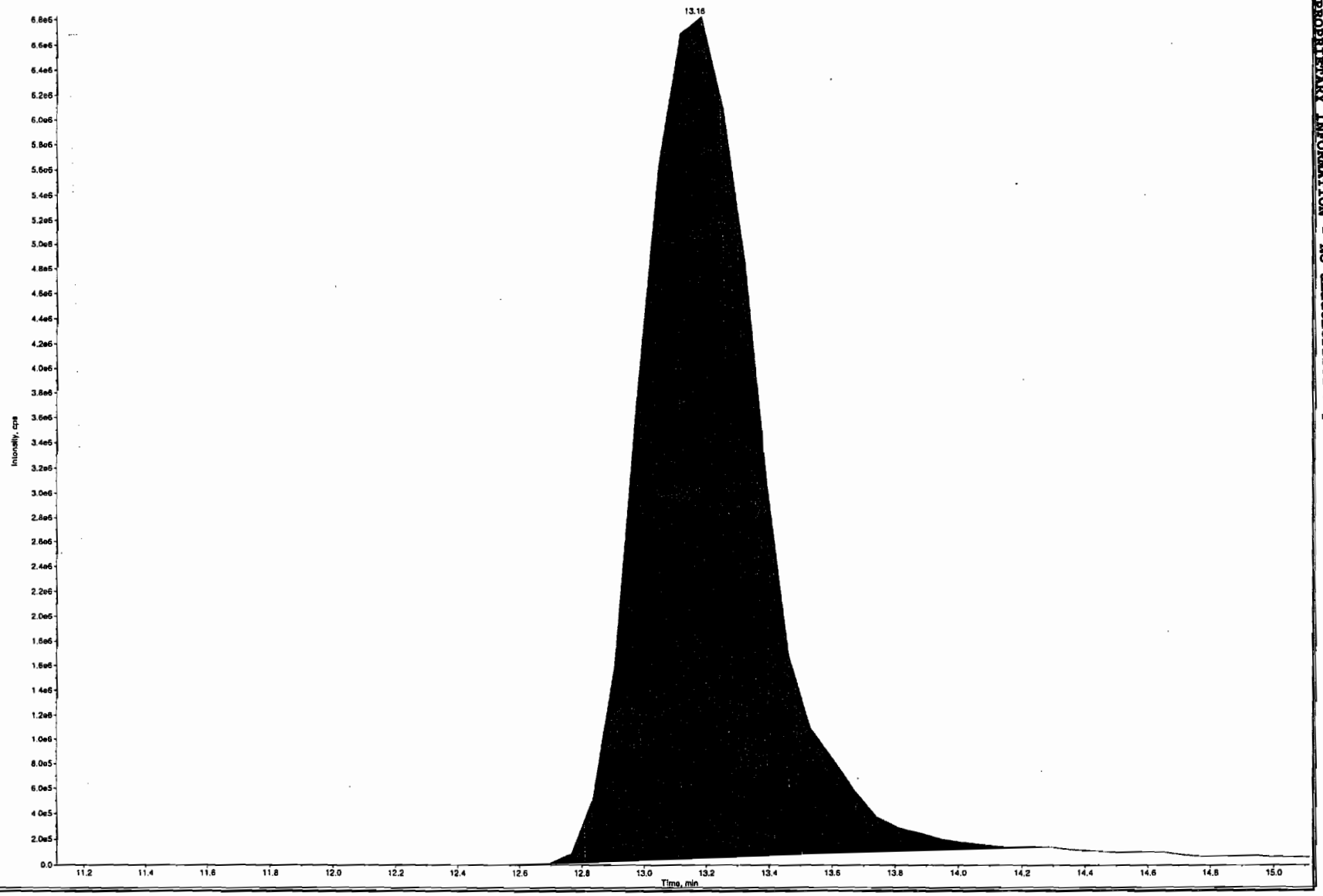
after Scan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1][LER" File: "EXP0415063.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 631. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 12:57:07 PM

Modified: Yes
RT Window: 10.0 sec
Expected RT: 11.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 13.2 min
Area: 1.81e-006 counts
Height: 6.83e-006 cps
Start Time: 12.6 min
End Time: 14.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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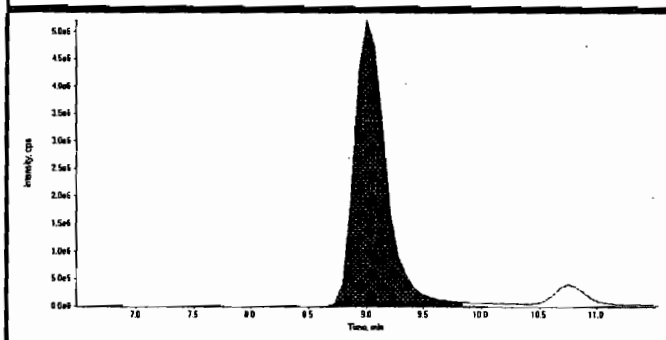
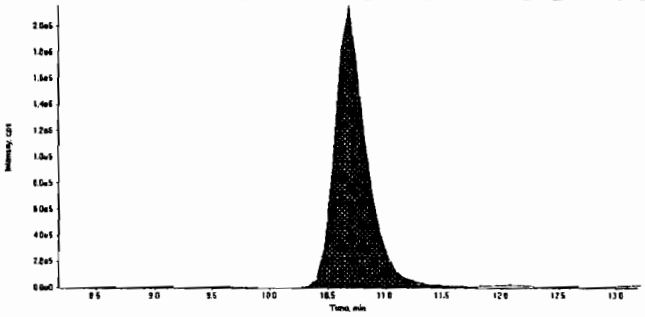
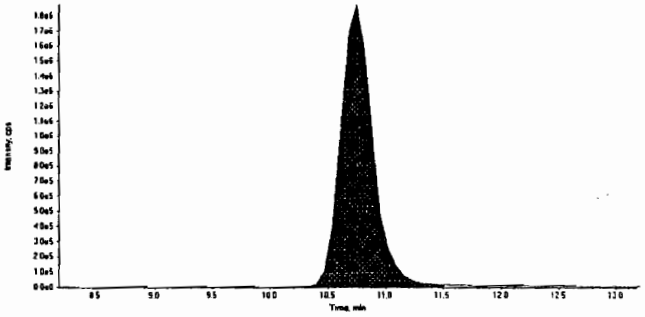
Data File	EXP0415063.wiff	**Acquisition Date**	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



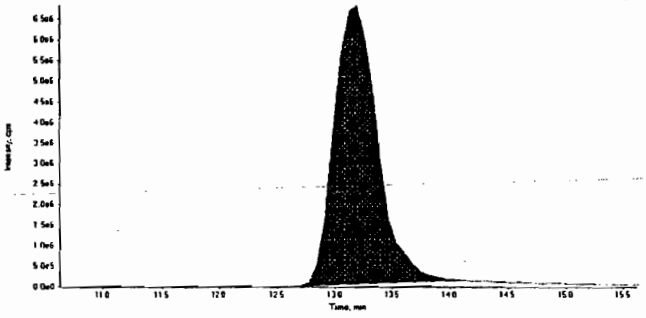
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	1.03e+008
Manual Modification	No
Amount:	644. (ng/mL)
% Accuracy:	107.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.18e+007
Manual Modification	No
Amount:	564. (ng/mL)
% Accuracy:	93.90



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.70e+007
Manual Modification	No
Amount:	587. (ng/mL)
% Accuracy:	97.90



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.81e+008
Manual Modification	Yes
Amount:	631. (ng/mL)
% Accuracy:	105.00

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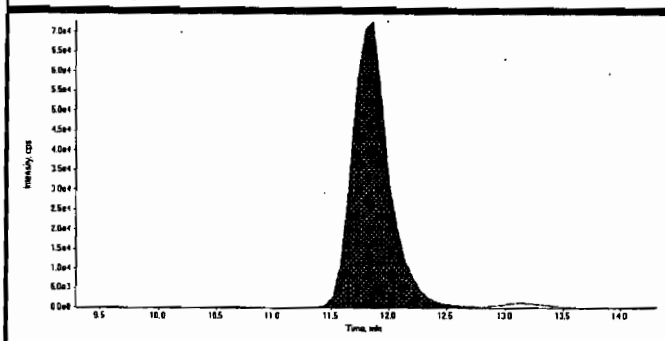
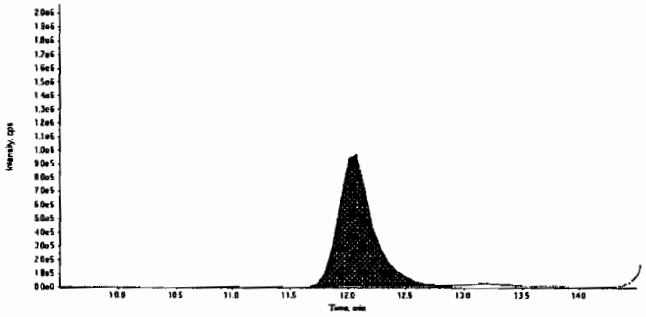
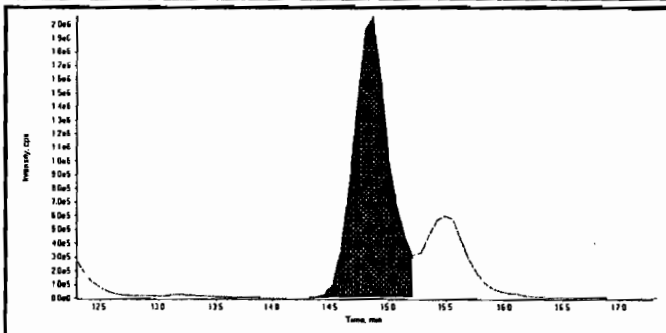
Data File	EXP0415063.wiff	**Acquisition Date**	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



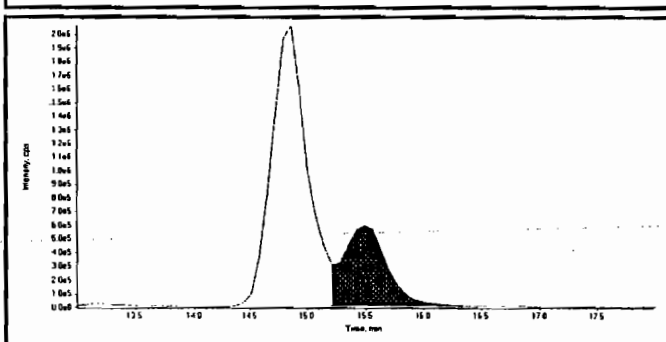
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.62e+006
Manual Modification	No
Amount:	579. (ng/mL)
% Accuracy:	96.50



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.08e+007
Manual Modification	No
Amount:	239. (ng/mL)
% Accuracy:	79.80



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	4.49e+007
Manual Modification	No
Amount:	642. (ng/mL)
% Accuracy:	107.00



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.65e+007
Manual Modification	No
Amount:	610. (ng/mL)
% Accuracy:	102.00

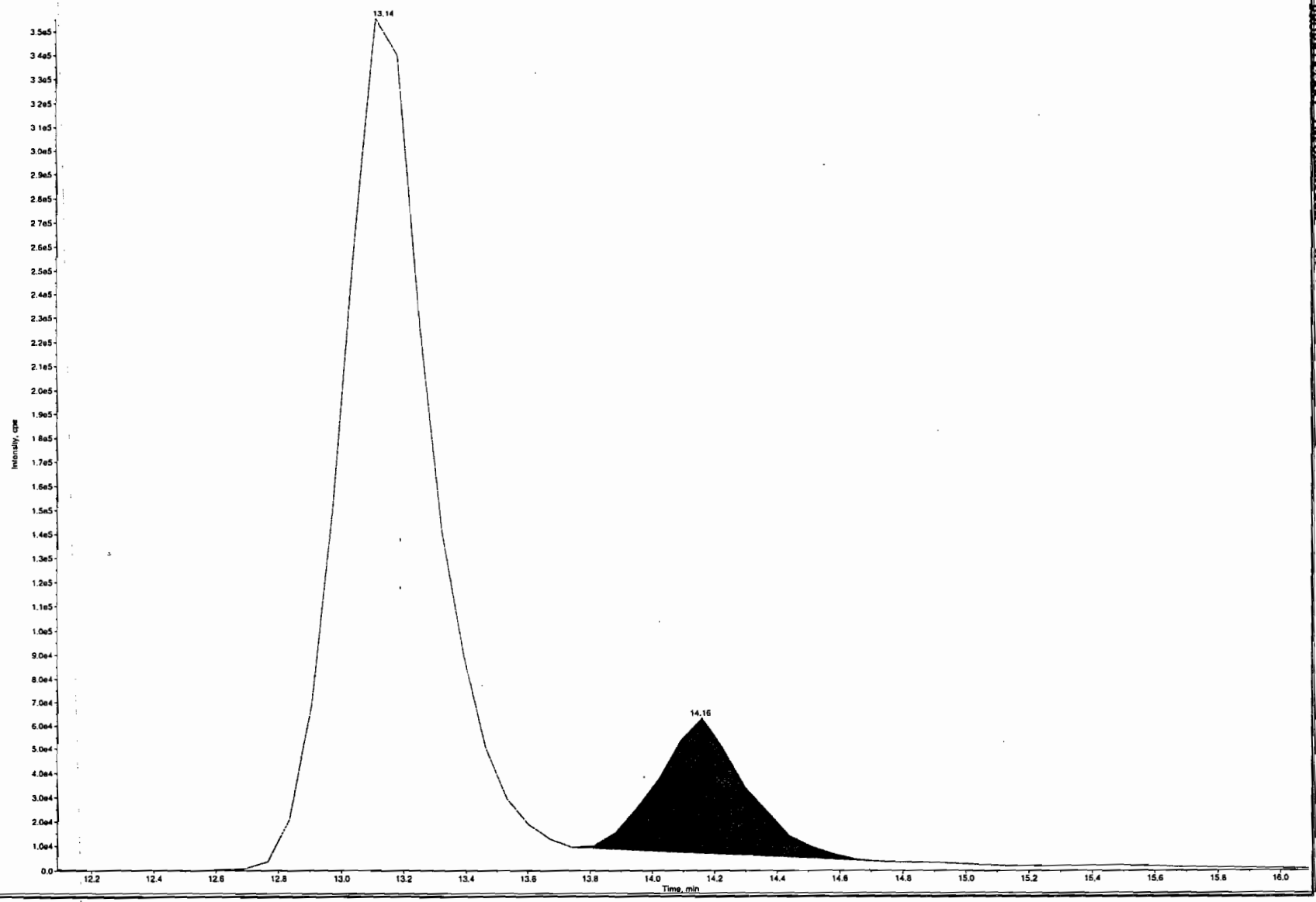
Before Dar 4/23/10

Sample Name "WXX100415-56CCV" Sample ID. "[1]LER" File: "EXP0415083.wiff"
Peak Name "2-Amino-46-dinitrotoluene" Mass(es) "197.0/180.0 amu"
Comment "LCMSEXP_C" Annotation ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 12:57:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 1.10e+006 counts
Height: 5.60e+004 cps
Start Time: 13.7 min
End Time: 14.7 min



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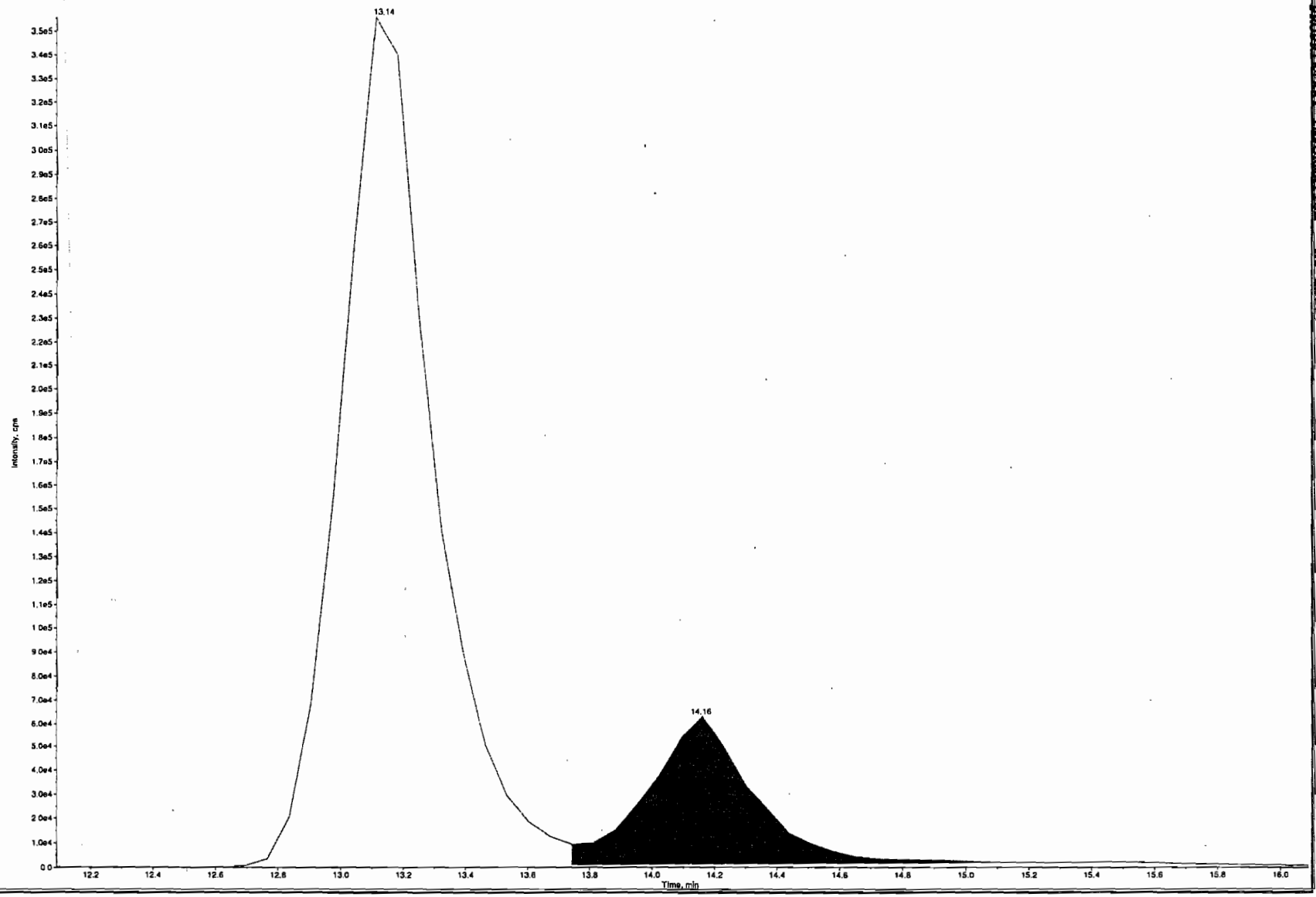
after dan 4/23/10

Sample Name: "WXX100415-56CCV" Sample ID: "[1]LER" File: "EXP0415063.wif"
Peak Name: "2-Amino-4-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	580.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	12:57:07 PM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	14.1	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	14.2	min
Area:	1.43e+006	counts
Height:	6.18e+004	cps
Start Time:	11.7	min
End Time:	15.1	min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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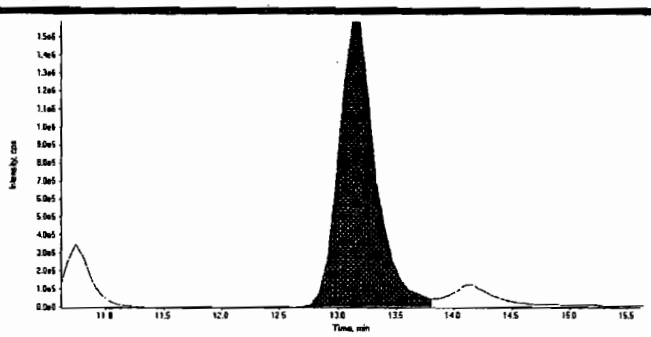
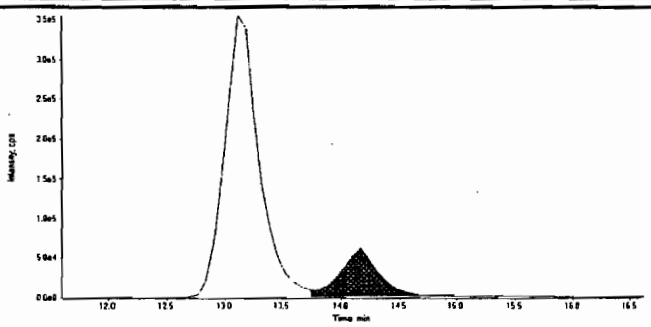
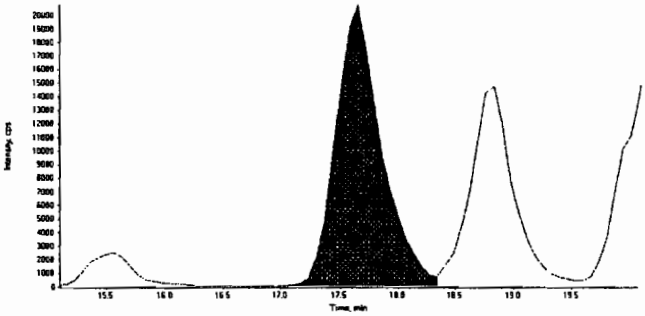
Data File	EXP0415063.wiff	**Acquisition Date**	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



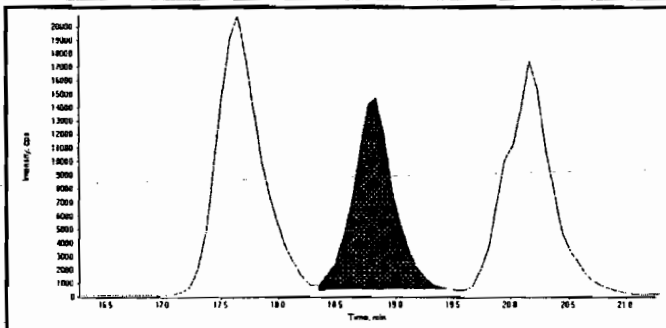
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	3.56e+007
Manual Modification	No
Amount:	605. (ng/mL)
% Accuracy:	101.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.43e+006
Manual Modification	Yes
Amount:	580. (ng/mL)
% Accuracy:	96.60



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	5.63e+005
Manual Modification	No
Amount:	538. (ng/mL)
% Accuracy:	89.60



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	3.43e+005
Manual Modification	No
Amount:	610. (ng/mL)
% Accuracy:	102.00

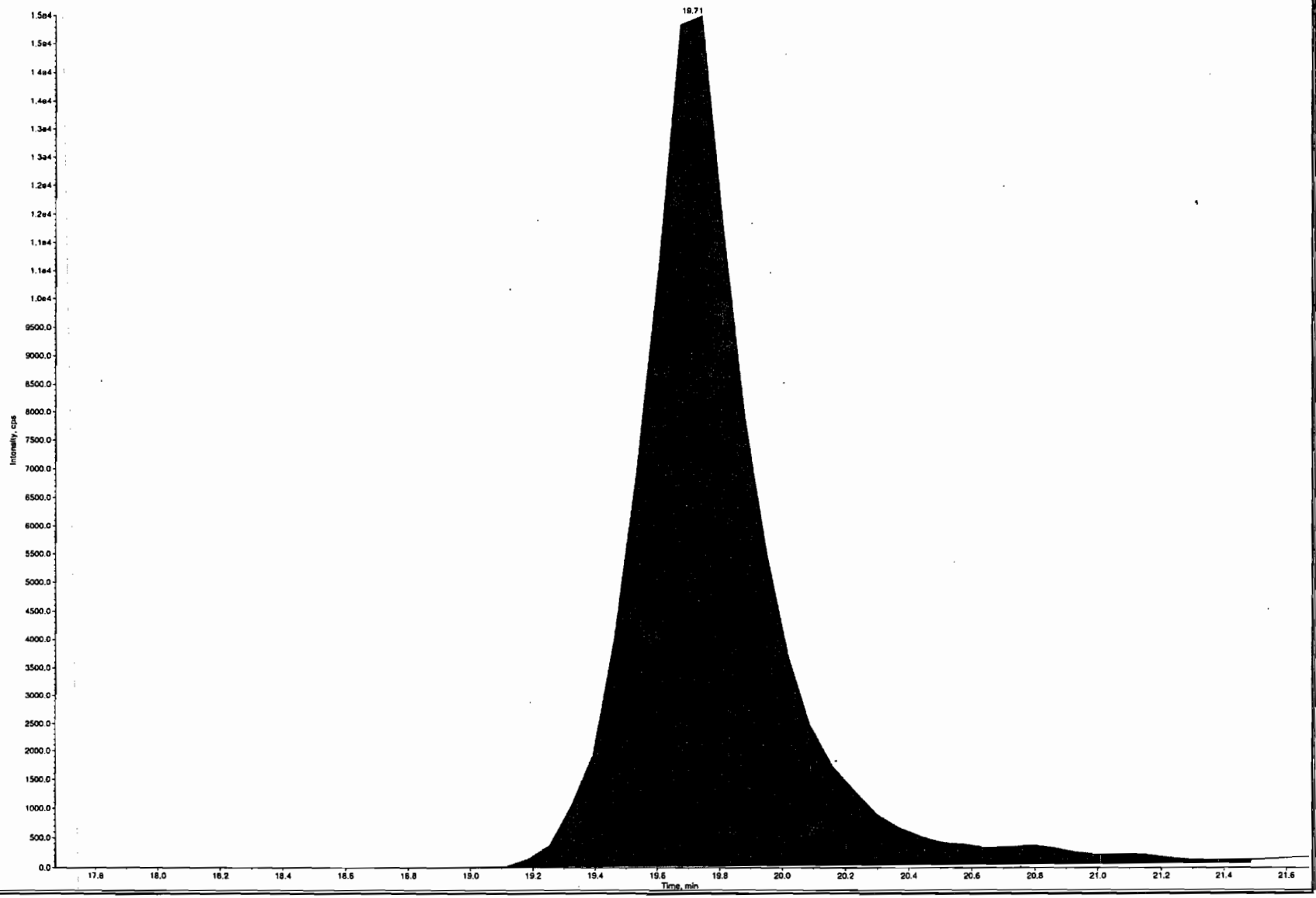
Before Dan 4/23/10

Sample Name "WXX100415-56CCV" Sample ID "[1]LER" File: "EXP0415063 wiff"
Peak Name: "PETN" Mass(as) "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 757. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 12:57:07 PM

Modified: No
Proc. Algorithm: Intell!Quan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.7 min
Area: 3.91e+005 counts
Height: 1.50e+004 cps
Start Time: 19.0 min
End Time: 21.5 min



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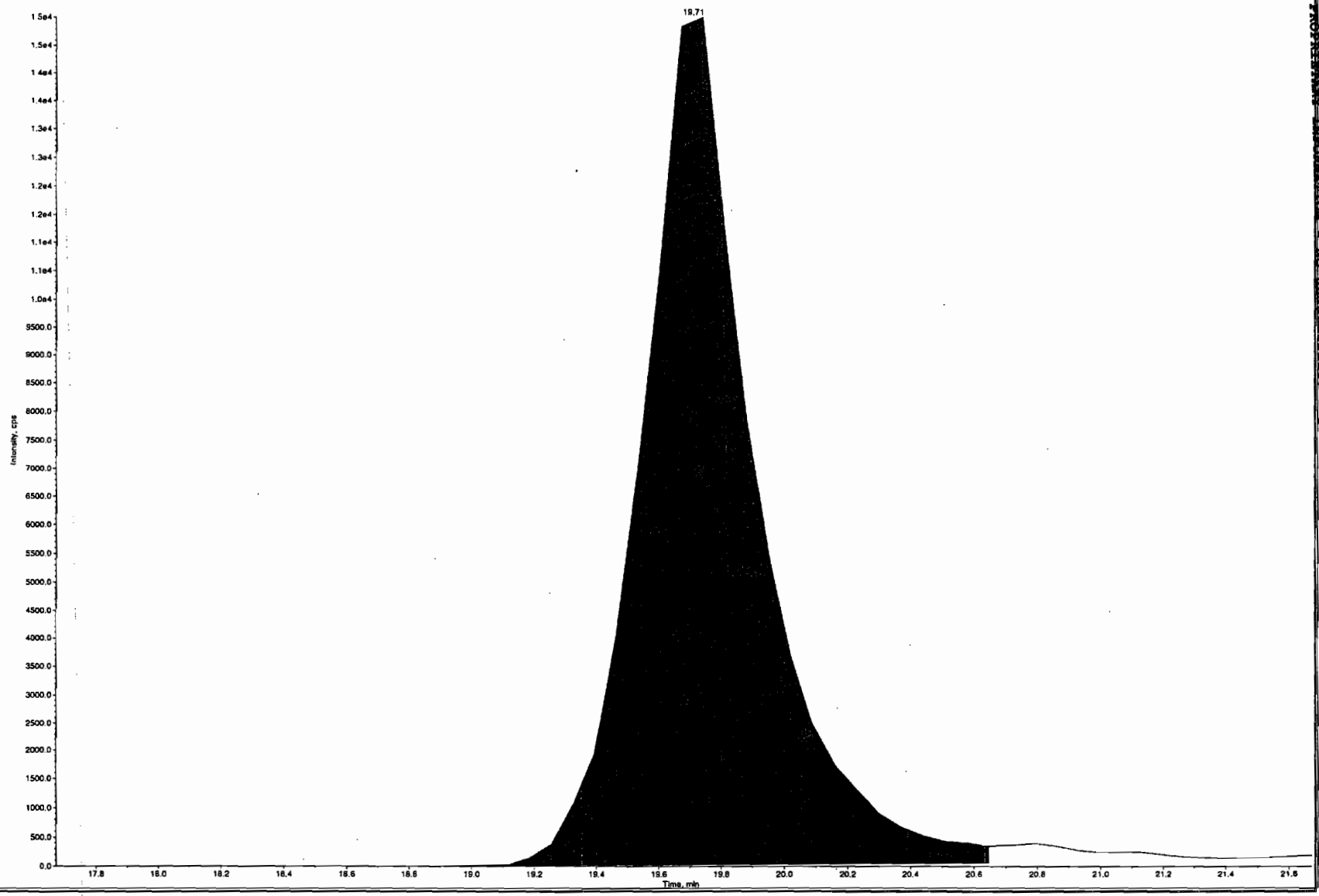
after Dan 4/23/10

Sample Name "WXX100415-56CCV" Sample ID: "[1]LER". File: "EXP0415063.wiff"
Peak Name "PETN" Mass(as): "381.1/62.0 amu"
Comment "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 710. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 12:57:07 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 19.7 min
Area: 3.82e+005 counts
Height: 1.54e+004 cps
Start Time: 19.0 min
End Time: 20.6 min



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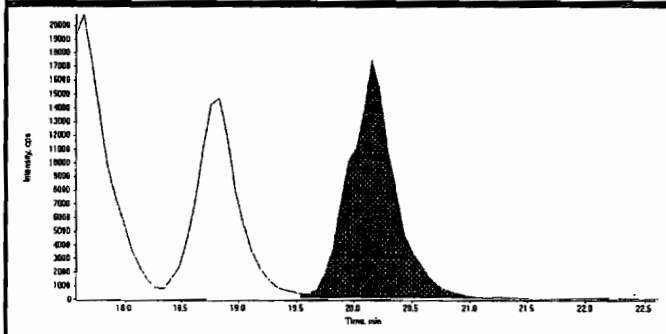
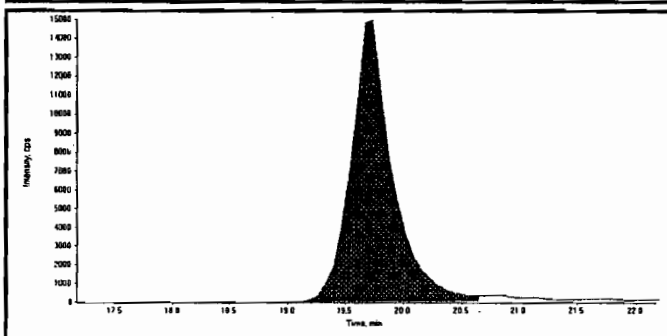
Data File	EXP0415063.wiff	**Acquisition Date**	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	4.76e+005
Manual Modification	No
Amount:	606. (ng/mL)
% Accuracy:	101.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	3.82e+005
Manual Modification	Yes
Amount:	710. (ng/mL)
% Accuracy:	118.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 1257
Standard Number WXX100415-56CCV
Data File EXP0415063a

HMX	108.0
RDX	125.0
135-Trinitrobenzene	107.0
13-Dinitrobenzene	93.9
Tetryl	97.9
246-Trinitrotoluene	105.0
Nitrobenzene	96.5
34-dinitrotoluene	79.8
26-dinitrotoluene	107.0
24-dinitrotoluene	102.0
4-Amino-26-dinitrotoluene	101.0
2-Amino-46-dinitrotoluene	96.6
2-Nitrotoluene	89.6
4-Nitrotoluene	102.0
3-Nitrotoluene	101.0
PETN	118.0
TOTAL	1630.3
AVERAGE	101.9

thm 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Jan 4/20/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415065.wiff

Analysis Date: 16-APR-10 13:49

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	32.3	81	
2,4,6-Trinitrotoluene	40	30.6	77	
2,4-Dinitrotoluene	40	28.5	71	
2,6-Dinitrotoluene	40	35.4	89	
2-Amino-4,6-dinitrotoluene	40	36.8	92	
3,4-Dinitrotoluene	20	15.1	75	
4-Amino-2,6-dinitrotoluene	40	30.4	76	
HMX	40	45.5	114	
Nitrobenzene	40	37.4	93	
PETN	40	32.2	81	
RDX	40	38.2	96	
Tetryl	40	34.3	86	
m-Dinitrobenzene	40	38.8	97	
m-Nitrotoluene	40	38.9	97	
o-Nitrotoluene	40	36.2	91	
p-Nitrotoluene	40	46.3	116	

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

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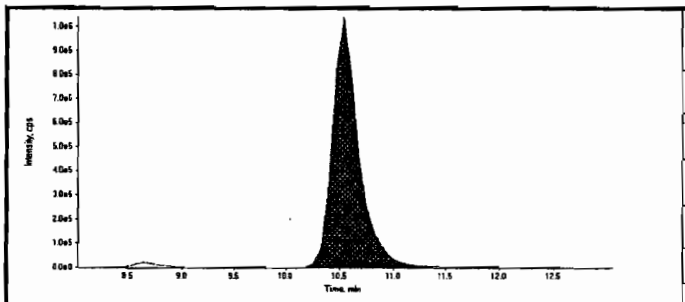
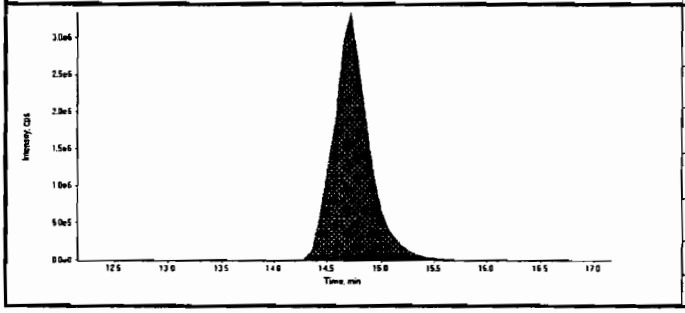
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

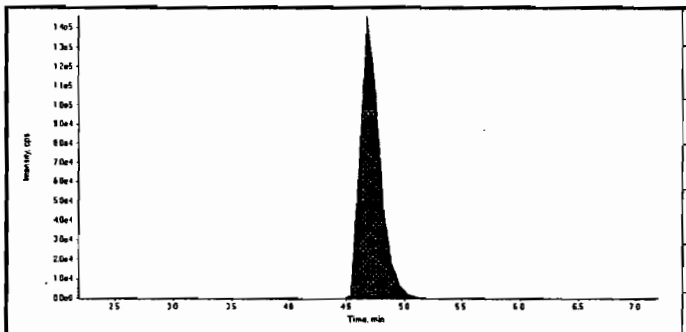
Data File	EXP0415065.wiff	**Acquisition Date**	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



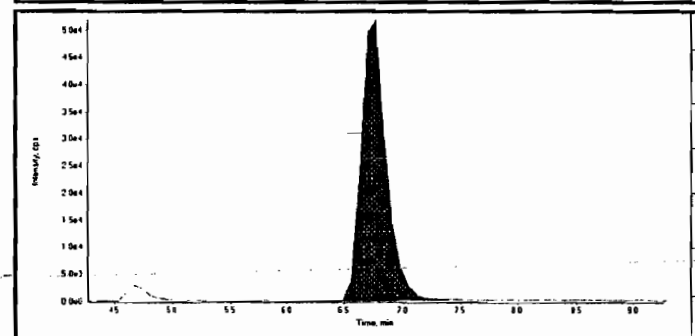
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	76300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.71e+006
Manual Modification	No
Amount:	45.5 (ng/mL)
% Accuracy:	114.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.84e+005
Manual Modification	No
Amount:	38.2 (ng/mL)
% Accuracy:	95.60

Hnm 04/23/10

Oflen 4/23/10

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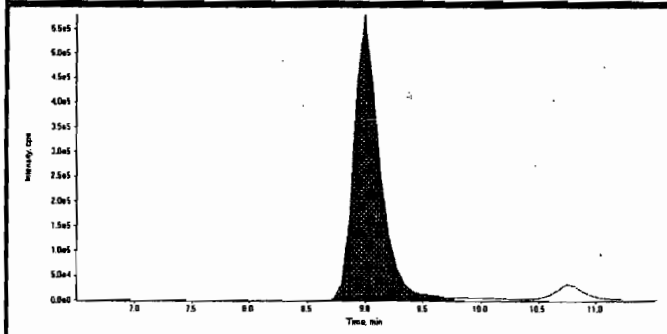
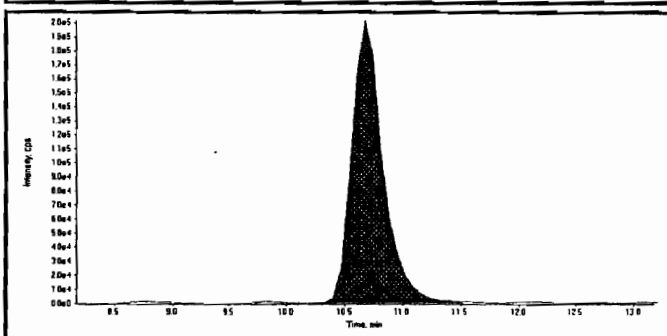
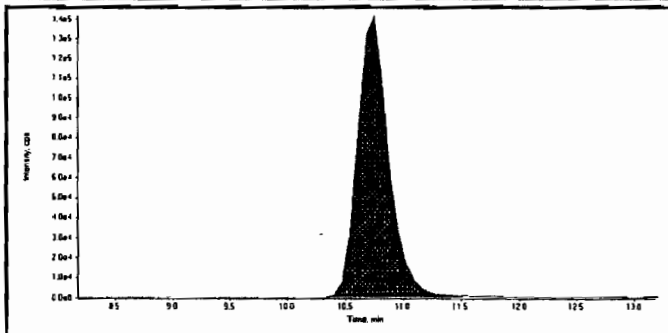
Data File	EXP0415065.wiff	**Acquisition Date**	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



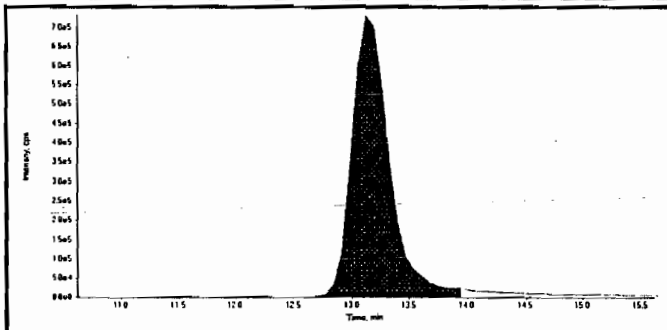
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	9.33e+006
Manual Modification	No
Amount:	32.3 (ng/mL)
% Accuracy:	80.80



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.90e+006
Manual Modification	No
Amount:	38.8 (ng/mL)
% Accuracy:	96.90



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	2.72e+006
Manual Modification	No
Amount:	34.3 (ng/mL)
% Accuracy:	85.70

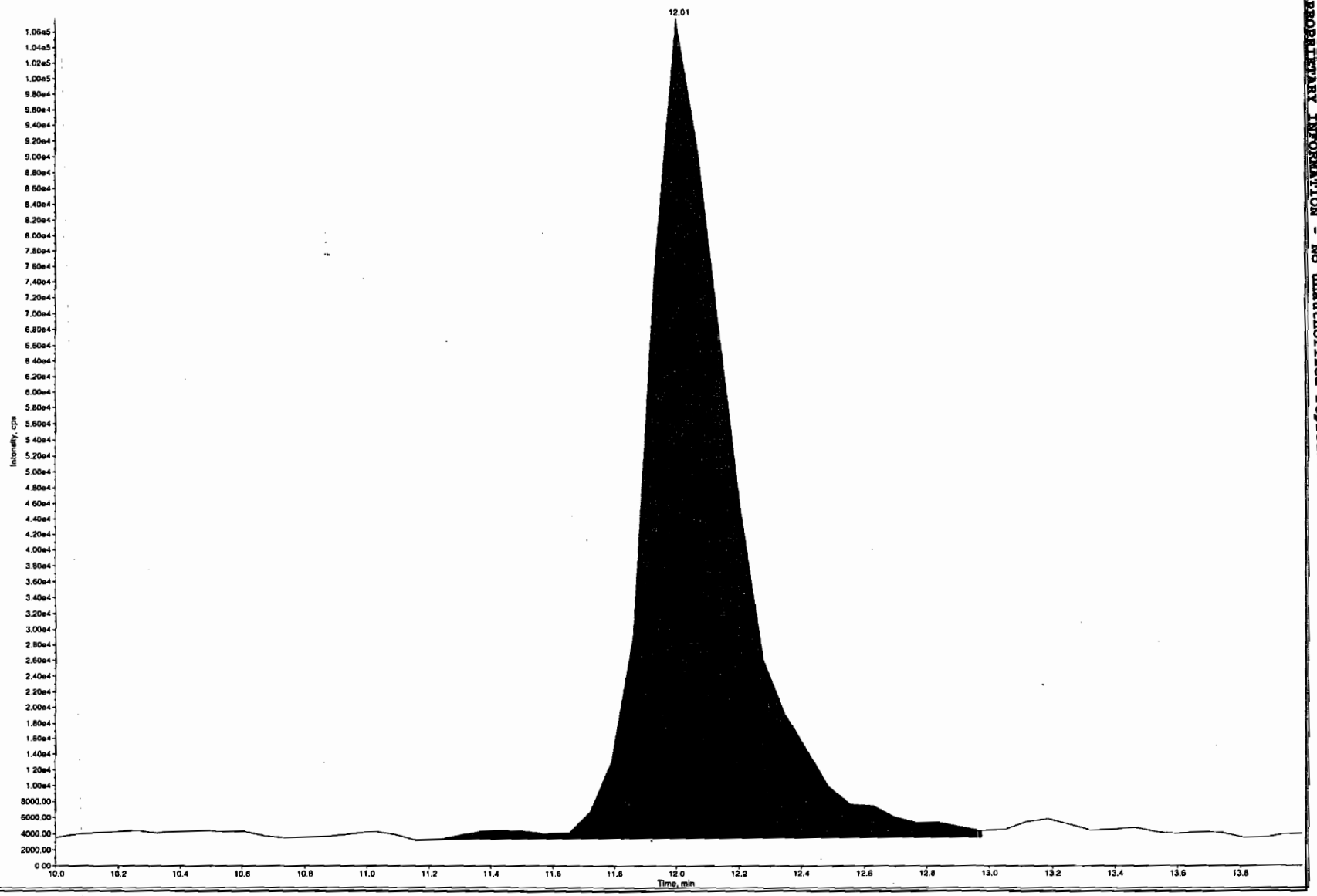


Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	1.67e+007
Manual Modification	No
Amount:	30.6 (ng/mL)
% Accuracy:	76.50

Before Clean 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415065.wiff"
Peak Name: "34-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	20.0	ng/mL
Calculated Conc:	15.8	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	1:49:00 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IOA	
Min. Peak Height:	1000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	60.0	sec
Expected RT:	12.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	12.0	min
Area:	2.03e+006	counts
Height:	1.04e+005	cps
Start Time:	11.2	min
End Time:	13.0	min



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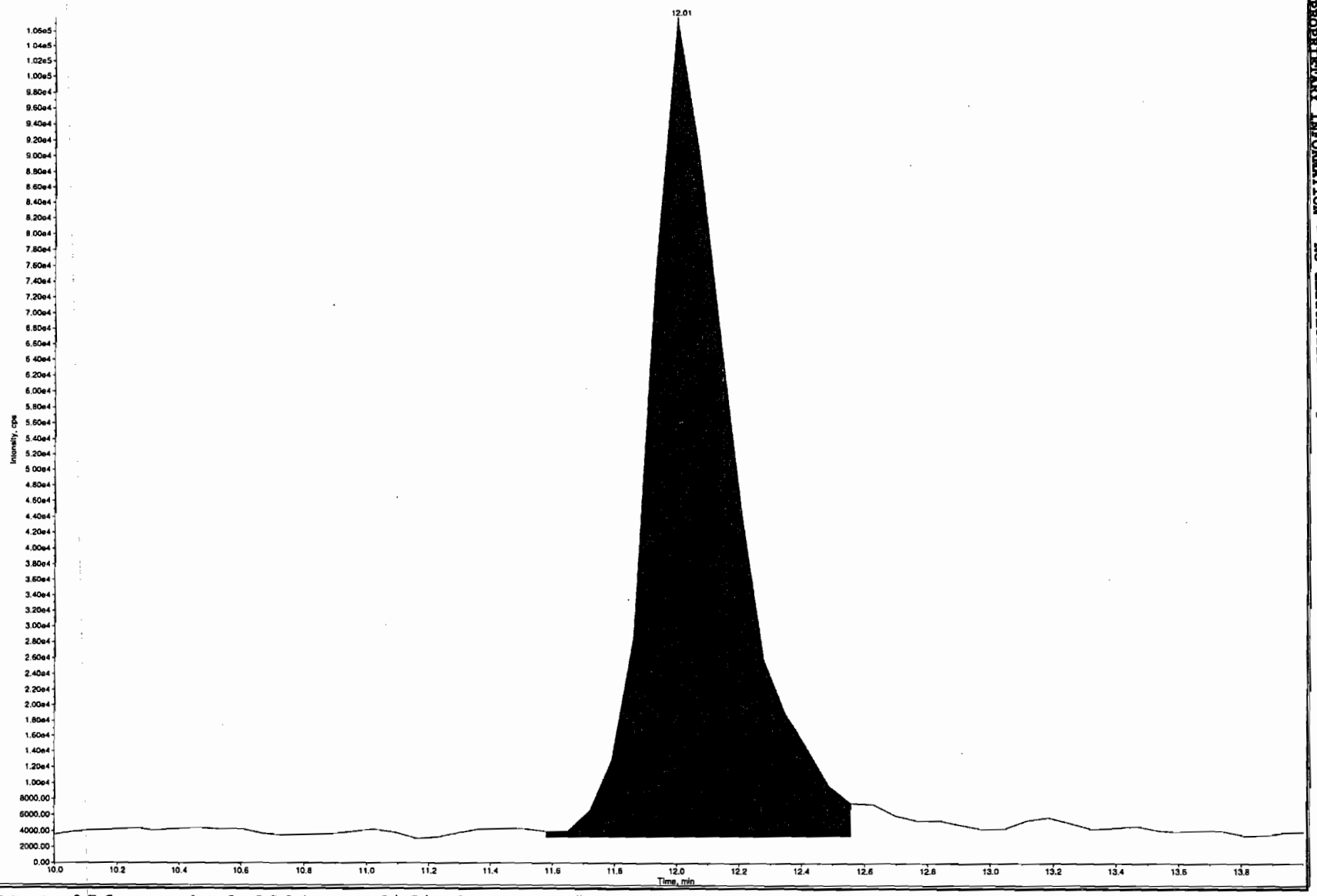
after Ker 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415065.wiff"
Peak Name: "34-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	20.0	ng/mL
Calculated Conc:	15.1	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	1:49:00 PM	
Modified:	Yes	
RT Window:	60.0	sec
Expected RT:	12.0	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	12.0	min
Area:	1.95e+006	counts
Height:	1.05e+005	cps
Start Time:	11.6	min
End Time:	12.6	min



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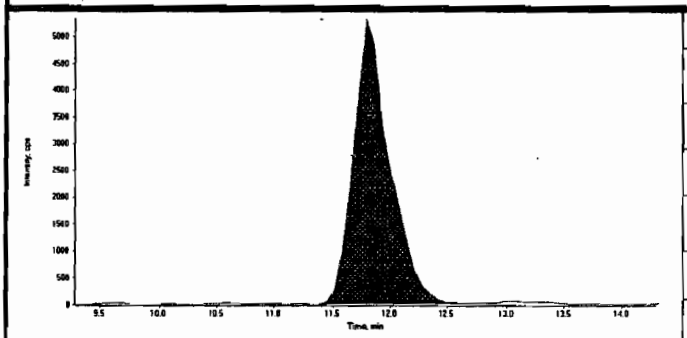
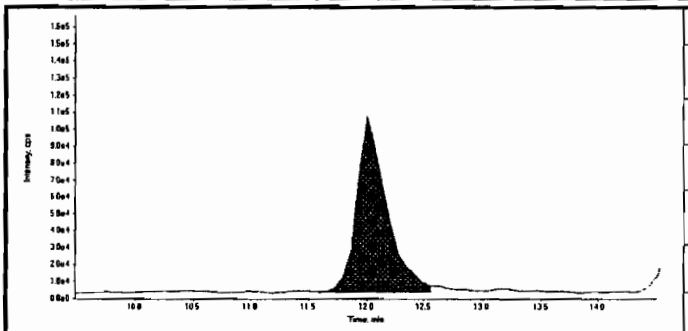
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

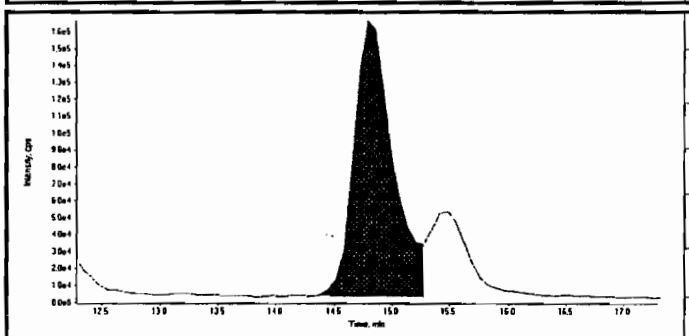
Data File	EXP0415065.wiff	**Acquisition Date**	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



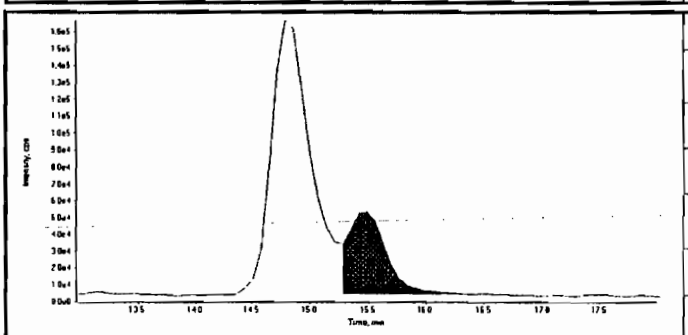
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	1.18e+005
Manual Modification	No
Amount:	37.4 (ng/mL)
% Accuracy:	93.40



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	1.95e+006
Manual Modification	Yes
Amount:	15.1 (ng/mL)
% Accuracy:	75.30



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	3.94e+006
Manual Modification	No
Amount:	35.4 (ng/mL)
% Accuracy:	88.60



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.22e+006
Manual Modification	No
Amount:	28.5 (ng/mL)
% Accuracy:	71.40

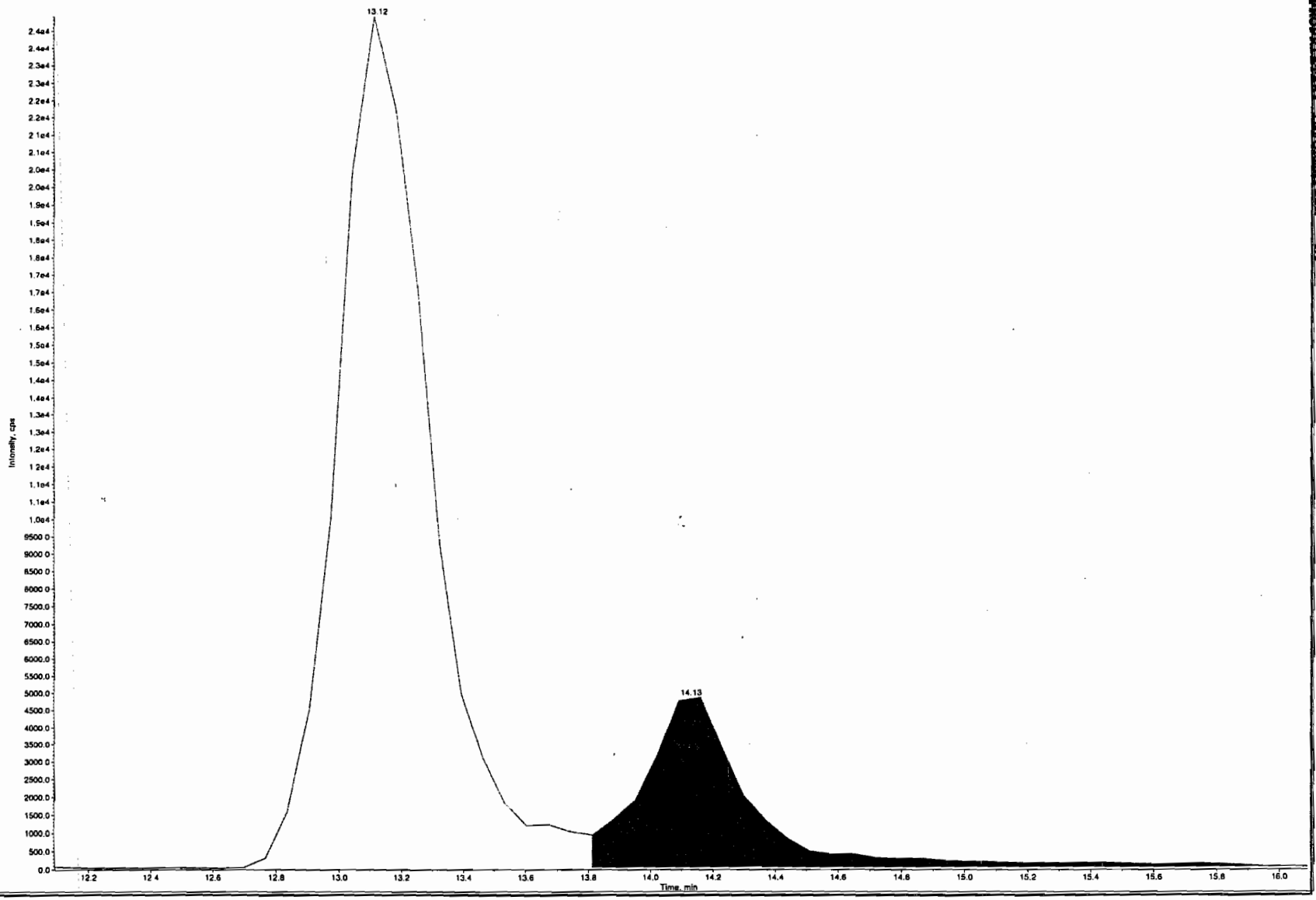
Before LCer 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "||LER" File: "EXP0415065.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/160.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: CC
Concentration: 40.0 ng/mL
Calculated Conc: 40.8 ng/mL
Acq. Date: 4/14/2010
Acq. Time: 1:49:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 1.17e-005 counts
Height: 4.79e+003 cps
Start Time: 13.8 min
End Time: 16.1 min



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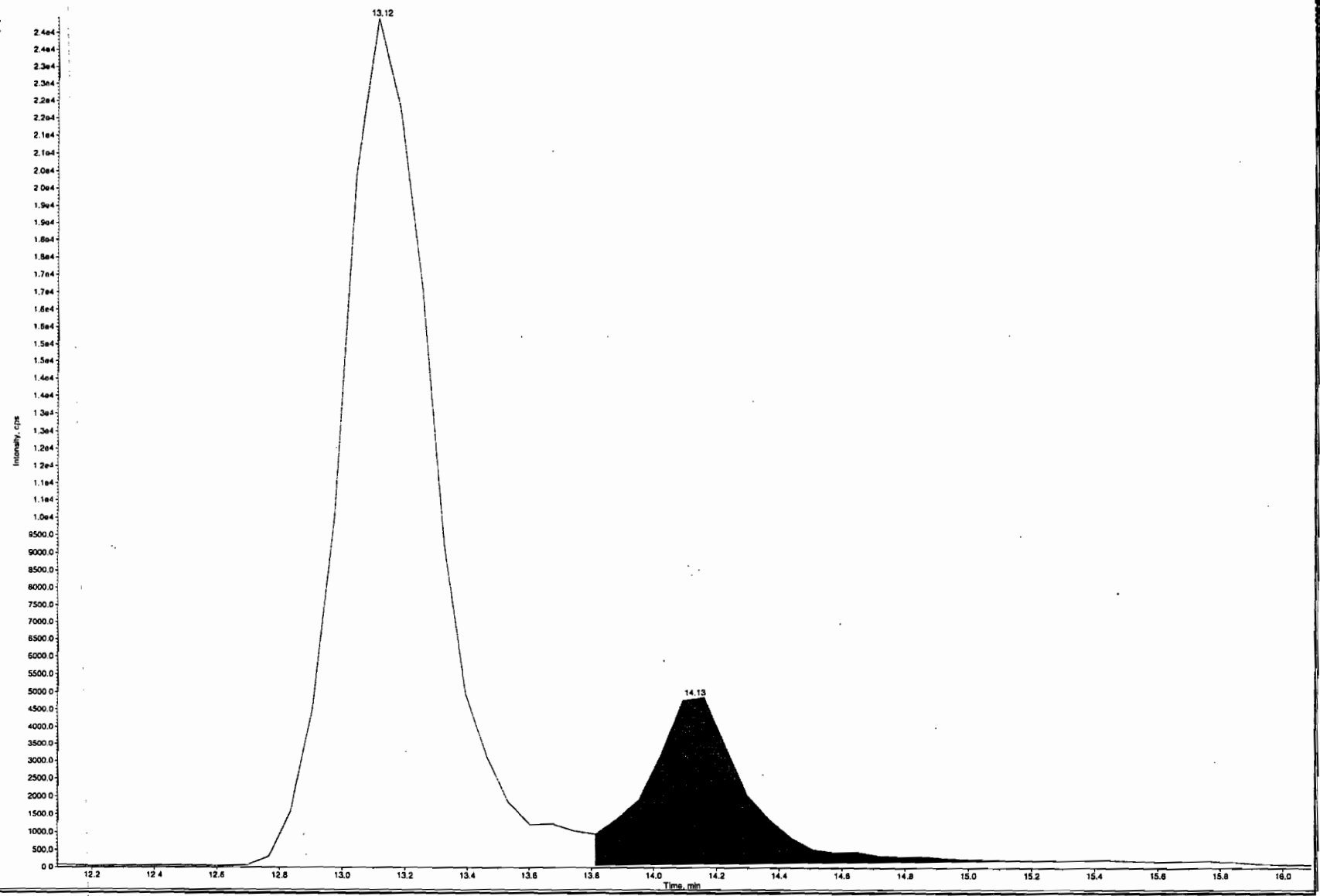
after dcr 4/23/10

Sample Name "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415065.wiff"
Peak Name: "2-Amino-4-6-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.0	ng/mL
Calculated Conc:	36.8	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	1:49:00 PM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	14.1	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	14.1	min
Area:	1.05e+005	counts
Height:	4.92e+003	cps
Start Time:	13.8	min
End Time:	15.2	min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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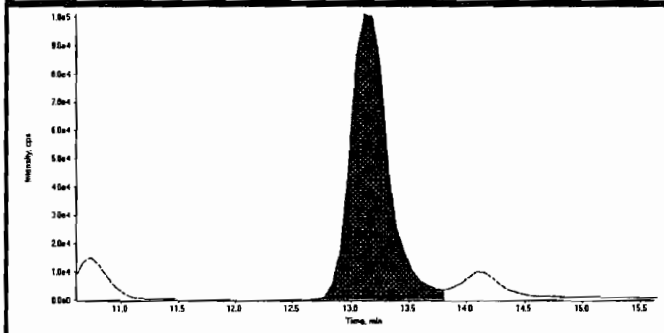
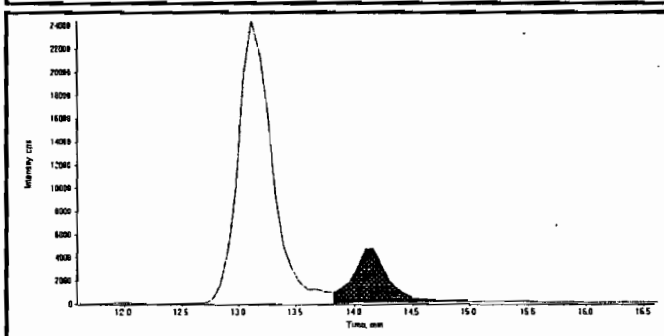
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

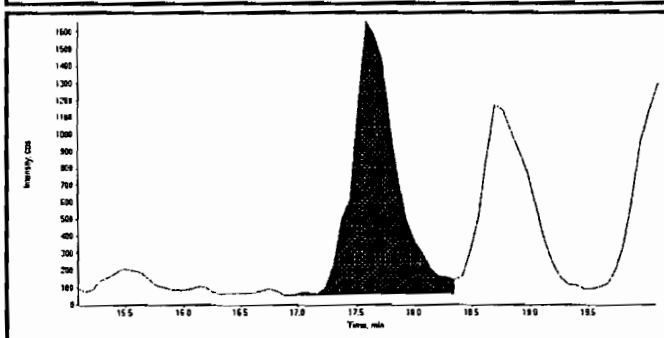
Data File	EXP0415065.wiff	**Acquisition Date**	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



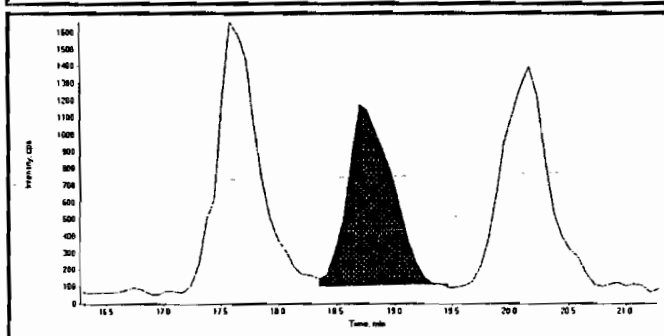
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	2.35e+006
Manual Modification	No
Amount:	30.4 (ng/mL)
% Accuracy:	75.90



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.1
Area Counts:	1.05e+005
Manual Modification	Yes
Amount:	36.8 (ng/mL)
% Accuracy:	92.10



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	4.20e+004
Manual Modification	No
Amount:	36.2 (ng/mL)
% Accuracy:	90.50



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.7
Area Counts:	2.89e+004
Manual Modification	No
Amount:	46.3 (ng/mL)
% Accuracy:	116.00

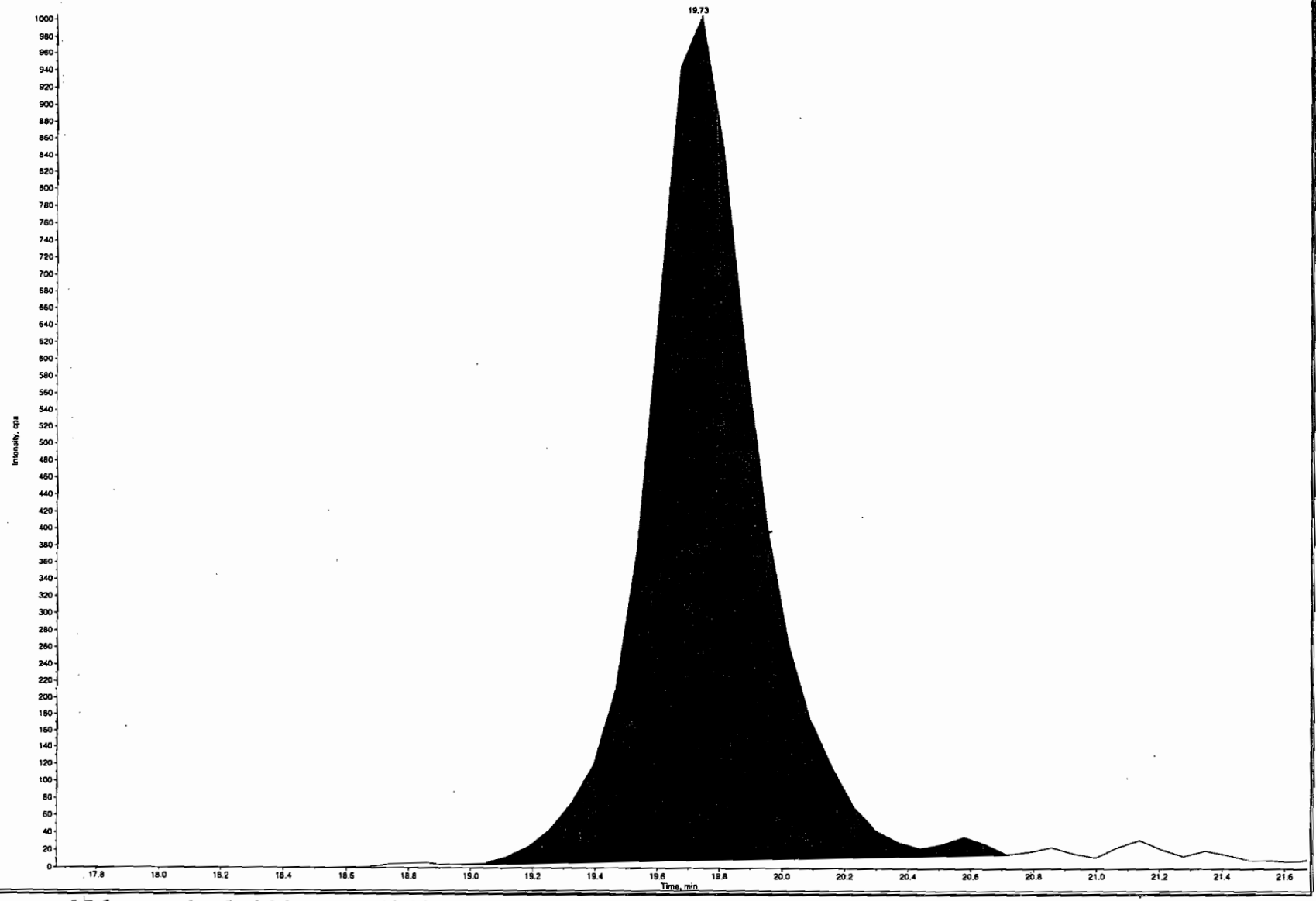
Before Clar 4/23/10

Sample Name: "WXX100415-S7CRI" Sample ID: "[1]LER" File: "EXP0415065.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: CC
Concentration: 40.0 ng/mL
Calculated Conc: 32.5 ng/mL
Acq. Date: 4/16/2010
Acq. Time: 1:49:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.7 min
Area: 2.47e+004 counts
Height: 9.97e+002 cps
Start Time: 19.0 min
End Time: 20.7 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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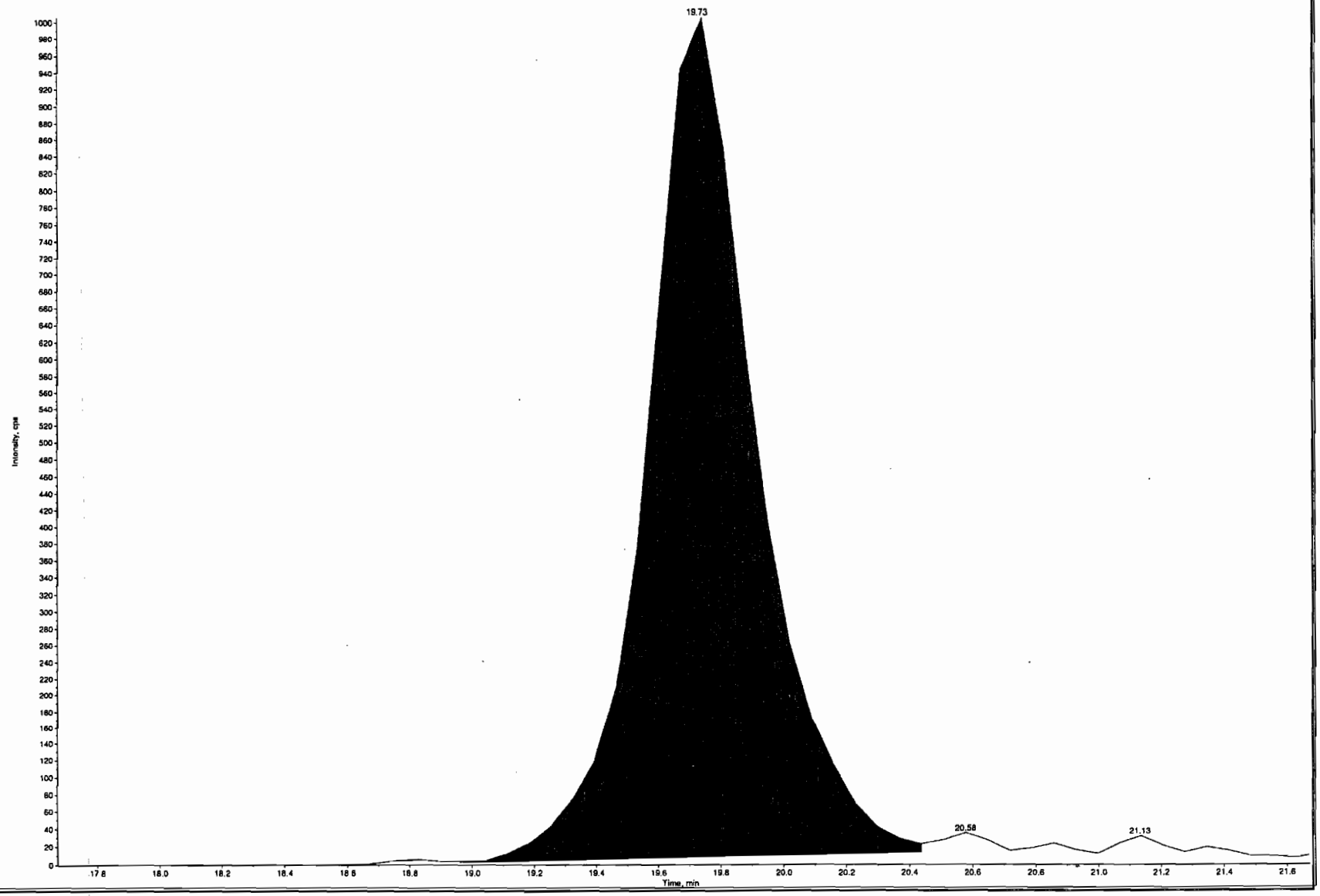
after Kar 4/23/10

Sample Name: "WXX100415-57CRI" Sample ID: "[1]LER" File: "EXP0415065.wif"
Peak Name: "PETN" Mass(es): "361.1/52.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	CC	
Concentration:	40.0	ng/mL
Calculated Conc:	32.2	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	1:49:00 PM	
Modified:	Yes	
RT Window:	60.0	sec
Expected RT:	19.7	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	19.7	min
Area:	2.45e+004	counts
Height:	1.00e+003	cps
Start Time:	19.0	min
End Time:	20.4	min



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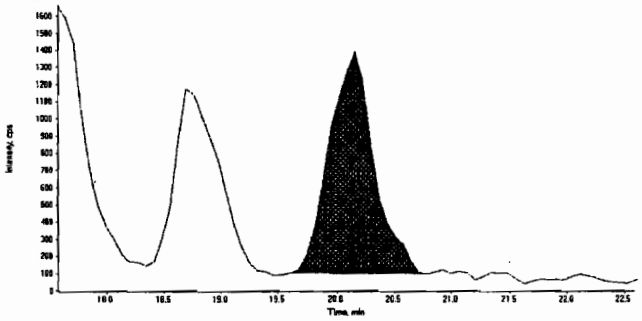
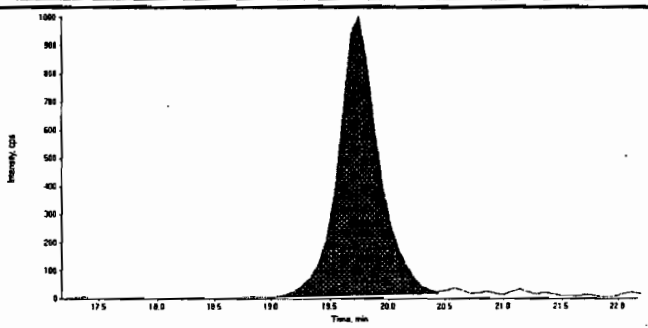
Data File	EXP0415065.wiff	**Acquisition Date**	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	3.51e+004
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.30



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	2.45e+004
Manual Modification	Yes
Amount:	32.2 (ng/mL)
% Accuracy:	80.60

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 1349
Standard Number WXX100415-57CRI
Data File EXP0415065a

HMX	114.0
RDX	95.6
135-Trinitrobenzene	80.8
13-Dinitrobenzene	96.9
Tetryl	85.7
246-Trinitrotoluene	76.5
Nitrobenzene	93.4
34-dinitrotoluene	75.3
26-dinitrotoluene	88.6
24-dinitrotoluene	71.4
4-Amino-26-dinitrotoluene	75.9
2-Amino-46-dinitrotoluene	92.1
2-Nitrotoluene	90.5
4-Nitrotoluene	116.0
3-Nitrotoluene	97.3
PETN	80.6
TOTAL	1430.6
AVERAGE	89.4

HMC 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/28/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415076.wiff

Analysis Date: 16-APR-10 18:34

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	522	87	
2,4,6-Trinitrotoluene	600	541	90	
2,4-Dinitrotoluene	600	623	104	
2,6-Dinitrotoluene	600	565	94	
2-Amino-4,6-dinitrotoluene	600	609	102	
3,4-Dinitrotoluene	300	258	86	
4-Amino-2,6-dinitrotoluene	600	554	92	
HMX	600	545	91	
Nitrobenzene	600	584	97	
PETN	600	631	105	
RDX	600	518	86	
Tetryl	600	518	86	
m-Dinitrobenzene	600	506	84	
m-Nitrotoluene	600	652	109	
o-Nitrotoluene	600	575	96	
p-Nitrotoluene	600	665	111	

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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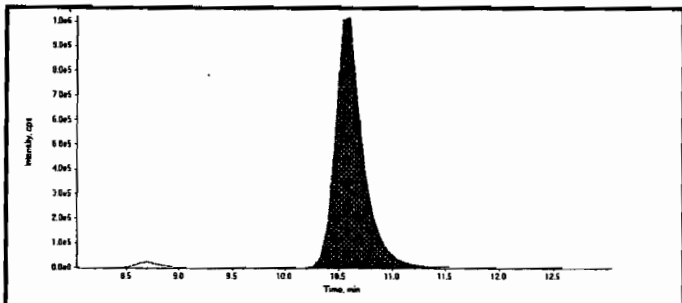
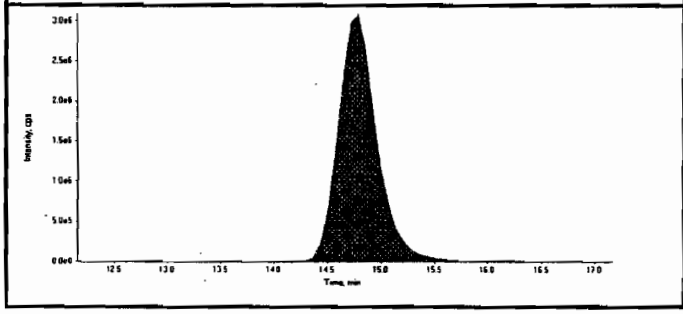
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

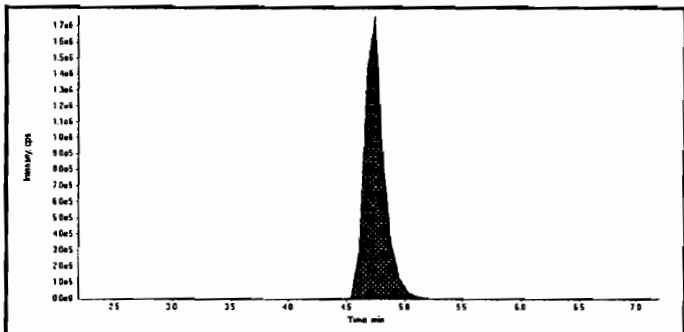
Data File	EXP0415076.wiff	**Acquisition Date**	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



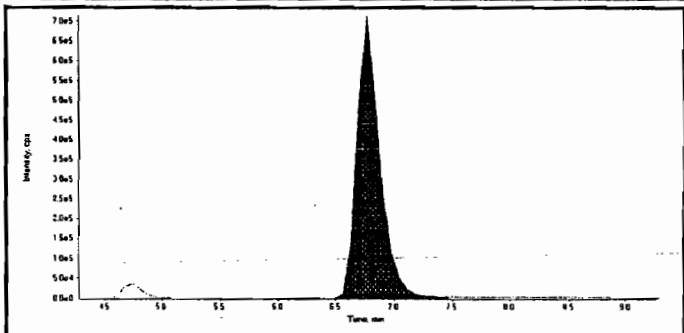
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	18600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	77800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.07e+007
Manual Modification	No
Amount:	545. (ng/mL)
% Accuracy:	90.80



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	9.96e+006
Manual Modification	No
Amount:	518. (ng/mL)
% Accuracy:	86.30

Hmm 04/23/10

Lcr 4/23/10

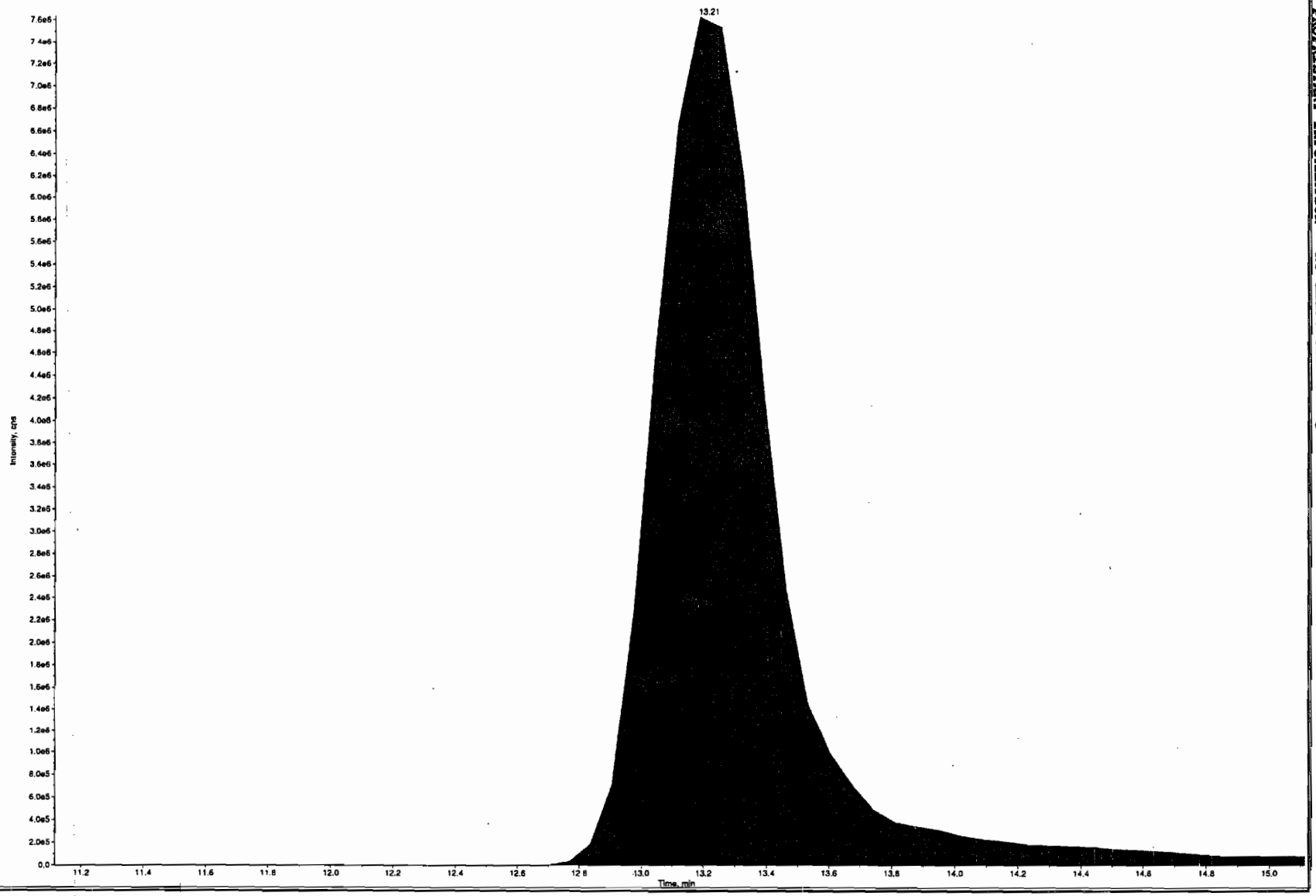
Before Ker 4/23/10

Sample Name "WXX100416-56CCV" Sample ID. "[1]LER" File: "EXP0415076.wiff"
Peak Name. "246-Trinitrotoluene" Mass(es). "227 1/209.8 amu"
Comment. "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 629. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 6:14:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 10.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.2 min
Area: 3.13e+008 counts
Height: 7.61e+006 cps
Start Time: 12.5 min
End Time: 17.5 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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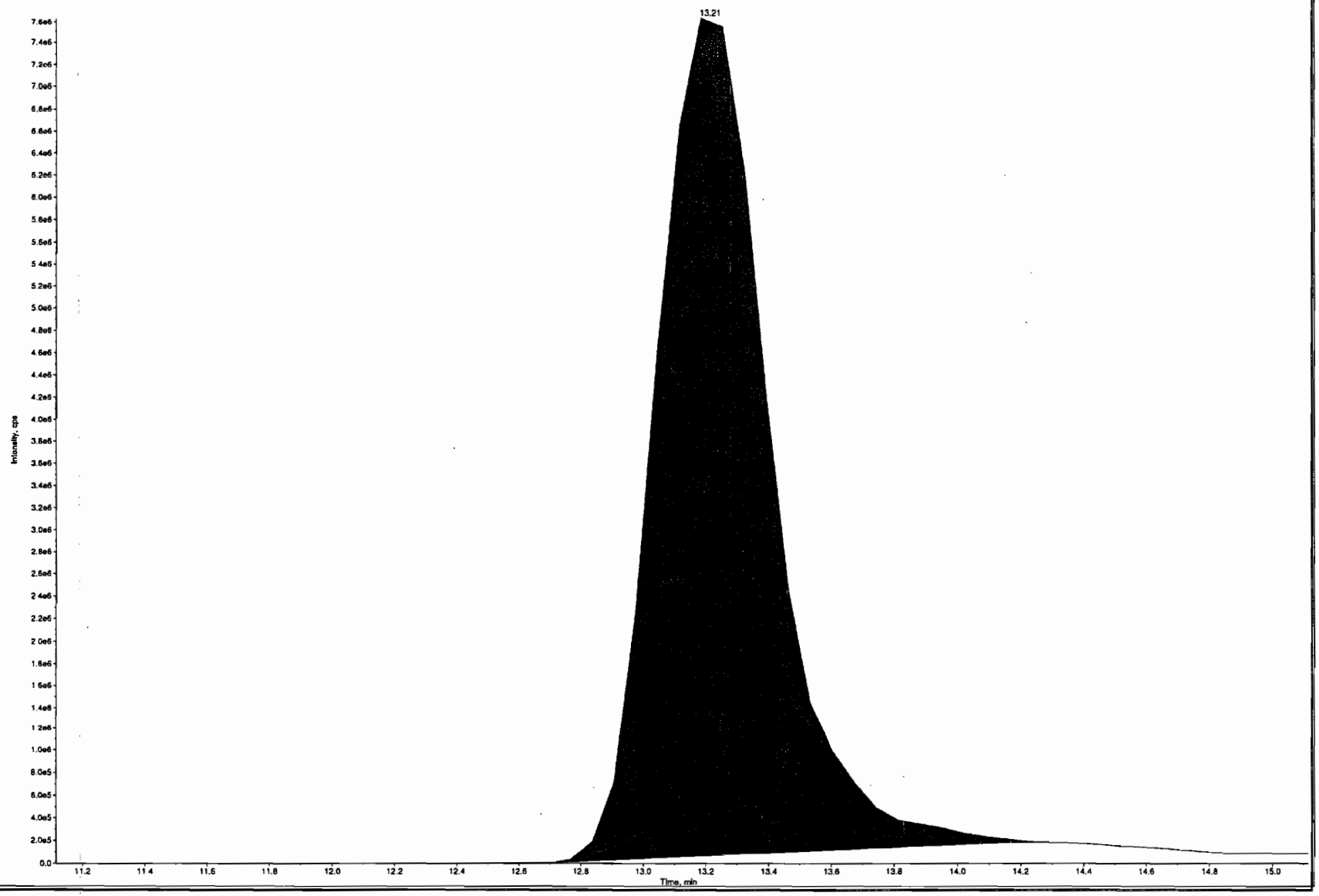
after Jan 4/23/10

Sample Name: "WXX100416-56CCV" Sample ID: "[1]LER" File: "EXP0415076.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	541.	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	6:34:58 PM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	13.1	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	13.2	min
Area:	1.92e+008	counts
Height:	7.66e+006	cps
Start Time:	12.7	min
End Time:	14.2	min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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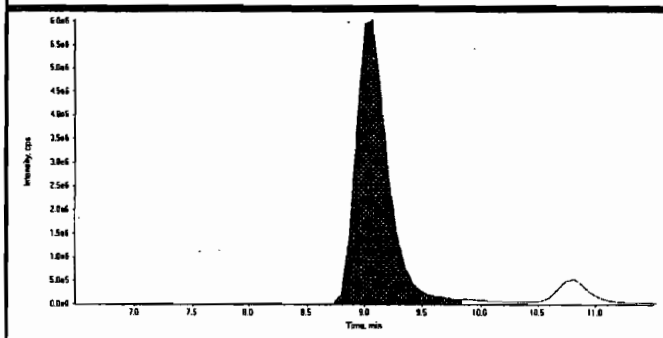
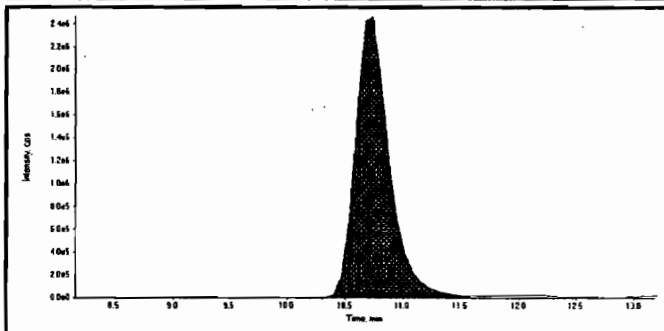
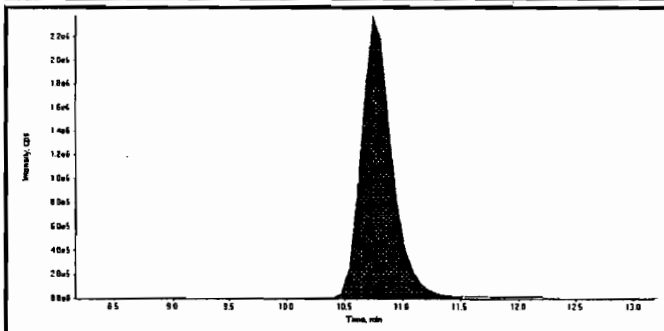
Data File	EXP0415076.wiff	**Acquisition Date**	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



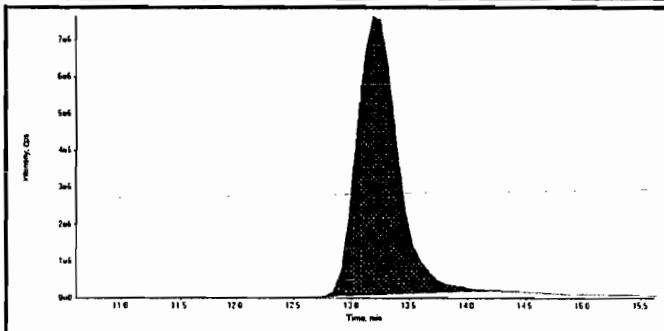
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.07
Area Counts:	1.20e+008
Manual Modification	No
Amount:	522. (ng/mL)
% Accuracy:	86.90



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	5.18e+007
Manual Modification	No
Amount:	506. (ng/mL)
% Accuracy:	84.40



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.48e+007
Manual Modification	No
Amount:	518. (ng/mL)
% Accuracy:	86.40



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.92e+008
Manual Modification	Yes
Amount:	541. (ng/mL)
% Accuracy:	90.20

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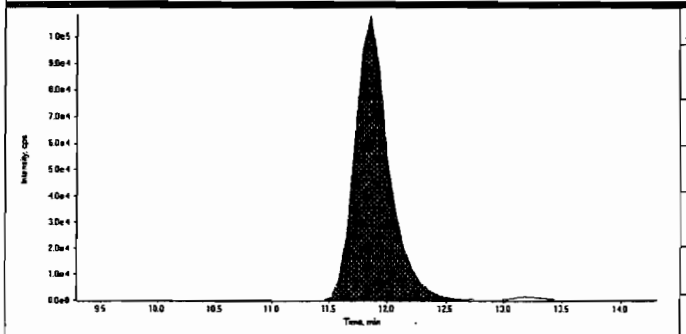
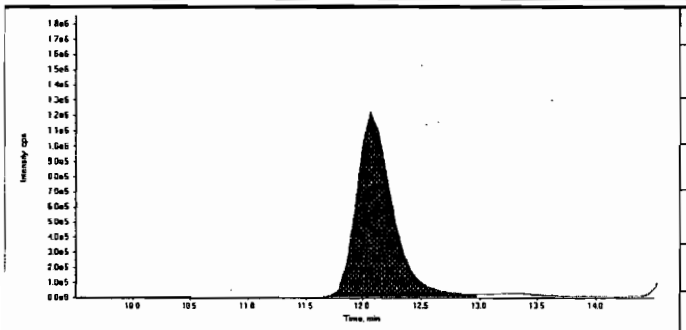
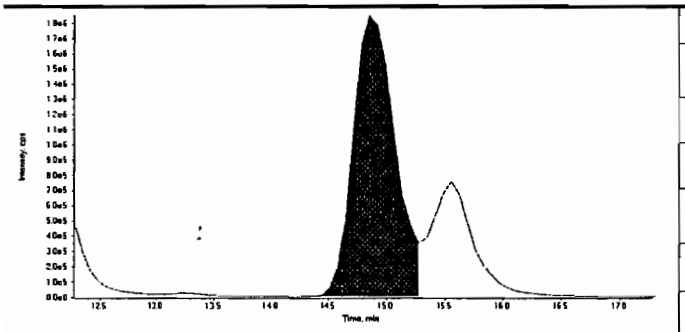
Data File	EXP0415076.wiff	**Acquisition Date**	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



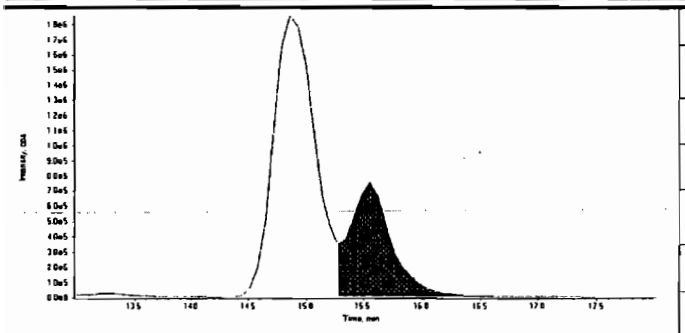
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.22e+006
Manual Modification	No
Amount:	584. (ng/mL)
% Accuracy:	97.40



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.63e+007
Manual Modification	No
Amount:	258. (ng/mL)
% Accuracy:	85.90



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	4.67e+007
Manual Modification	No
Amount:	565. (ng/mL)
% Accuracy:	94.10



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	1.98e+007
Manual Modification	No
Amount:	623. (ng/mL)
% Accuracy:	104.00

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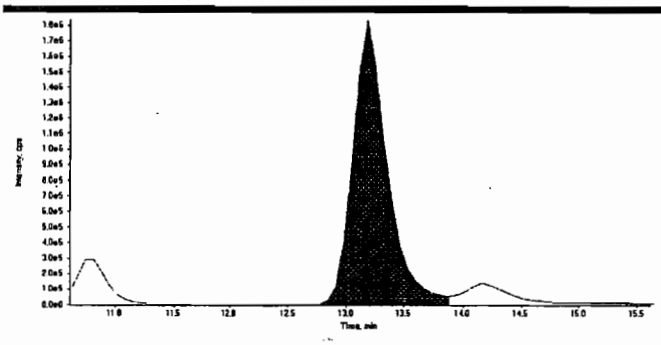
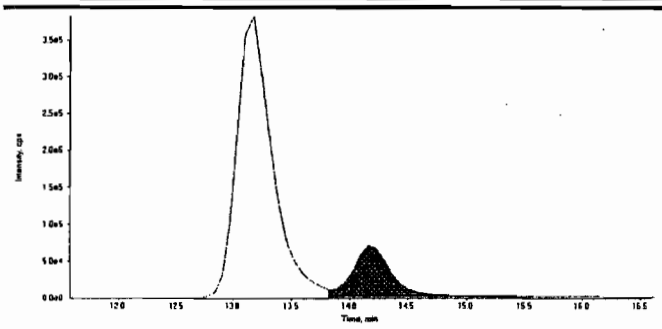
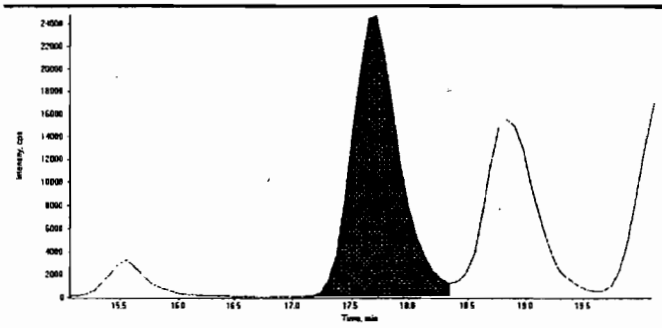
Data File	EXP0415076.wiff	**Acquisition Date**	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



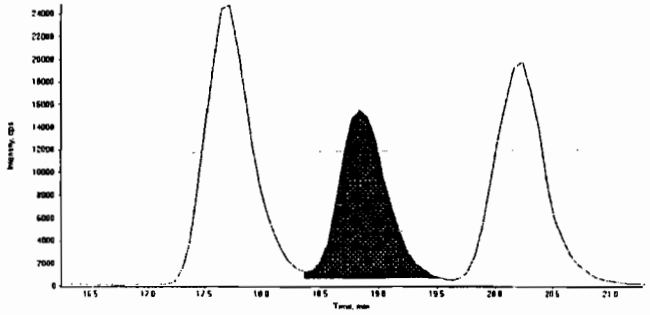
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	3.84e+007
Manual Modification	No
Amount:	554. (ng/mL)
% Accuracy:	92.40



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.77e+006
Manual Modification	No
Amount:	609. (ng/mL)
% Accuracy:	102.00



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	7.07e+005
Manual Modification	No
Amount:	575. (ng/mL)
% Accuracy:	95.80



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	4.36e+005
Manual Modification	No
Amount:	665. (ng/mL)
% Accuracy:	111.00

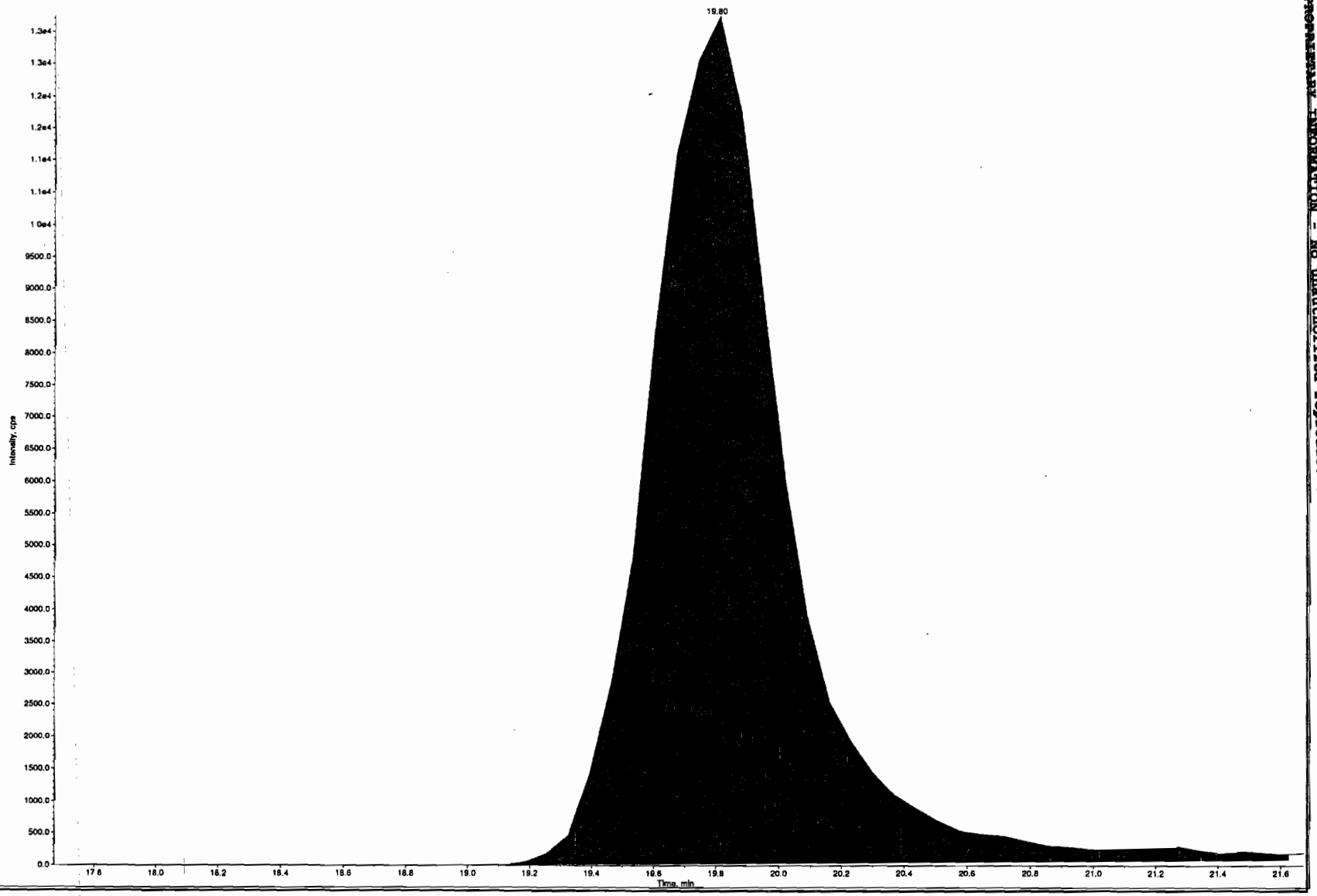
Before Jan 4/23/10

Sample Name: "WXX100416-56CCV" Sample ID: "[1]LER" File: "EXP0415076.wiff"
Peak Name "PETN" Mass(es): "361.1/62.0 amu"
Comment "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 639. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 6:34:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.8 min
Area: 6.05e+005 counts
Height: 1.32e+004 cps
Start Time: 19.0 min
End Time: 21.6 min



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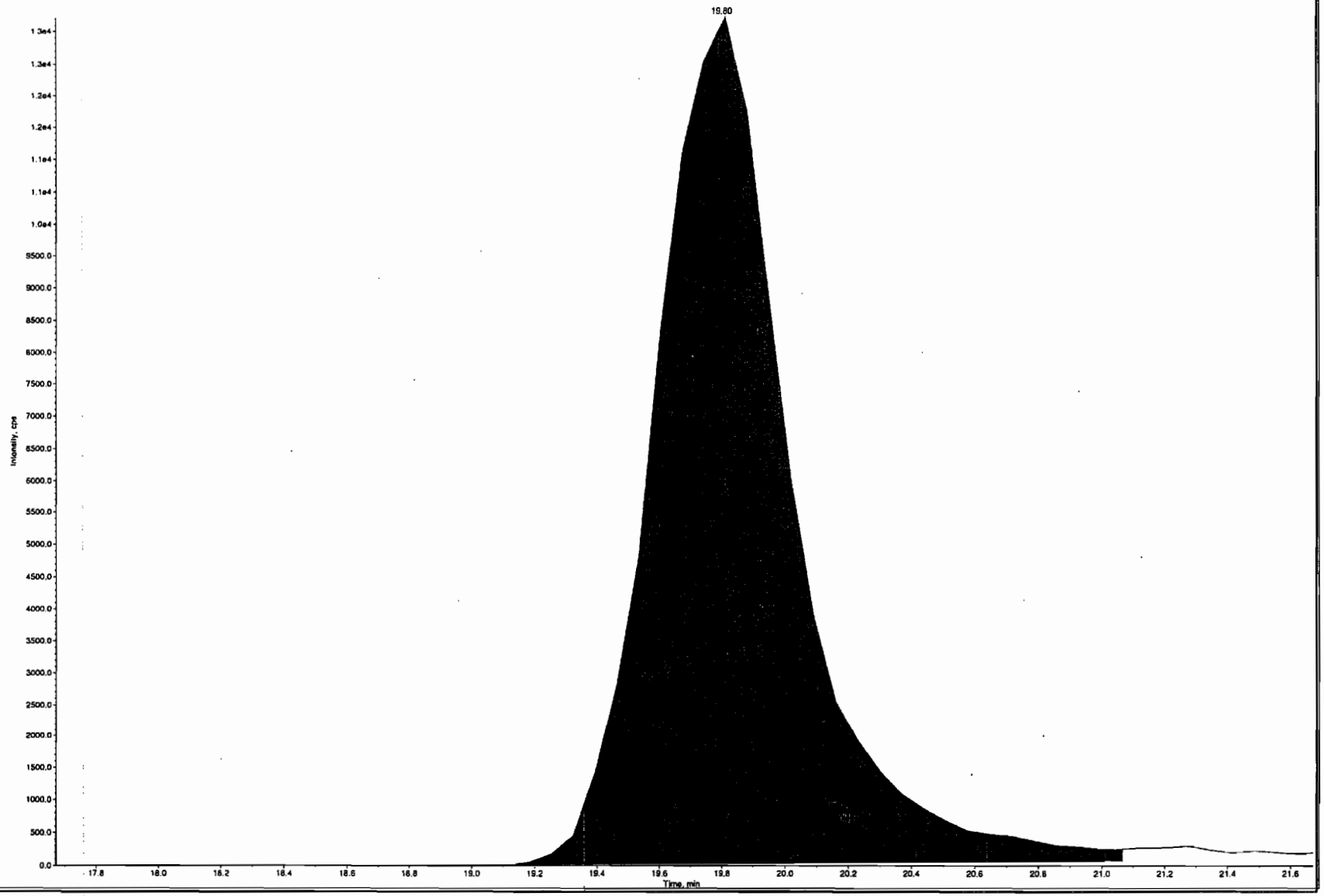
after ACR 4/23/10

Sample Name: "WXX100416-56CCV" Sample ID: "[1]LER" File: "EXP0415076.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 631. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 6:34:58 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 19.8 min
Area: 4.00e+005 counts
Height: 1.32e+004 cps
Start Time: 19.1 min
End Time: 21.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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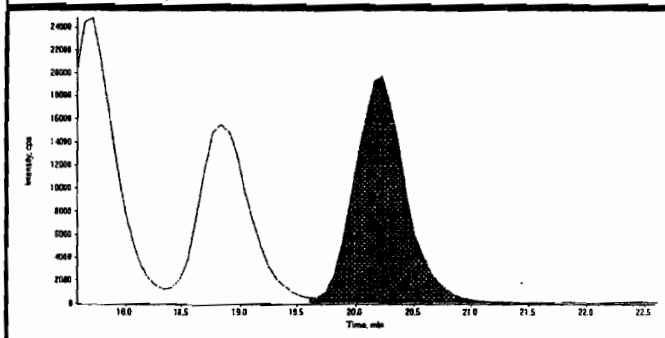
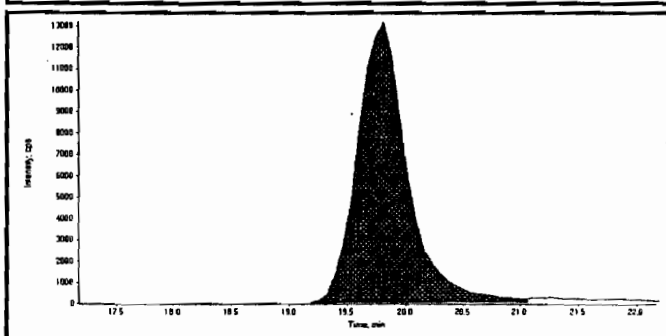
Data File	EXP0415076.wiff	**Acquisition Date**	4/16/2010 6:34:58 PM
Sample Name	WXX100416-56CCV	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	6.05e+005
Manual Modification	No
Amount:	652. (ng/mL)
% Accuracy:	109.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	4.00e+005
Manual Modification	Yes
Amount:	631. (ng/mL)
% Accuracy:	105.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 1834
Standard Number WXX100416-56CCV
Data File EXP0415076a

HMX	90.8
RDX	86.3
135-Trinitrobenzene	86.9
13-Dinitrobenzene	84.4
Tetryl	86.4
246-Trinitrotoluene	90.2
Nitrobenzene	97.4
34-dinitrotoluene	85.9
26-dinitrotoluene	94.1
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	92.4
2-Amino-46-dinitrotoluene	102.0
2-Nitrotoluene	95.8
4-Nitrotoluene	111.0
3-Nitrotoluene	109.0
PETN	105.0
TOTAL	1521.6
AVERAGE	95.1

Hmm 04/27/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Jar 4/30/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415078.wiff

Analysis Date: 16-APR-10 19:26

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.3	98	
2,4,6-Trinitrotoluene	40	42.4	106	
2,4-Dinitrotoluene	40	34.6	86	
2,6-Dinitrotoluene	40	31.9	80	
2-Amino-4,6-dinitrotoluene	40	36.5	91	
3,4-Dinitrotoluene	20	19.5	98	
4-Amino-2,6-dinitrotoluene	40	42.6	107	
HMX	40	45	113	
Nitrobenzene	40	47.9	120	
PETN	40	49.4	124	
RDX	40	51.4	128	
Tetryl	40	36.7	92	
m-Dinitrobenzene	40	40.8	102	
m-Nitrotoluene	40	44.8	112	
o-Nitrotoluene	40	34.2	86	
p-Nitrotoluene	40	35.1	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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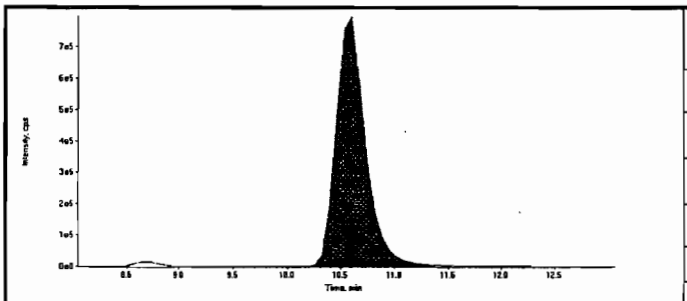
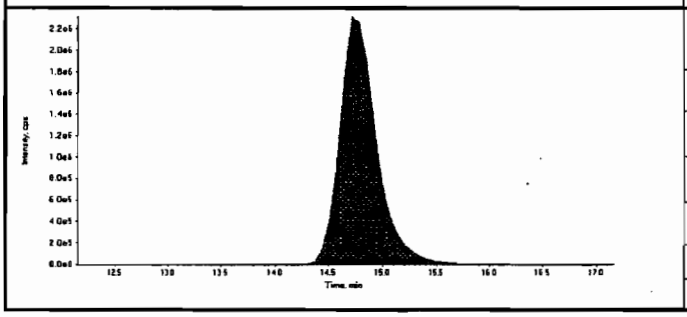
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

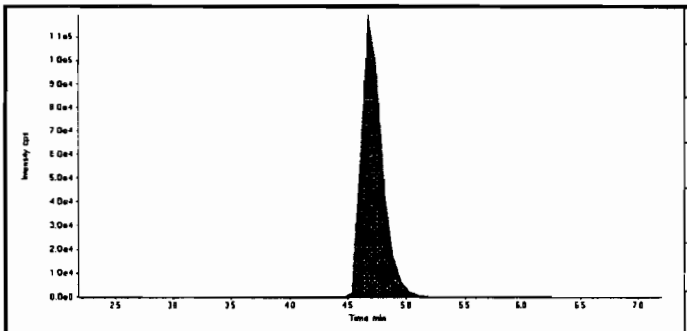
Data File	EXP0415078.wiff	**Acquisition Date**	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



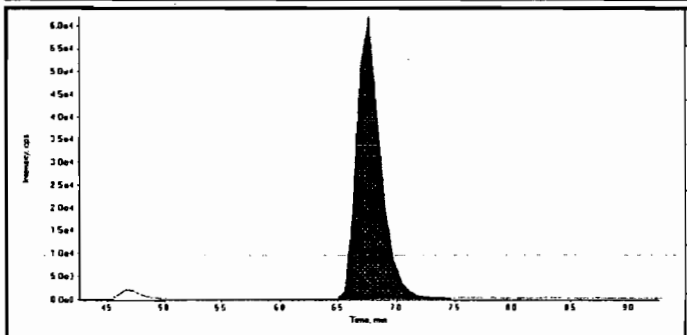
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	55600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.45e+006
Manual Modification	No
Amount:	45.0 (ng/mL)
% Accuracy:	113.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.79e+005
Manual Modification	No
Amount:	51.4 (ng/mL)
% Accuracy:	128.00

HJM 04/23/10 LCA 4/23/10

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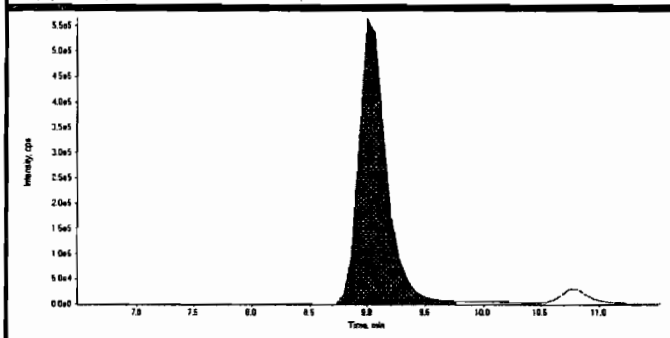
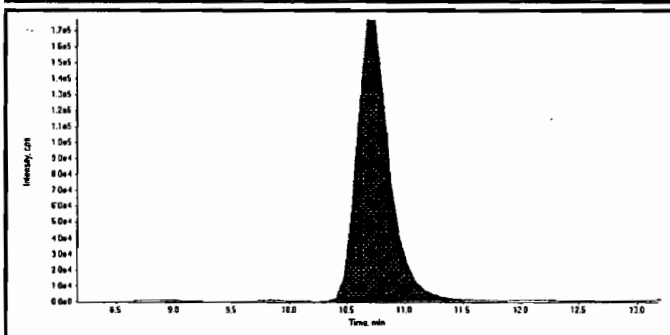
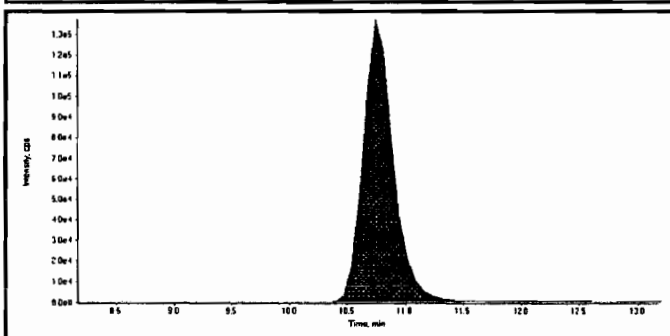
Data File	EXP0415078.wiff	**Acquisition Date**	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



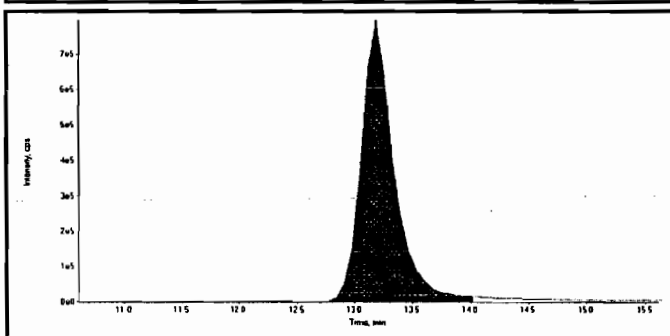
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	9.60e+006
Manual Modification	No
Amount:	39.3 (ng/mL)
% Accuracy:	98.20



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.54e+006
Manual Modification	No
Amount:	40.8 (ng/mL)
% Accuracy:	102.00



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	2.52e+006
Manual Modification	No
Amount:	36.7 (ng/mL)
% Accuracy:	91.70



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.58e+007
Manual Modification	No
Amount:	42.4 (ng/mL)
% Accuracy:	106.00

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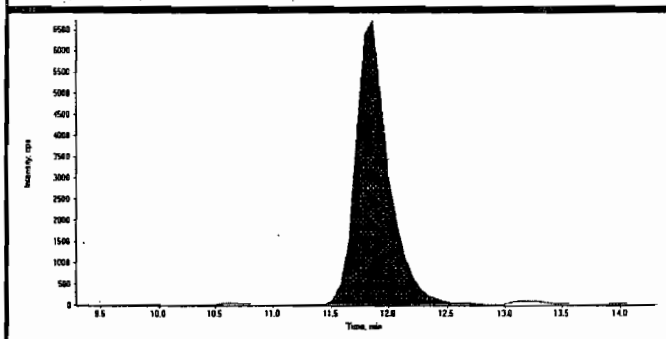
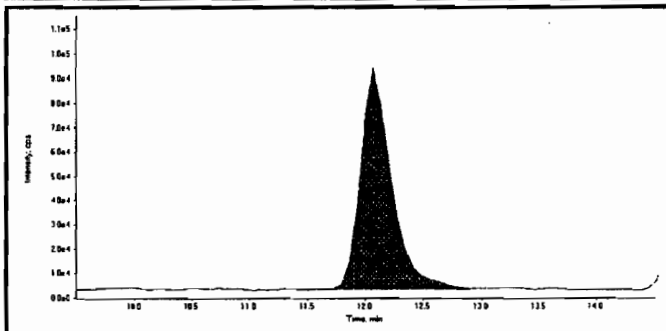
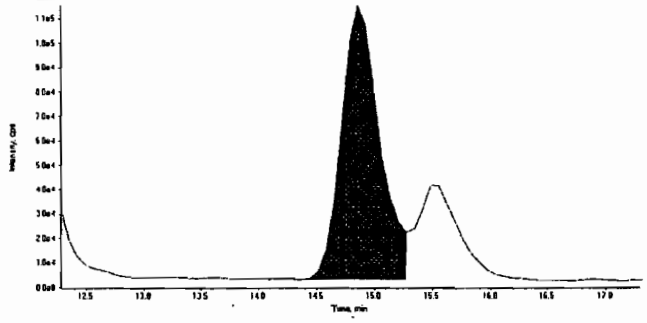
Data File	EXP0415078.wiff	**Acquisition Date**	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



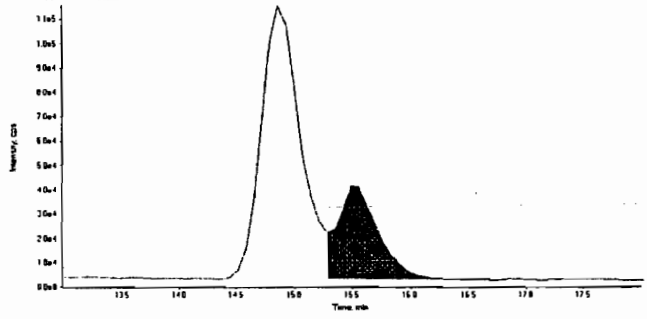
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	1.34e+005
Manual Modification	No
Amount:	47.9 (ng/mL)
% Accuracy:	120.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	1.74e+006
Manual Modification	No
Amount:	19.5 (ng/mL)
% Accuracy:	97.70



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	2.66e+006
Manual Modification	No
Amount:	31.9 (ng/mL)
% Accuracy:	79.70



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.02e+006
Manual Modification	No
Amount:	34.6 (ng/mL)
% Accuracy:	86.40

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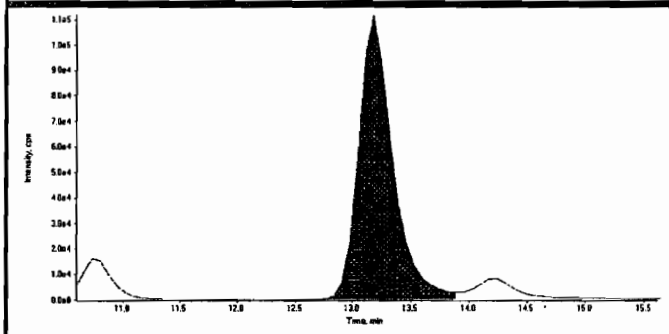
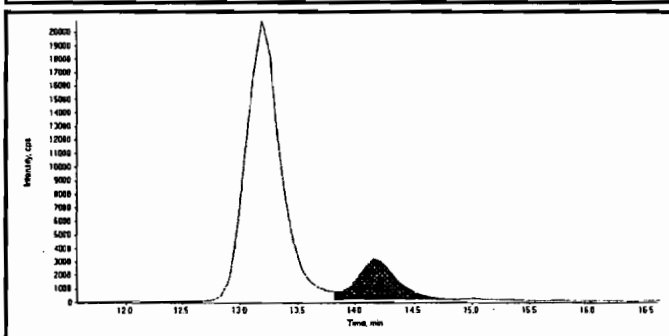
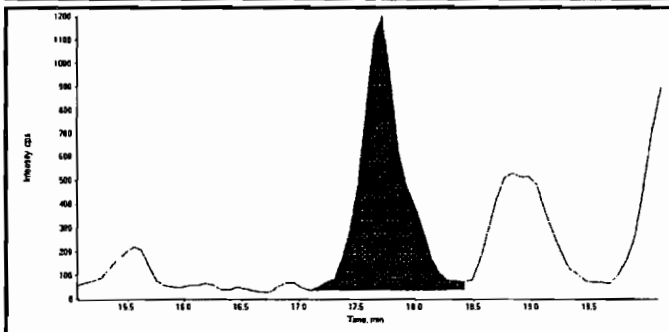
Data File	EXP0415078.wiff	**Acquisition Date**	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



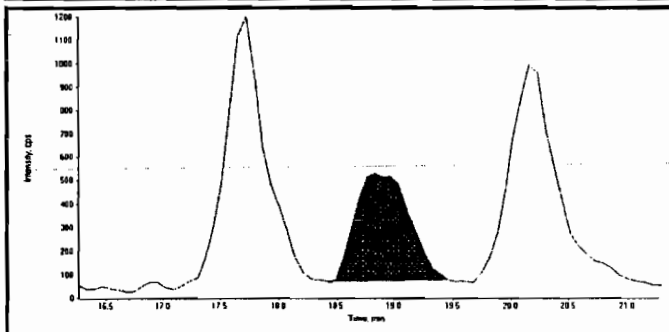
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.31e+006
Manual Modification	No
Amount:	42.6 (ng/mL)
% Accuracy:	107.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	7.58e+004
Manual Modification	No
Amount:	36.5 (ng/mL)
% Accuracy:	91.20



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	2.87e+004
Manual Modification	No
Amount:	34.2 (ng/mL)
% Accuracy:	85.50

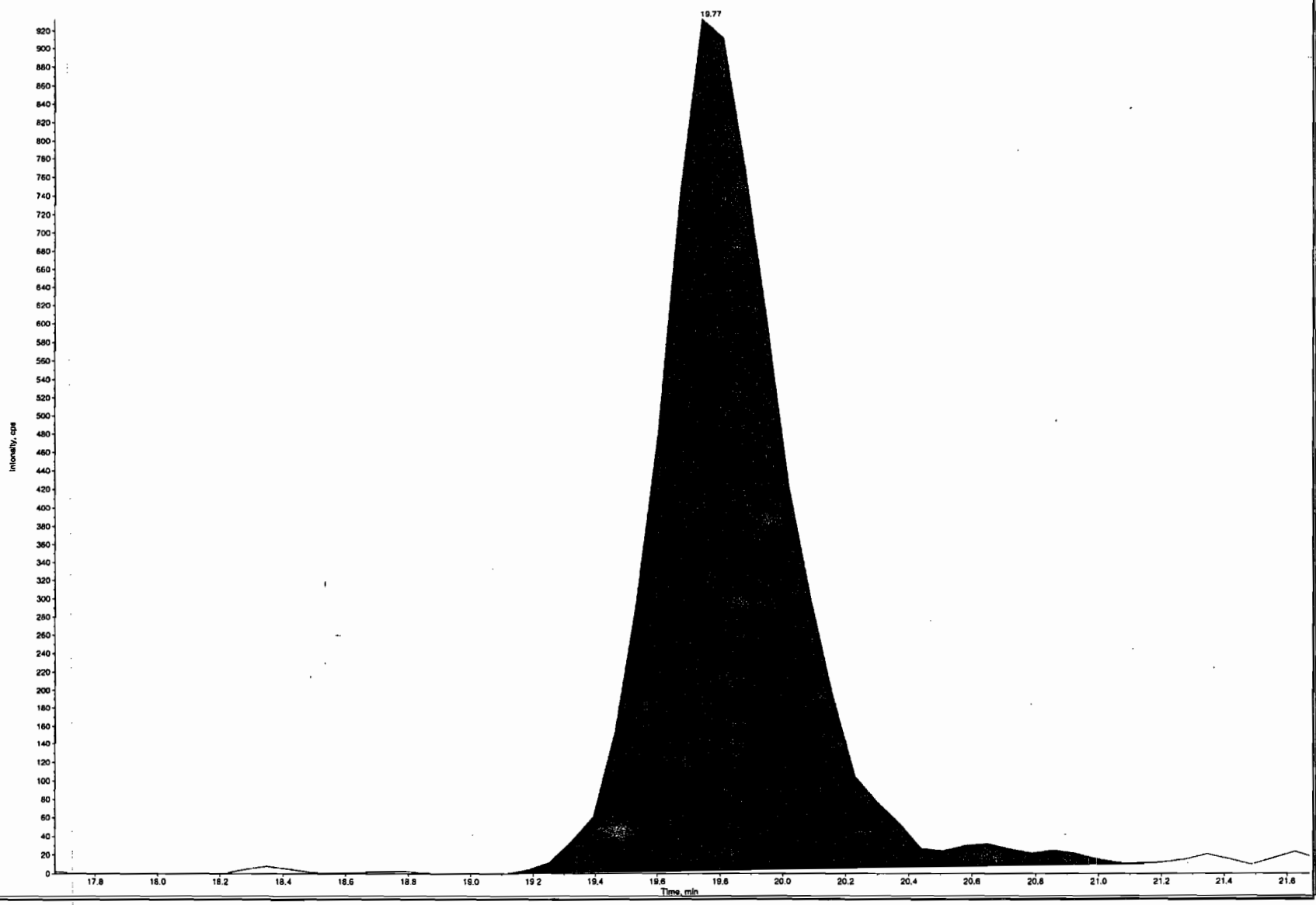


Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	1.52e+004
Manual Modification	No
Amount:	35.1 (ng/mL)
% Accuracy:	87.80

Before dcr 4/23/10

Sample Name: "WXX100416-57CRI" Sample ID: "[1]LER" File: "EXP0415078.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.0	ng/mL
Calculated Conc:	50.6	ng/mL
Acq. Date:	4/16/2010	
Acq. Time:	7:26:48 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	100.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	60.0	sec
Expected RT:	19.7	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	19.7	min
Area:	2.61e+004	counts
Height:	9.10e+002	cps
Start Time:	19.1	min
End Time:	21.1	min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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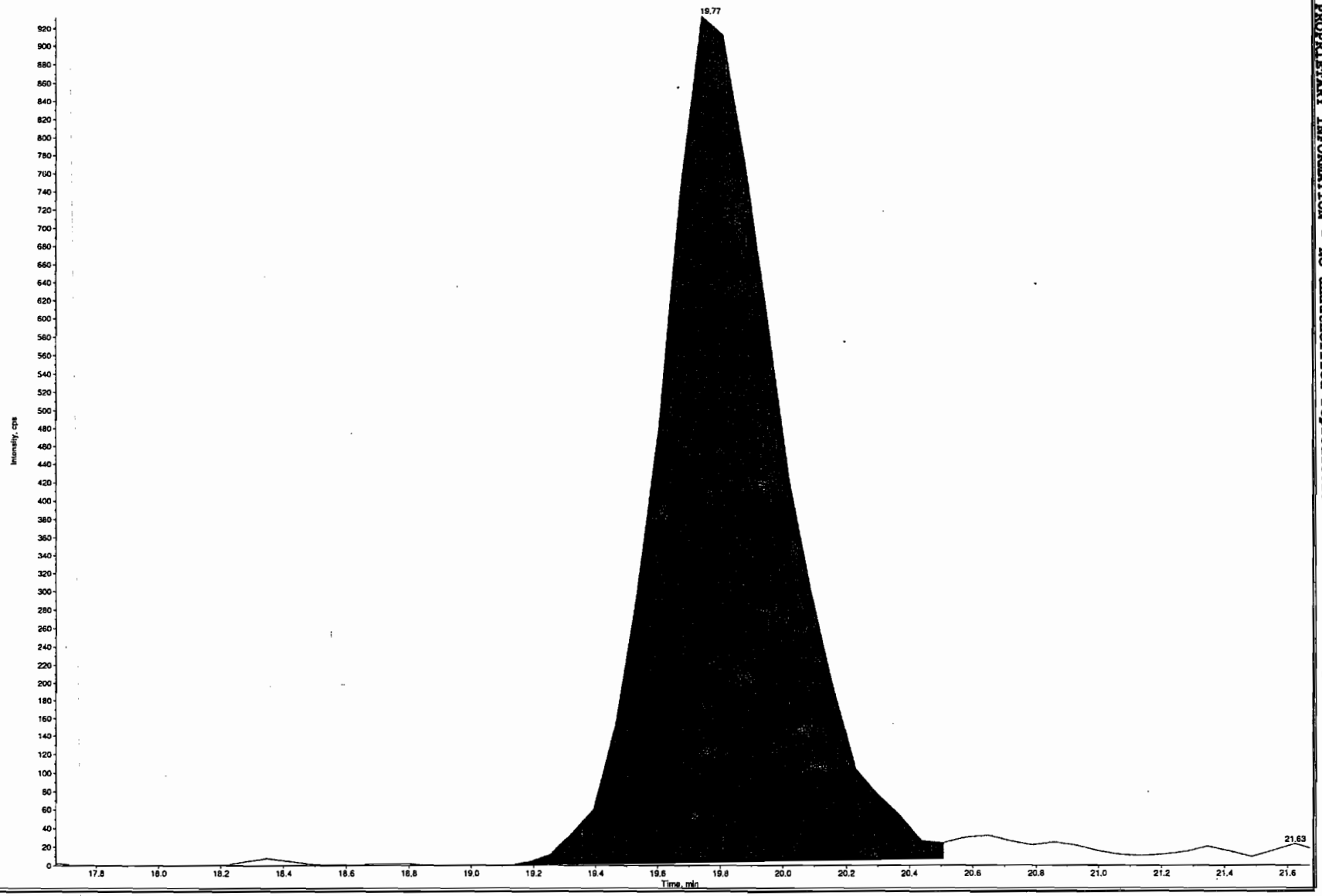
after Dan 4/23/10

Sample Name: "WXX100416-57CRI" Sample ID: "[1]LER" File: "EXP041507B.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	40.0 ng/mL
Calculated Conc:	49.4 ng/mL
Acq. Date:	4/16/2010
Acq. Time:	7:26:48 PM
Modified:	Yes
RT Window:	60.0 sec
Expected RT:	19.7 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	19.8 min
Area:	2.56e+004 counts
Height:	9.47e+002 cps
Start Time:	19.1 min
End Time:	20.5 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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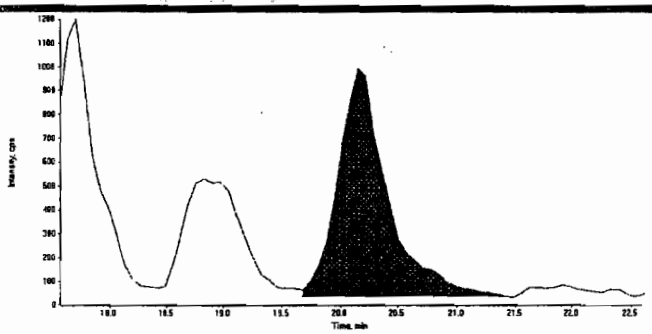
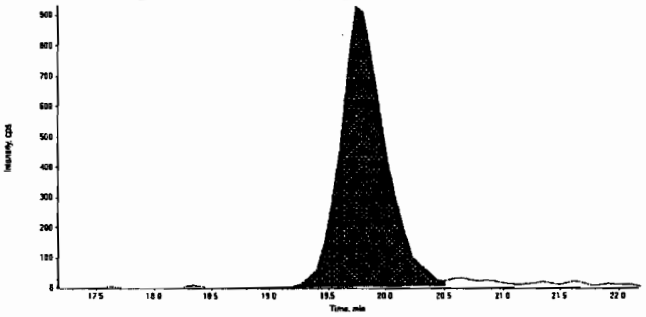
Data File	EXP0415078.wiff	**Acquisition Date**	4/16/2010 7:26:48 PM
Sample Name	WXX100416-57CRI	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	041510.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	2.93e+004
Manual Modification	No
Amount:	44.8 (ng/mL)
% Accuracy:	112.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	2.56e+004
Manual Modification	Yes
Amount:	49.4 (ng/mL)
% Accuracy:	124.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/16/10
Time of Injection 1926
Standard Number WXX100416-57CRI
Data File EXP0415078a

HMX	113.0
RDX	128.0
135-Trinitrobenzene	98.2
13-Dinitrobenzene	102.0
Tetryl	91.7
246-Trinitrotoluene	106.0
Nitrobenzene	120.0
34-dinitrotoluene	97.7
26-dinitrotoluene	79.7
24-dinitrotoluene	86.4
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	91.2
2-Nitrotoluene	85.5
4-Nitrotoluene	87.8
3-Nitrotoluene	112.0
PETN	124.0
TOTAL	1630.2
AVERAGE	101.9

Hmw 04/23/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcr 4/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090013.wiff

Analysis Date: 09–APR–10 10:23

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	98	98	
2,6–Diamino–4–nitrotoluene	100	83.7	84	
3,4–Dinitrotoluene	50	49	98	
3,5–Dinitroaniline	100	102	102	
TATB	100	102	102	
tris(o–cresyl) phosphate	100	104	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

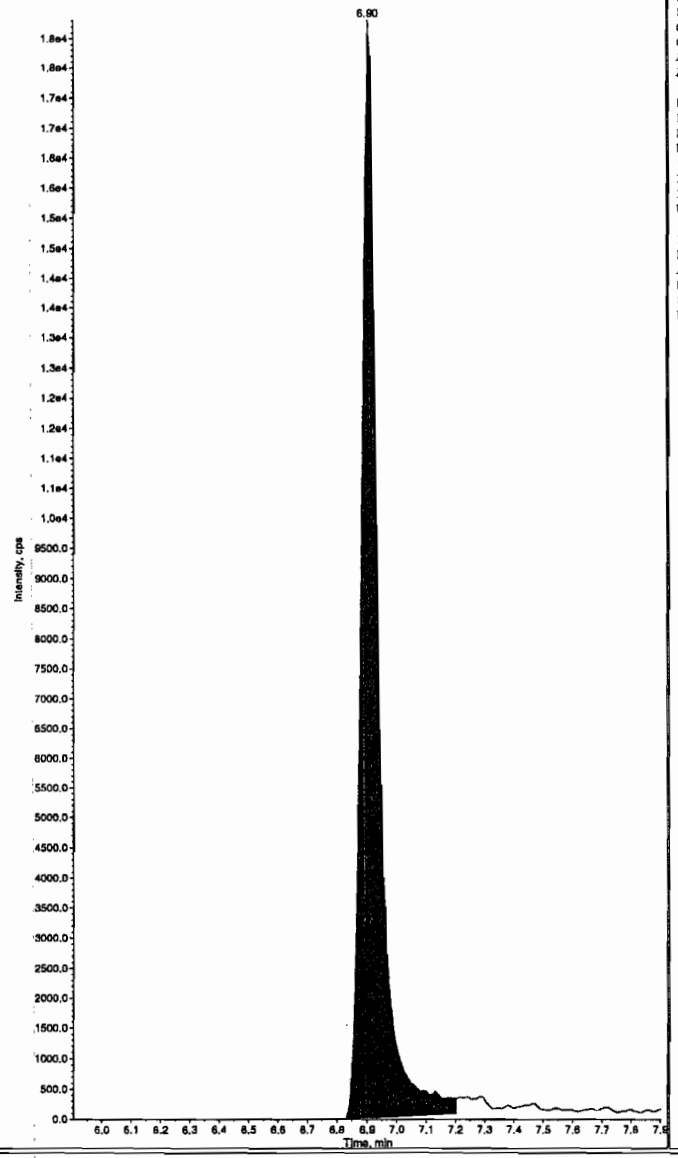
Lar 4/12/10

Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090013.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: 102. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 10:23:17 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.90 min
Area: 7.77e+004 counts
Height: 18280.220 cps
Start Time: 6.82 min
End Time: 7.20 min

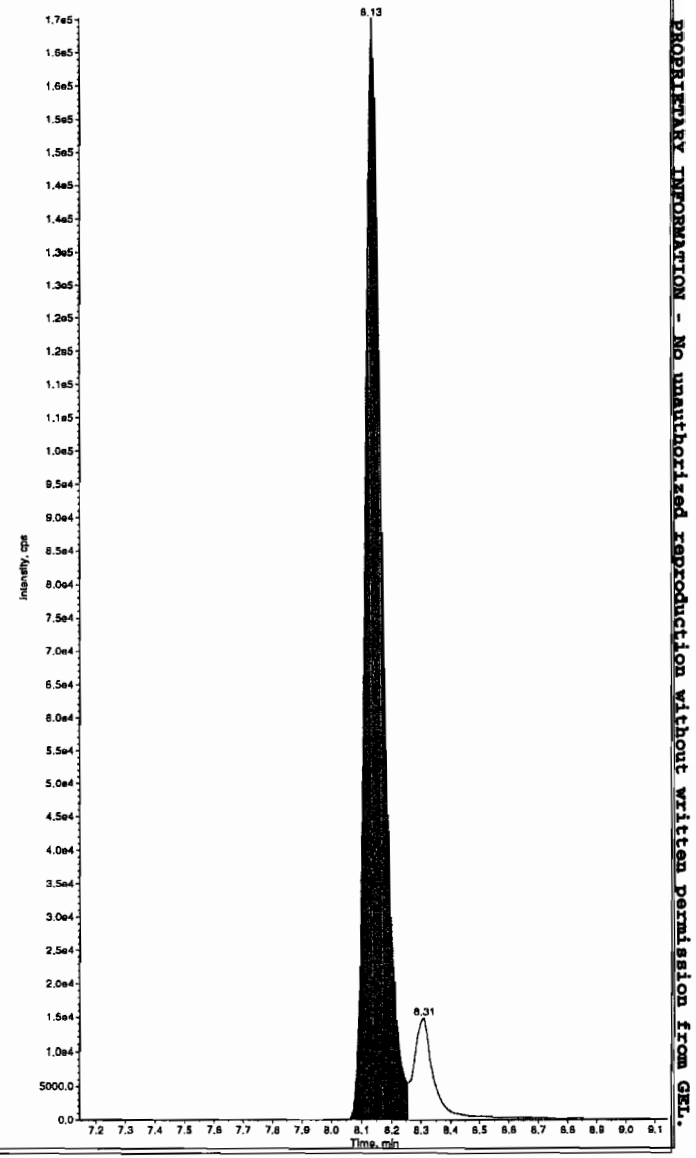


Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 10:23:17 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 6.91e+005 counts
Height: 165135.025 cps
Start Time: 8.03 min
End Time: 8.26 min



Hnm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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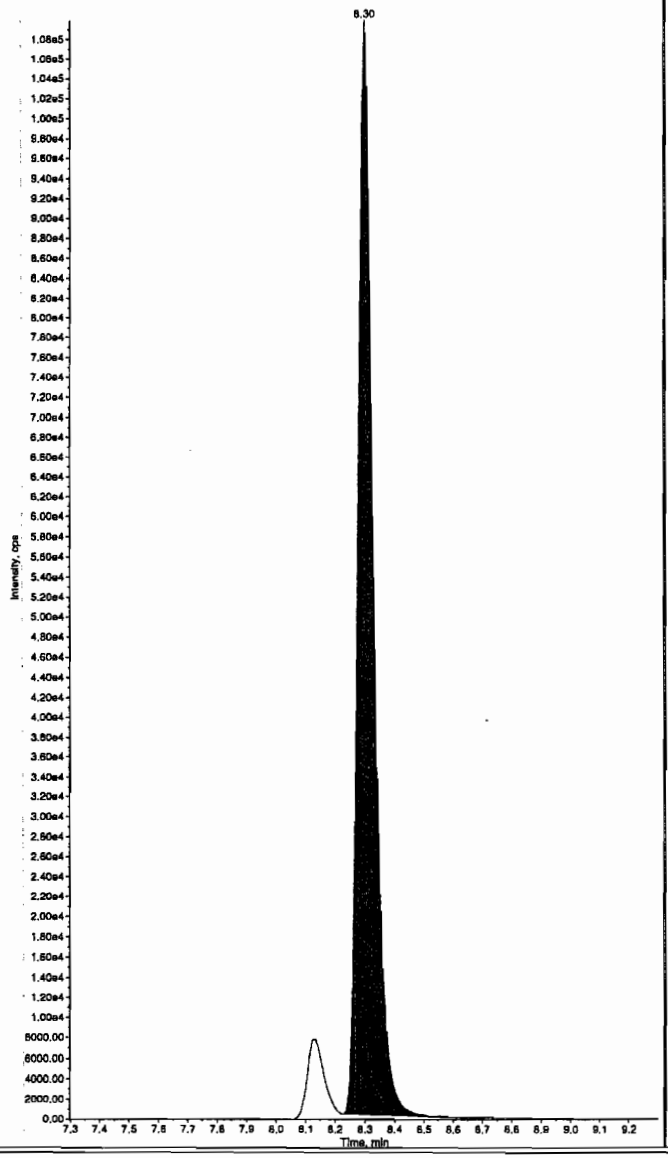
Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      50.0     ng/mL
Calculated Conc:    49.0     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       10:23:17 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:         30.0    sec
Expected RT:        8.30   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.30   min
Area:         4.15e+005   counts
Height:        109477.501  cps
Start Time:         8.23   min
End Time:           8.60   min
```

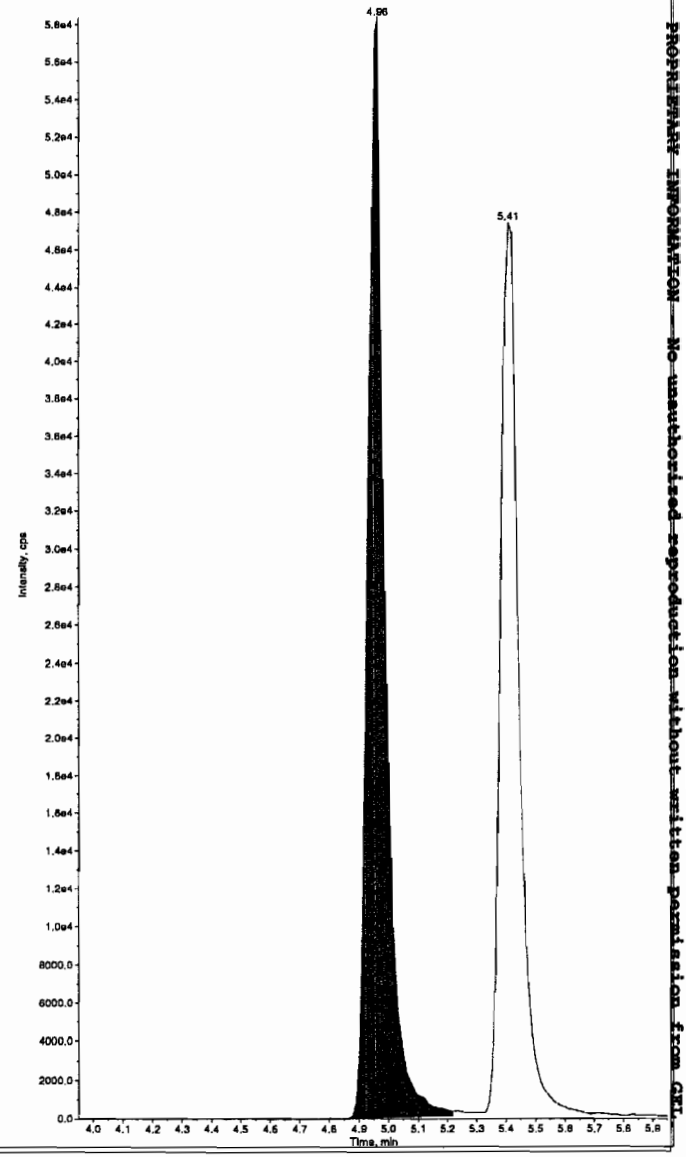


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.      ng/mL
Calculated Conc:    83.7     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       10:23:17 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:        4.95   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.96   min
Area:         2.49e+005   counts
Height:        58330.986  cps
Start Time:         4.85   min
End Time:           5.22   min
```



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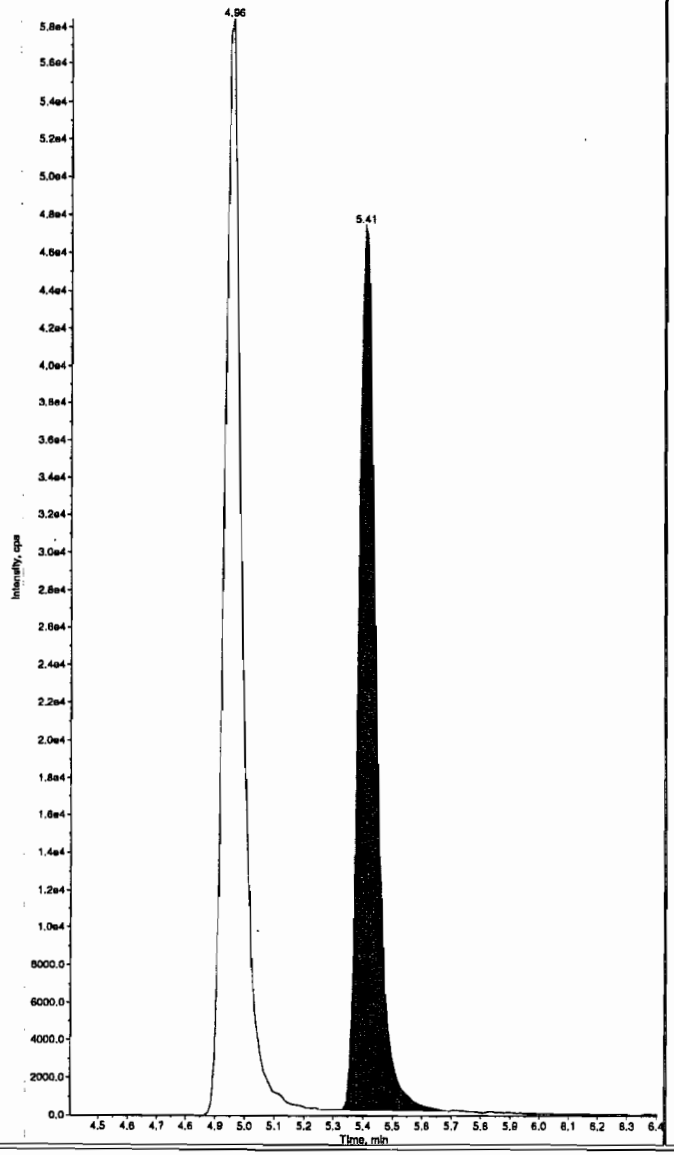
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090013.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     98.0     ng/mL
Acq. Date:        4/9/2010
Acq. Time:        10:23:17 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:        5.40    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.41    min
Area:          2.07e+005    counts
Height:         47109.501   cps
Start Time:         5.31    min
End Time:           5.68    min
```

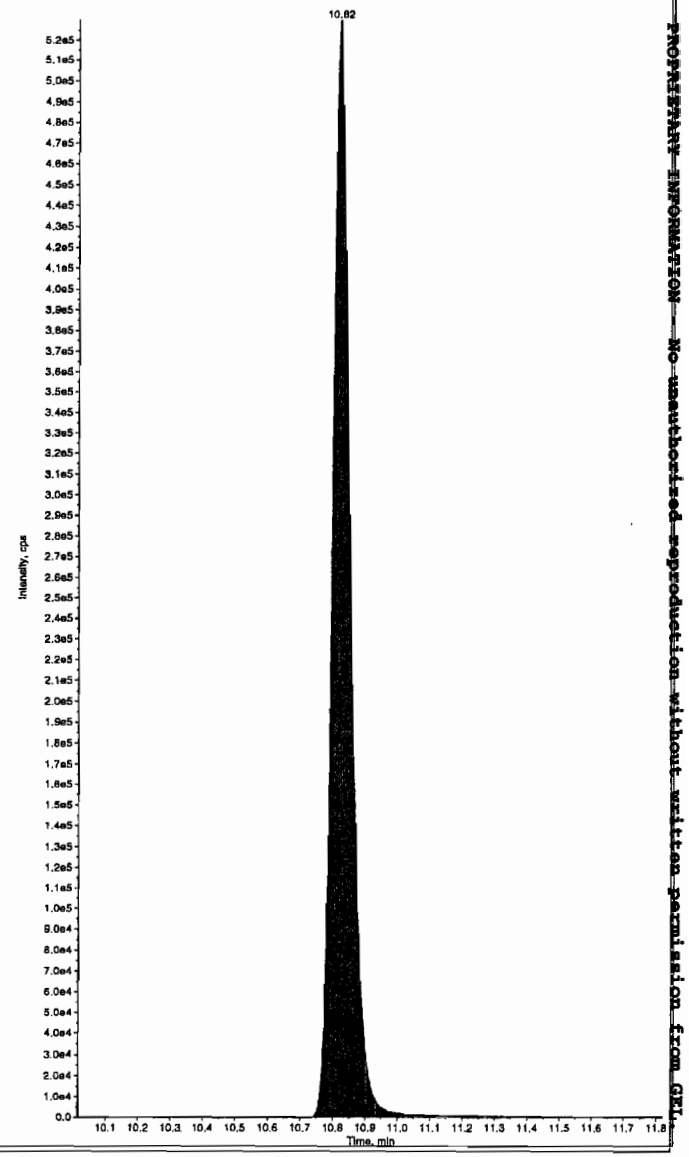


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     104.     ng/mL
Acq. Date:        4/9/2010
Acq. Time:        10:23:17 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:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8    min
Area:          2.13e+006    counts
Height:        529692.078   cps
Start Time:         10.7    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): 10–2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090024.wiff

Analysis Date: 09–APR–10 13:16

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	489	98	
2,6–Diamino–4–nitrotoluene	500	521	104	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	500	100	
TATB	500	508	102	
tris(o–cresyl) phosphate	500	507	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

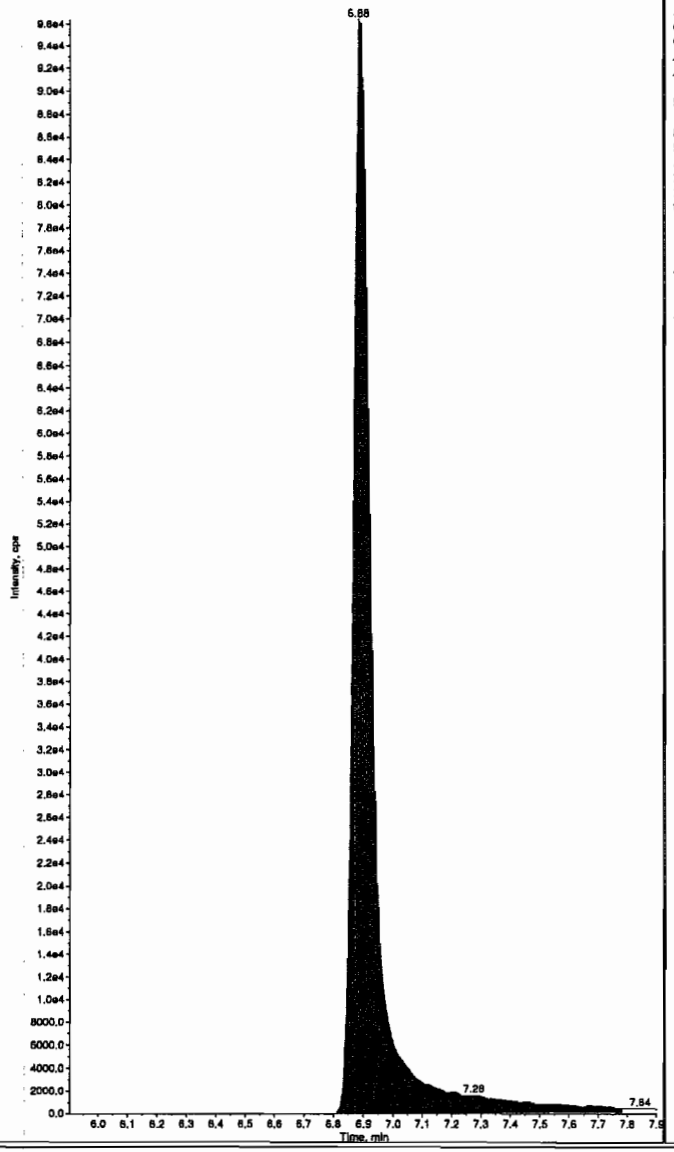
Lar 4/12/10

Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090024.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: 508. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:16:09 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.88 min
Area: 4.80e+005 counts
Height: 96336.830 cps
Start Time: 6.79 min
End Time: 7.78 min

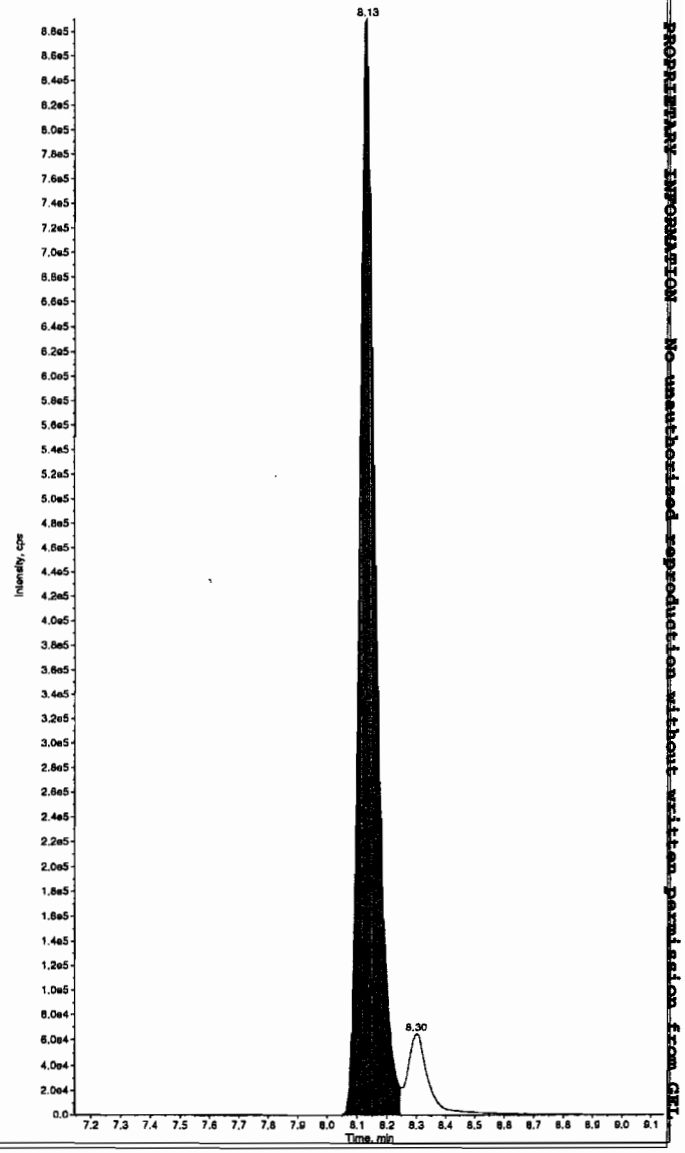


Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:16:09 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.54e+006 counts
Height: 890738.464 cps
Start Time: 8.04 min
End Time: 8.25 min



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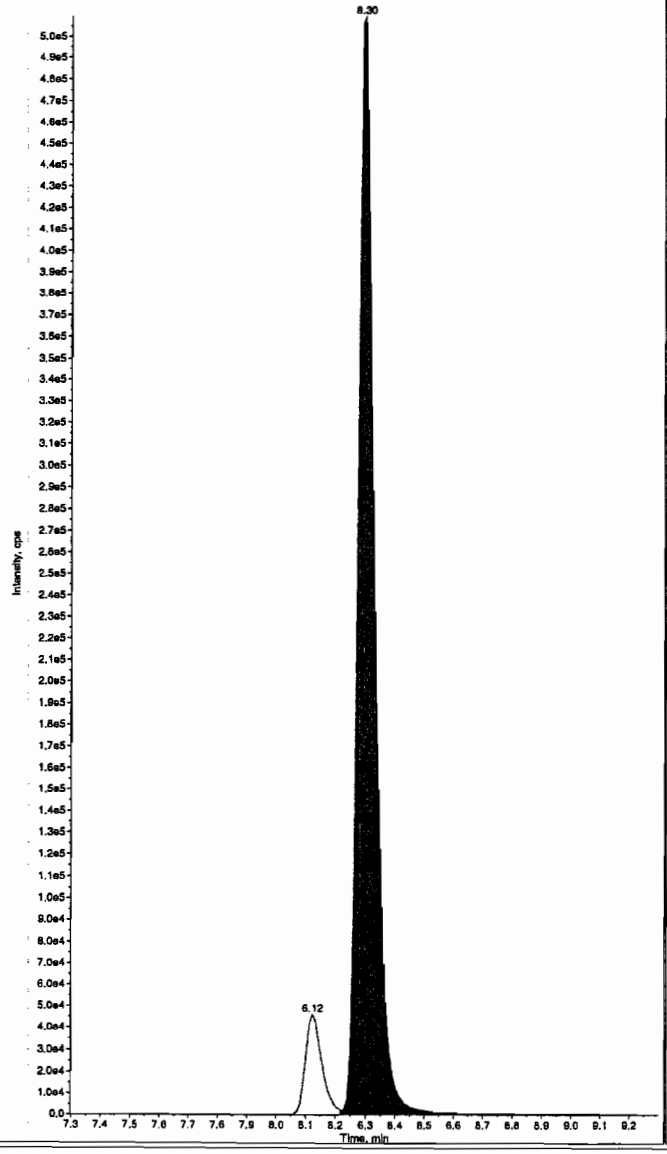
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090024.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:    232.    ng/mL
Acq. Date:       4/9/2010
Acq. Time:       1:16:09 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:        30.0     sec
Expected RT:       8.30    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.30   min
Area:         2.08e+006   counts
Height:        509094.391  cps
Start Time:         8.22   min
End Time:           8.77   min
```

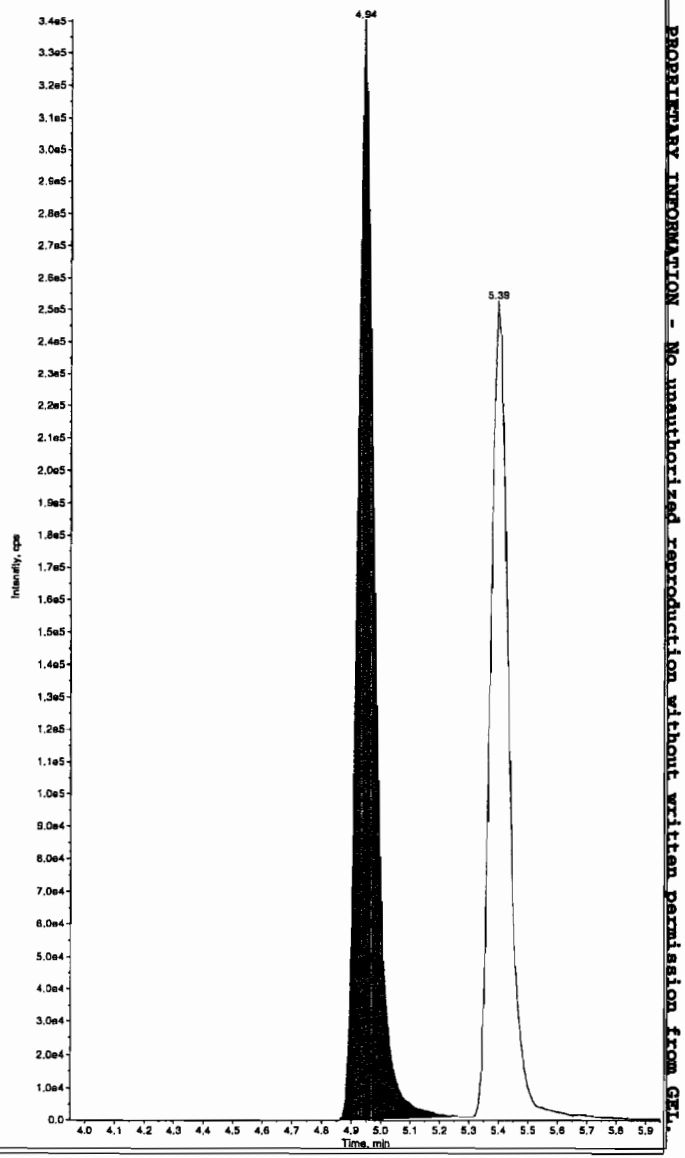


Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.    ng/mL
Calculated Conc:    521.    ng/mL
Acq. Date:       4/9/2010
Acq. Time:       1:16:09 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:       4.95    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.94   min
Area:         1.44e+006   counts
Height:        340326.263  cps
Start Time:         4.84   min
End Time:           5.24   min
```



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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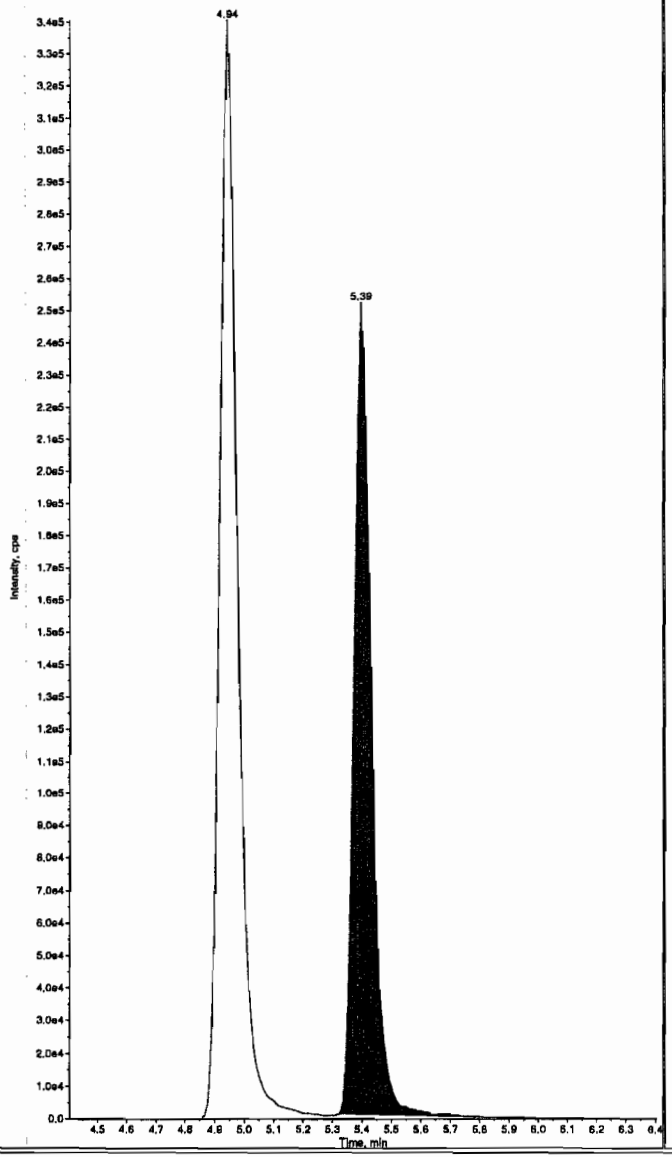
Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:16:09 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: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.39 min
Area: 1.10e+006 counts
Height: 251205.597 cps
Start Time: 5.31 min
End Time: 5.91 min

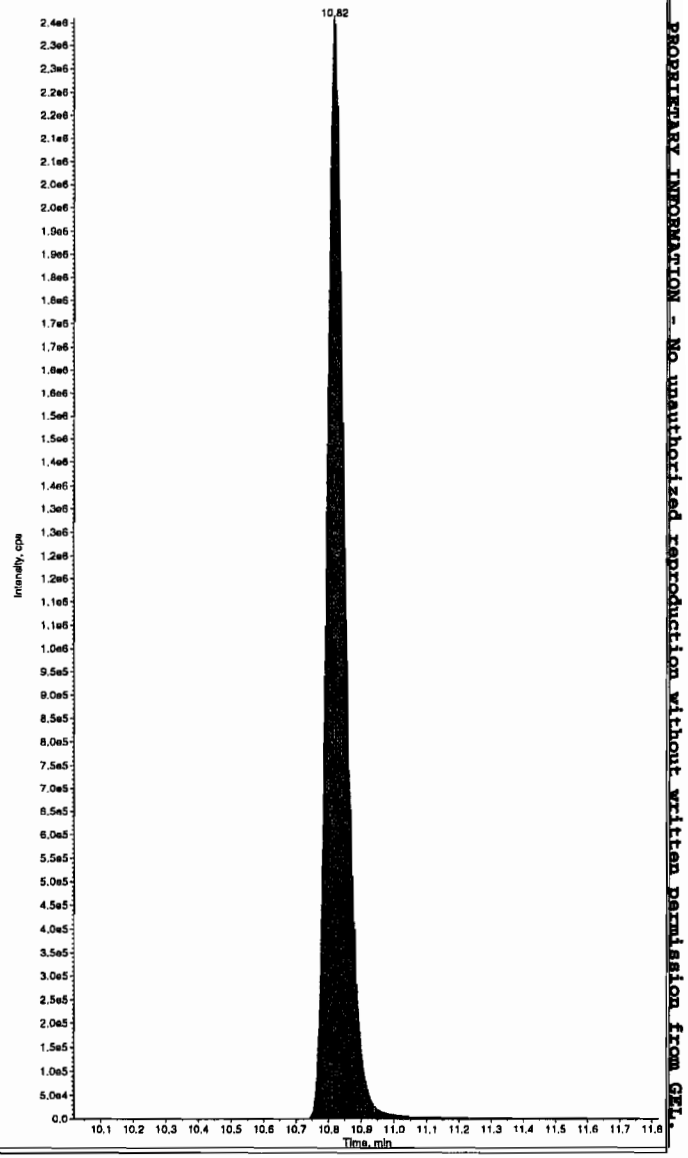


Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090024.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:16:09 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.67e+006 counts
Height: 2357662.109 cps
Start Time: 10.7 min
End Time: 11.2 min



*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): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090026.wiff

Analysis Date: 09-APR-10 13:47

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	84.4	84	
3,4-Dinitrotoluene	50	50.1	100	
3,5-Dinitroaniline	100	103	103	
TATB	100	106	106	
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

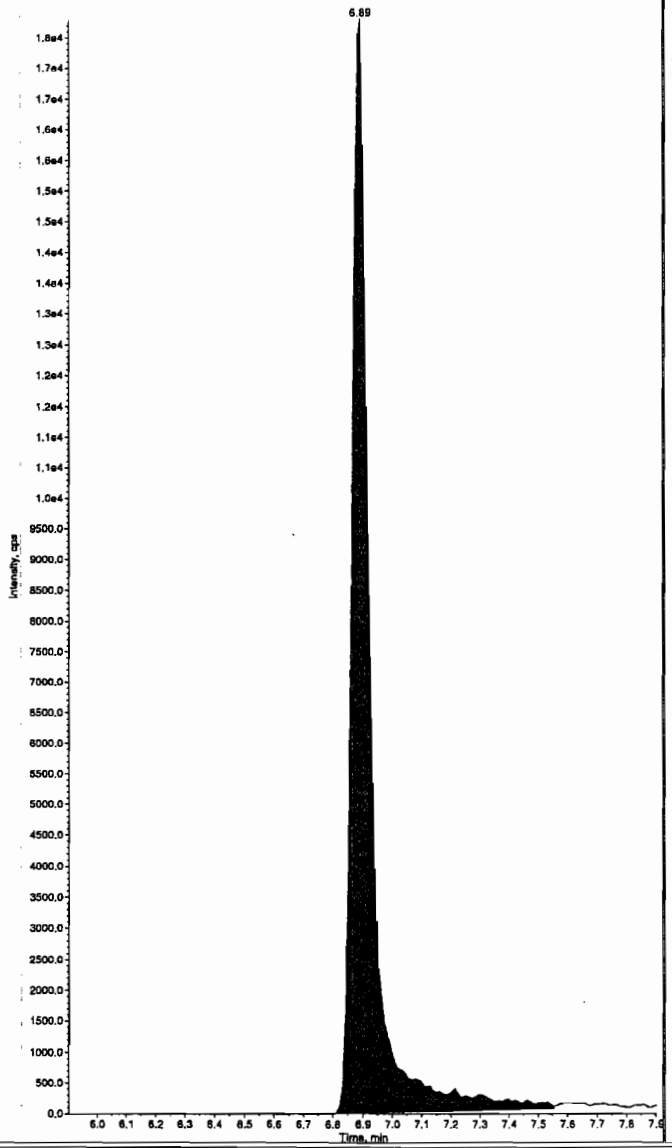
Ran 4/12/10

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090026.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: 106. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:47:34 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.89 min
Area: 8.20e+004 counts
Height: 17771.448 cps
Start Time: 6.80 min
End Time: 7.55 min

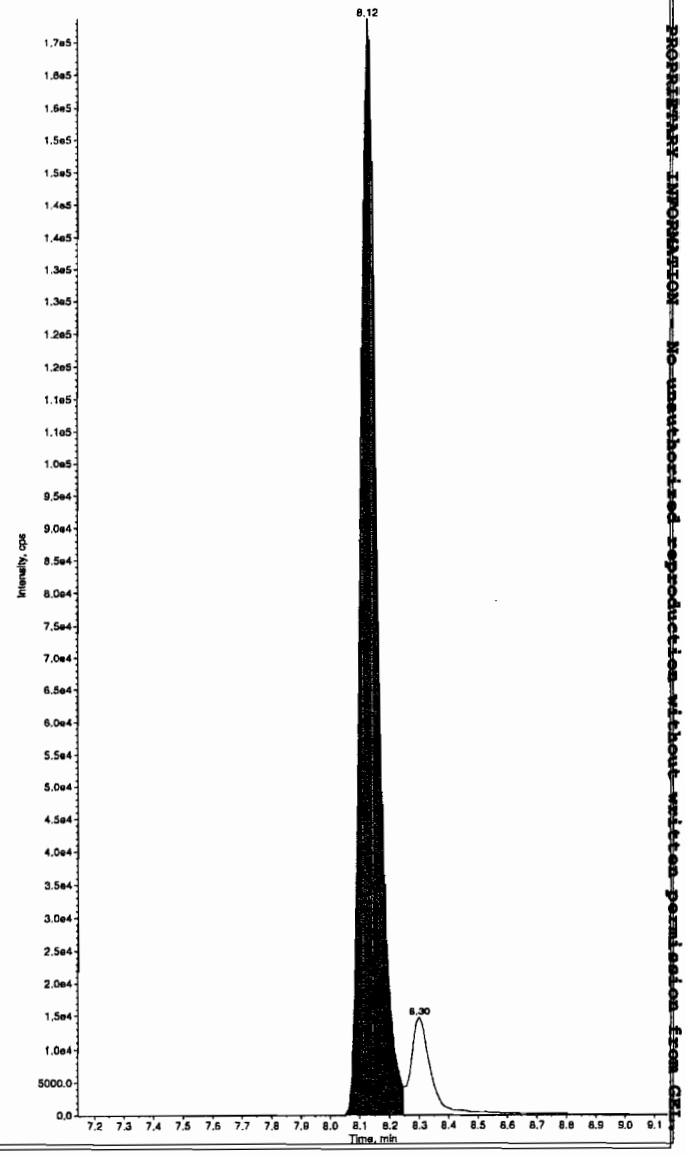


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:47:34 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 6.99e+005 counts
Height: 168687.943 cps
Start Time: 8.03 min
End Time: 8.25 min



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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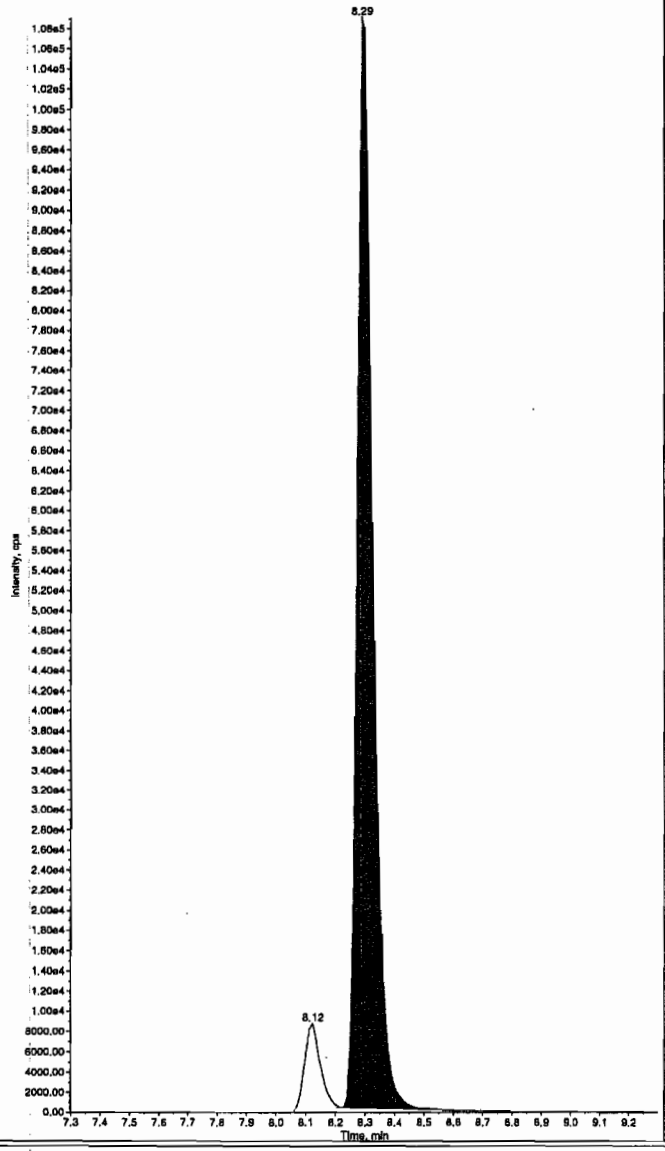
Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 50.1 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:47:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 4.25e+005 counts
Height: 108659.401 cps
Start Time: 8.22 min
End Time: 8.58 min

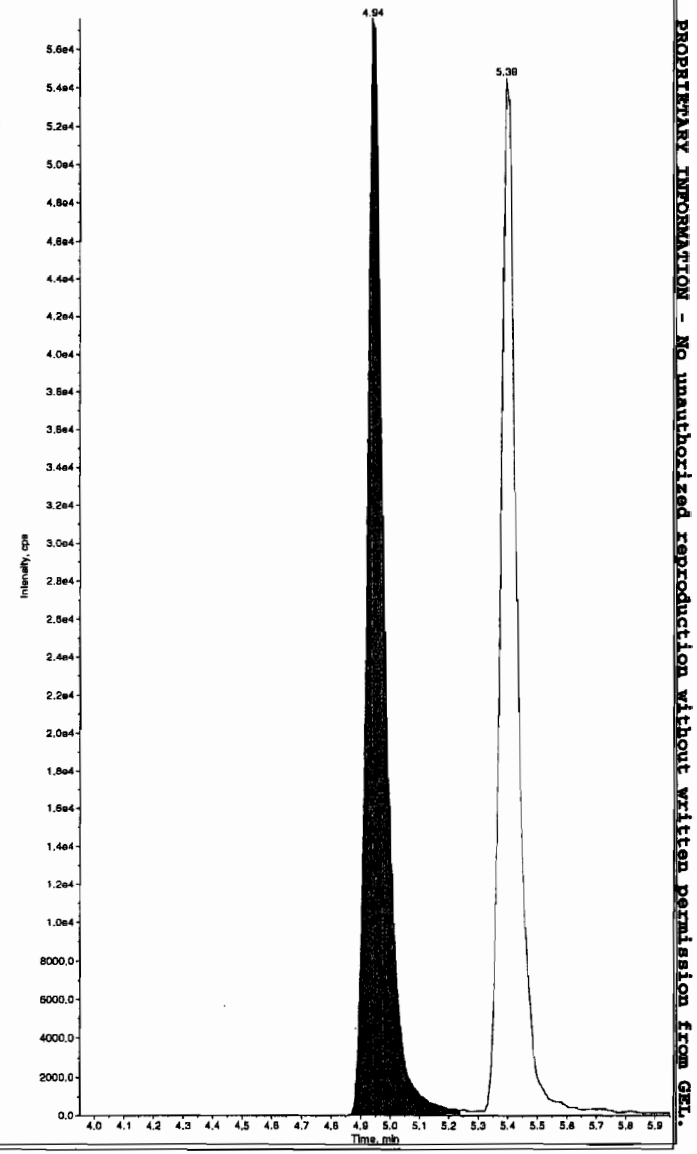


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 84.4 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:47:34 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 2.51e+005 counts
Height: 57584.732 cps
Start Time: 4.82 min
End Time: 5.24 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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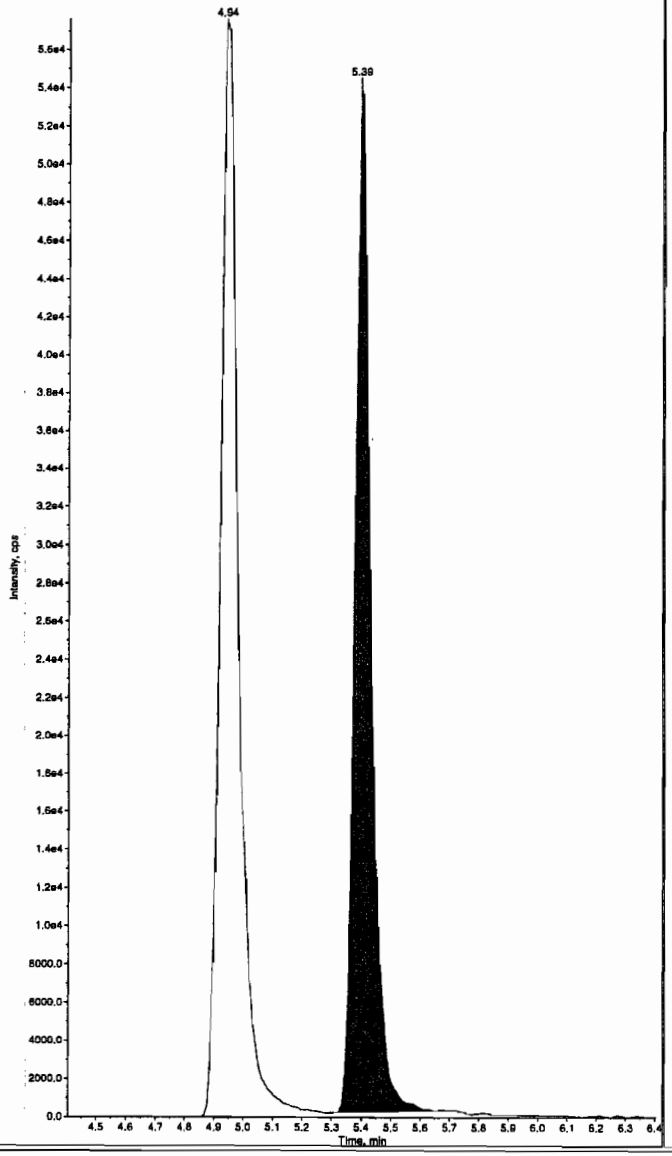
Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:47:34 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: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.39 min
Area: 2.15e+005 counts
Height: 54232.807 cps
Start Time: 5.28 min
End Time: 5.65 min

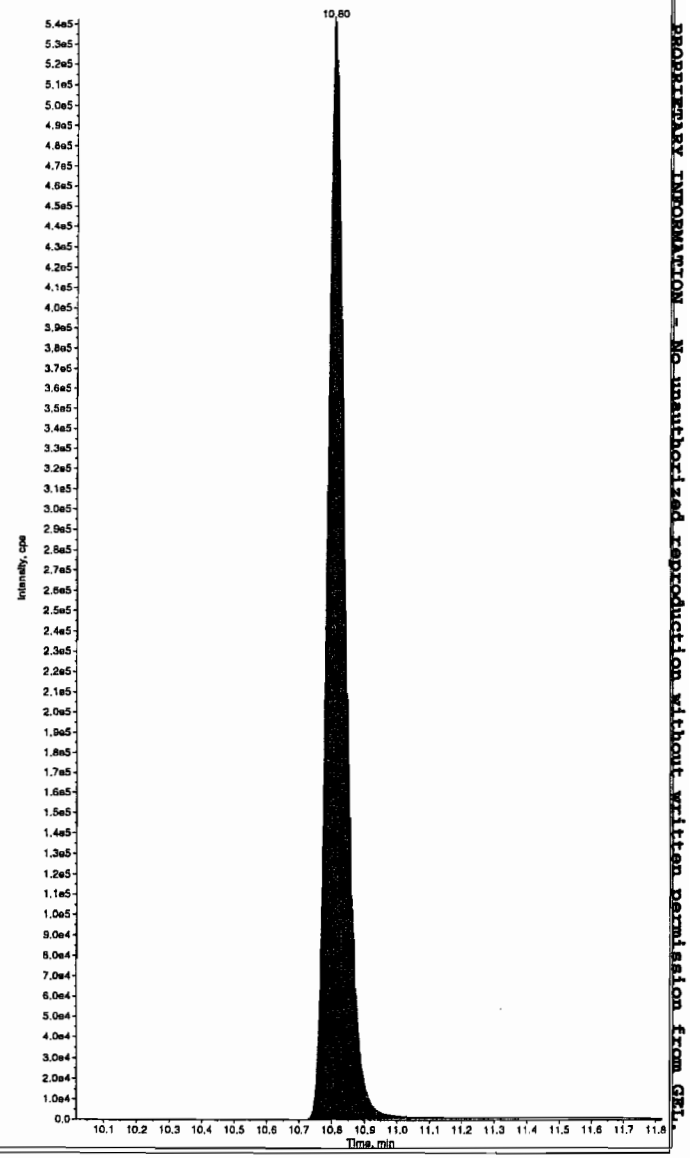


Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 1:47:34 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.11e+006 counts
Height: 542095.947 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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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS04090037.wiff

Analysis Date: 09–APR–10 16:40

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	489	98	
2,6–Diamino–4–nitrotoluene	500	476	95	
3,4–Dinitrotoluene	250	234	94	
3,5–Dinitroaniline	500	483	97	
TATB	500	490	98	
tris(o–cresyl) phosphate	500	499	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

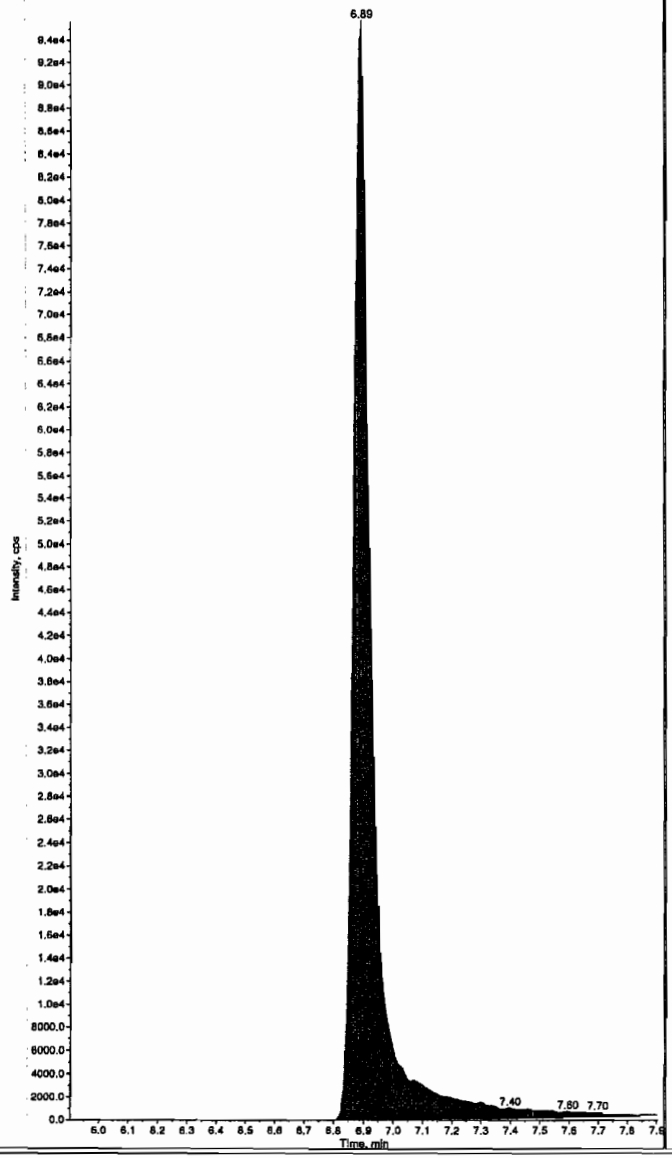
Lan 4/12/10

Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090037.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: 490. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:40:18 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.89 min
Area: 4.63e+005 counts
Height: 95650.513 cps
Start Time: 6.79 min
End Time: 7.84 min

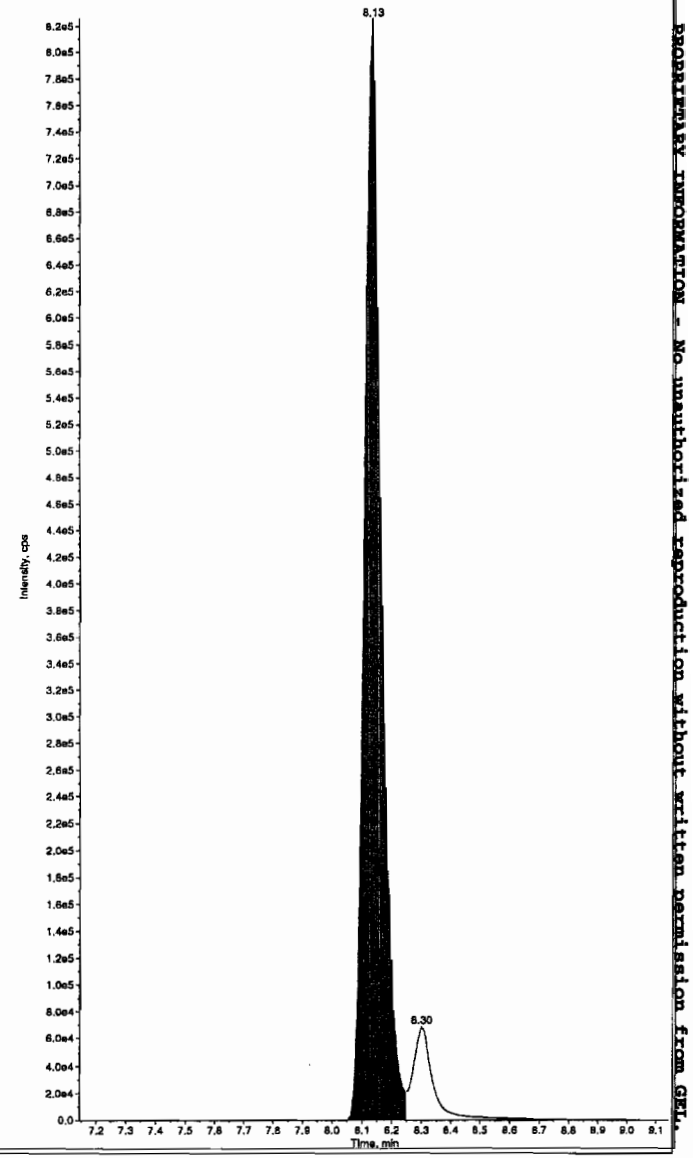


Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:40:18 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.43e+006 counts
Height: 825812.988 cps
Start Time: 8.03 min
End Time: 8.25 min



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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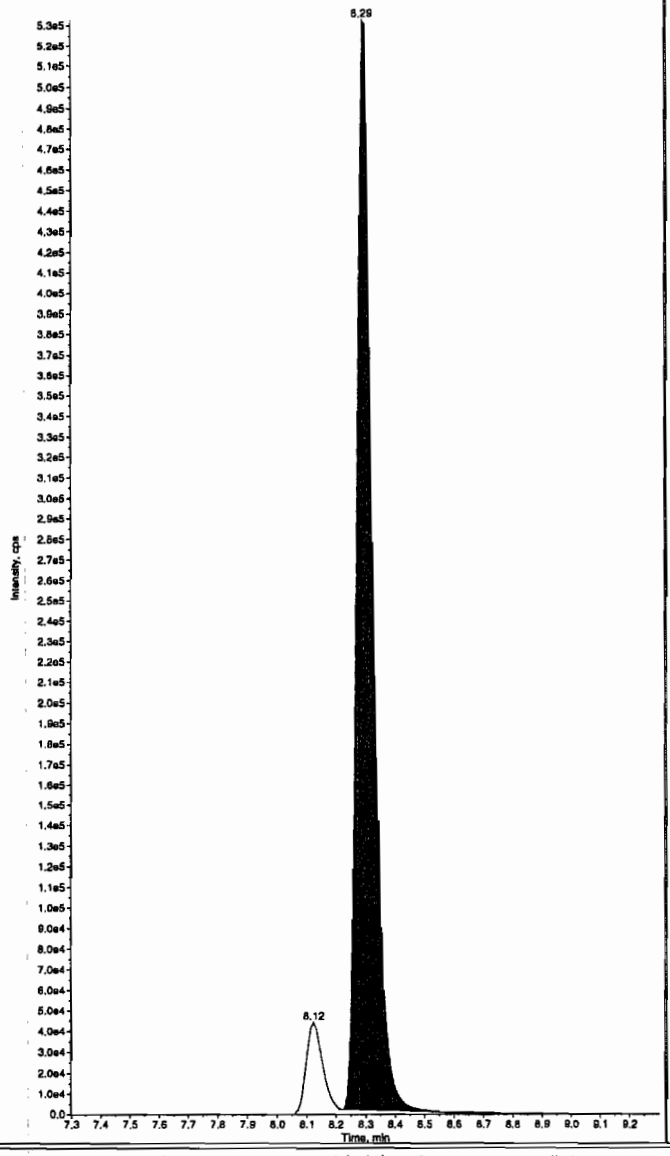
Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 234. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:40:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 2.10e+006 counts
Height: 530511.414 cps
Start Time: 8.22 min
End Time: 8.59 min

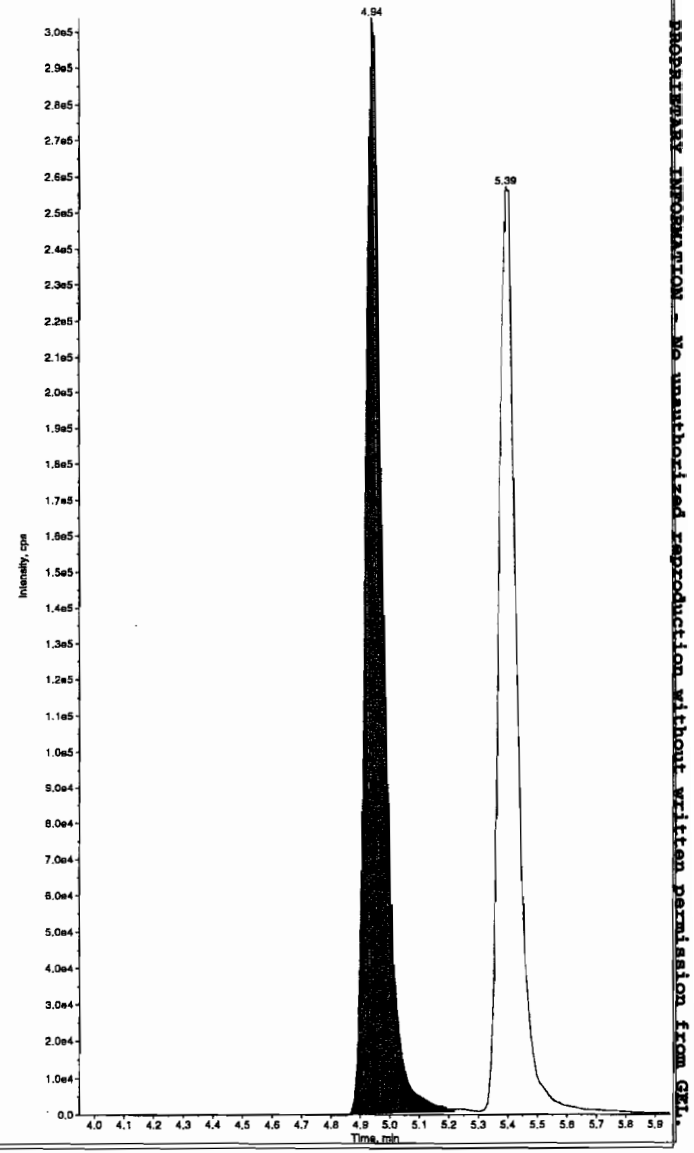


Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 476. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:40:18 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.32e+006 counts
Height: 303445.587 cps
Start Time: 4.85 min
End Time: 5.22 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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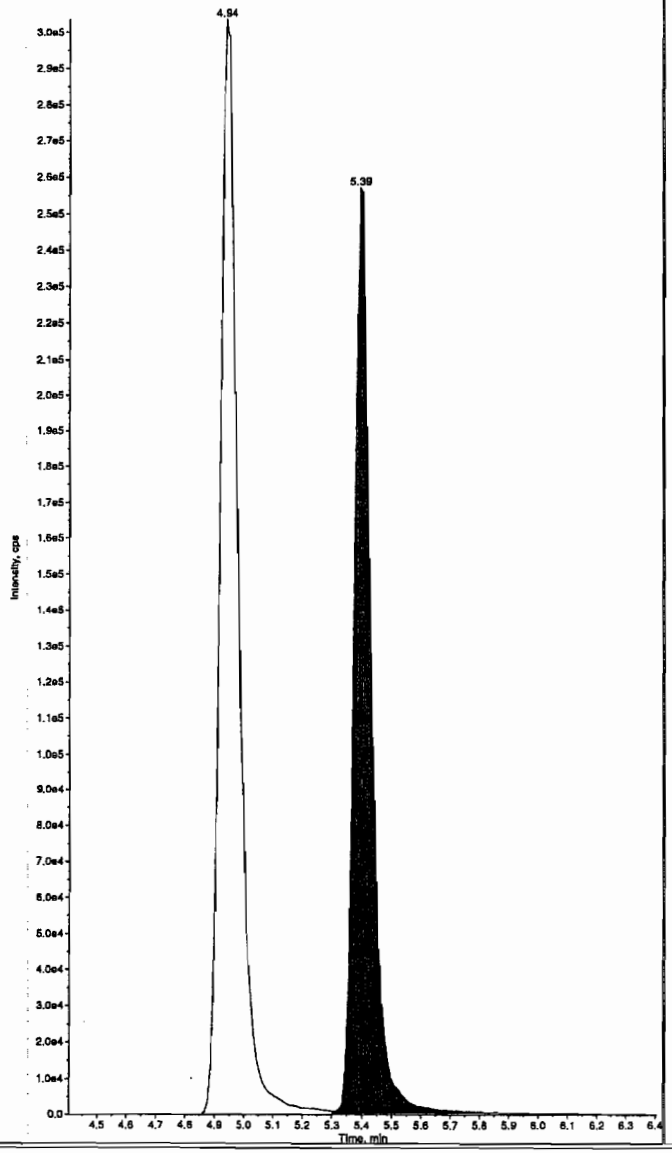
Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:40:18 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: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.39 min
Area: 1.10e+006 counts
Height: 256665.253 cpa
Start Time: 5.30 min
End Time: 5.84 min

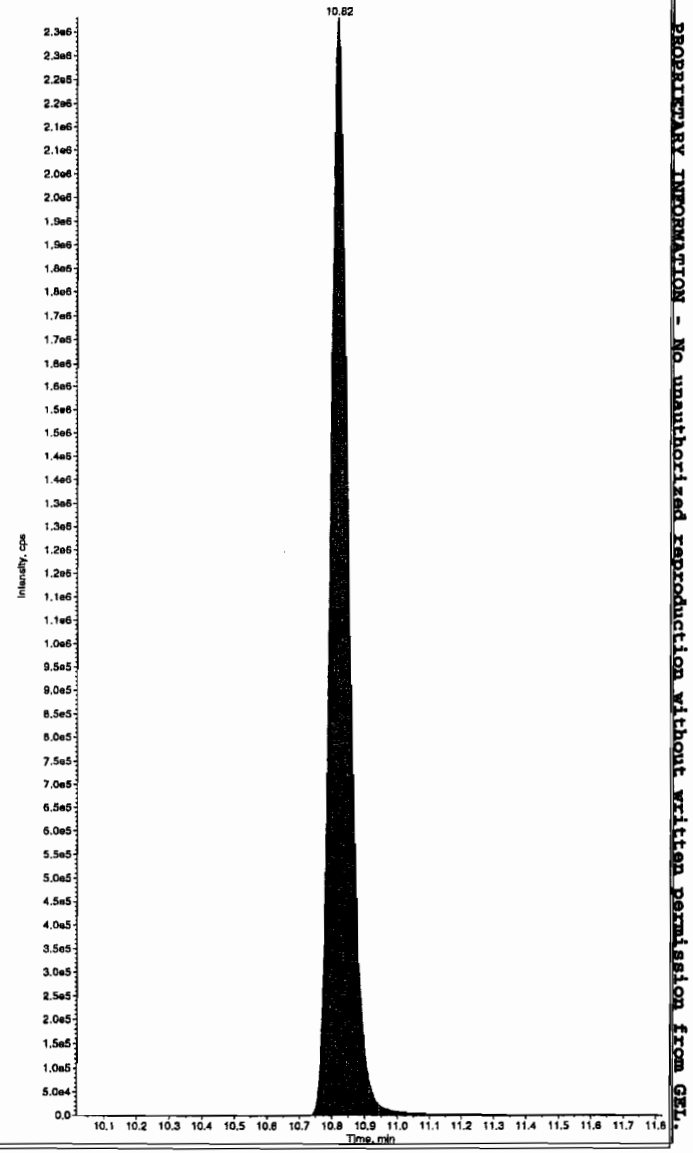


Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 4:40:18 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.53e+006 counts
Height: 2331095.459 cps
Start Time: 10.7 min
End Time: 11.2 min



*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): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090039.wiff

Analysis Date: 09-APR-10 17:11

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	100	100	
2,6-Diamino-4-nitrotoluene	100	93.3	93	
3,4-Dinitrotoluene	50	49.5	99	
3,5-Dinitroaniline	100	108	108	
TATB	100	105	105	
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

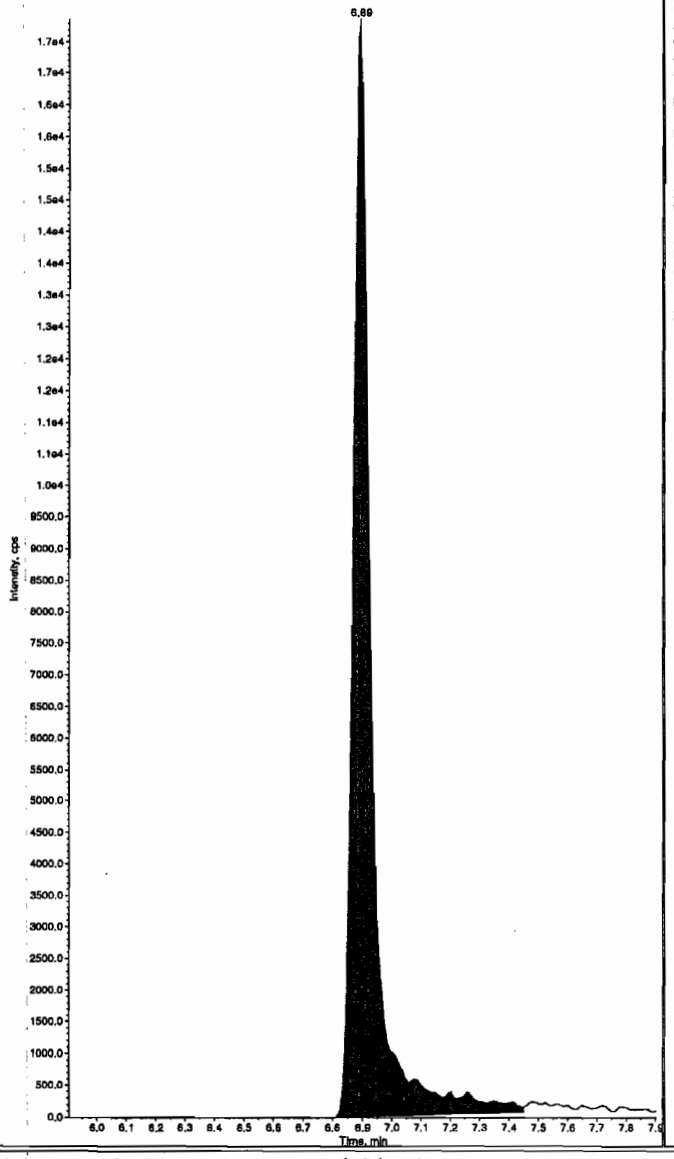
Lar 4/12/10

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090039.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: 105. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 5:11:42 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.89 min
Area: 8.09e+004 counts
Height: 17349.758 cps
Start Time: 6.79 min
End Time: 7.45 min

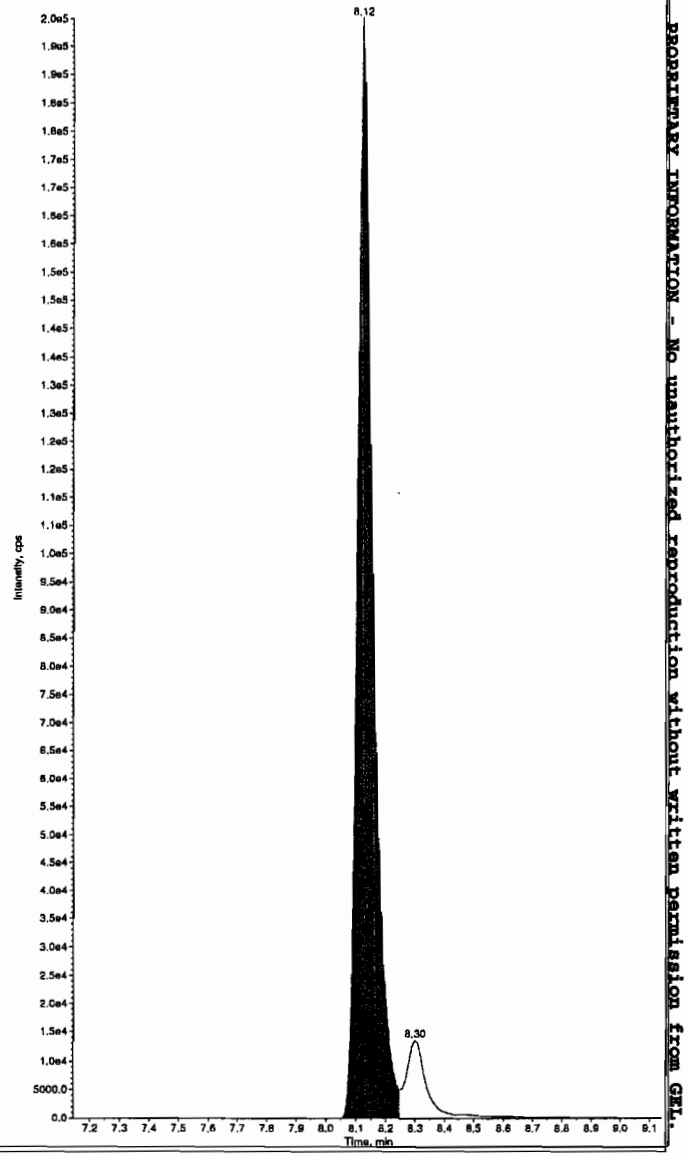


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 5:11:42 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 7.43e+005 counts
Height: 195114.578 cps
Start Time: 8.04 min
End Time: 8.25 min



Hnm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

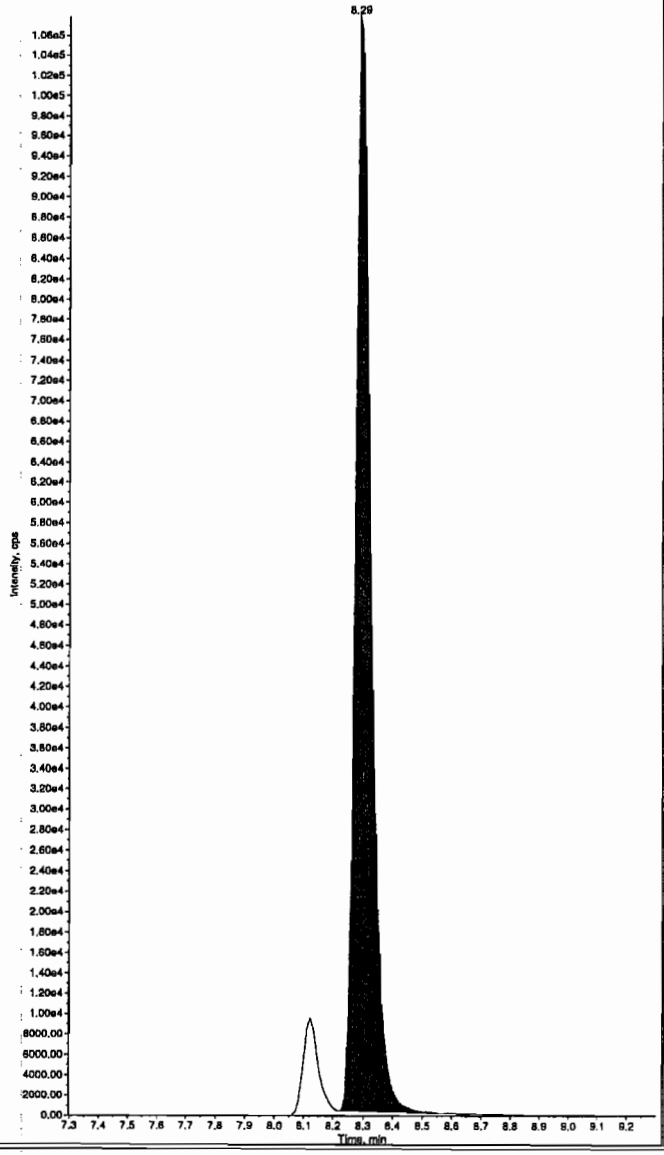
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090039.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: 49.5 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 5:11:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 4.19e+005 counts
Height: 107415.909 cps
Start Time: 8.22 min
End Time: 8.57 min

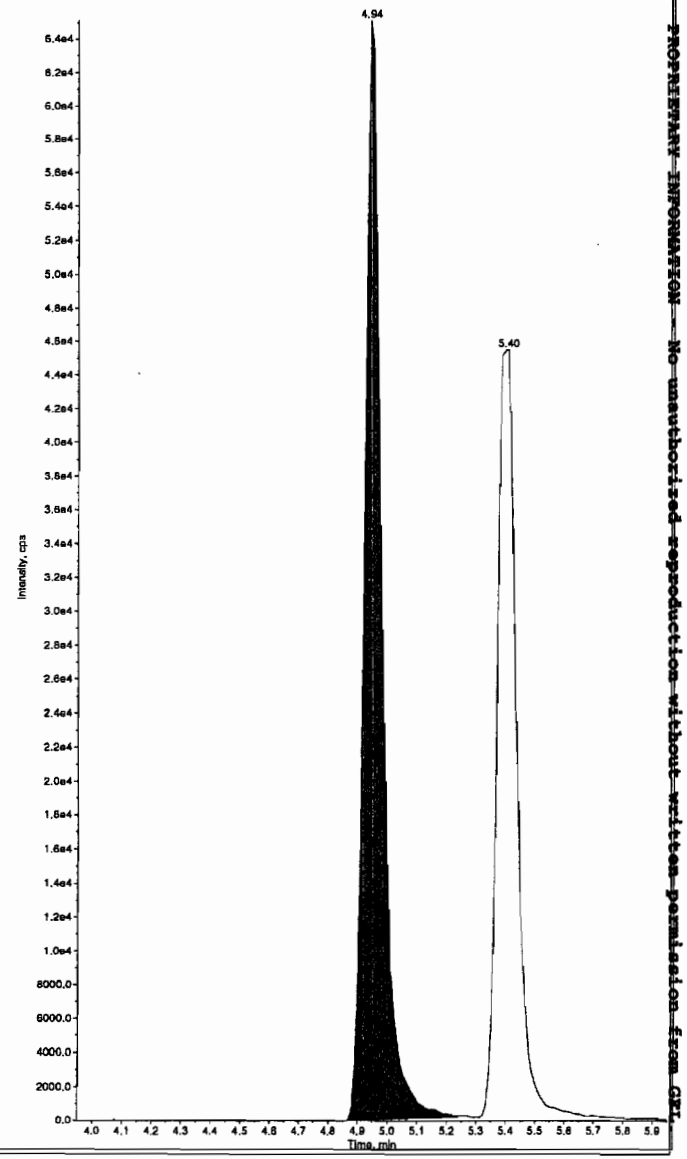


Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.3 ng/mL
Acq. Date: 4/9/2010
Acq. Time: 5:11:42 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 2.76e+005 counts
Height: 65123.627 cps
Start Time: 4.85 min
End Time: 5.24 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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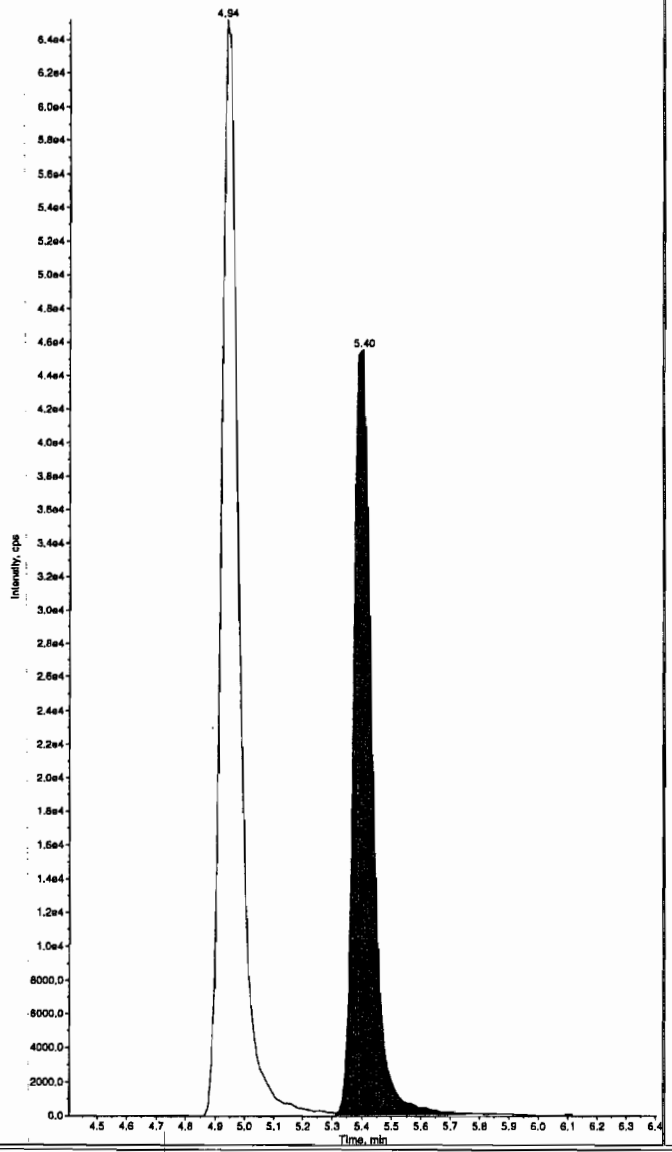
Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 5:11:42 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: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.40 min
Area: 2.12e+005 counts
Height: 45472.290 cps
Start Time: 5.31 min
End Time: 5.82 min

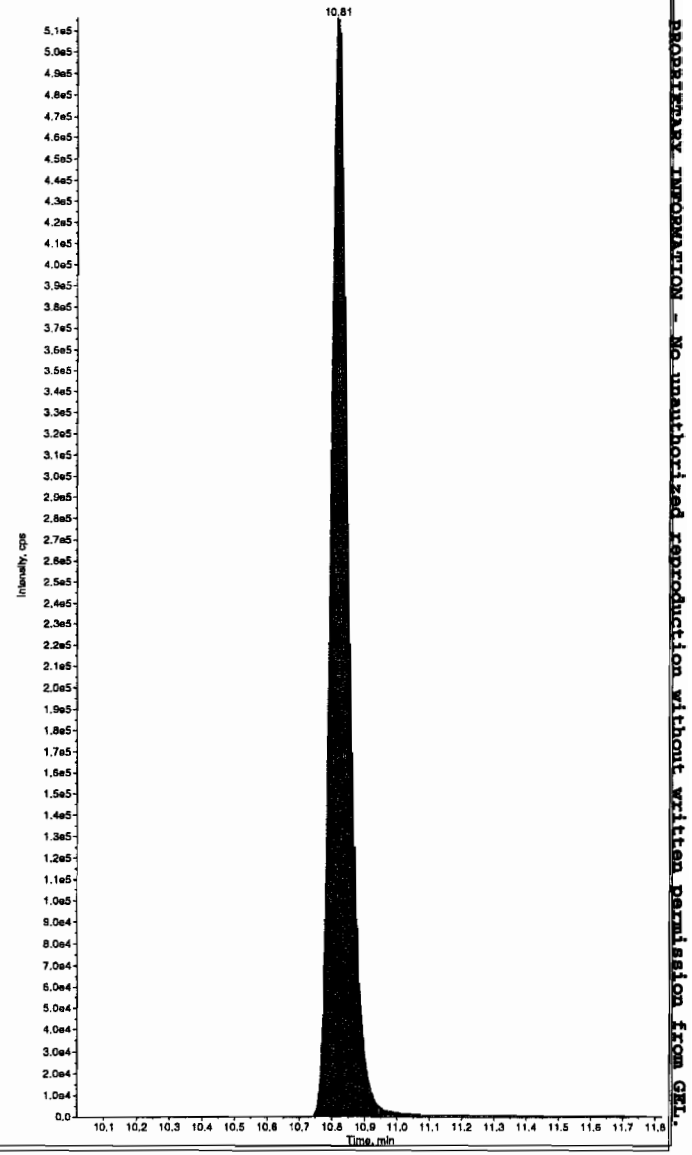


Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 5:11:42 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.08e+006 counts
Height: 515762.024 cps
Start Time: 10.7 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): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090050.wiff

Analysis Date: 09-APR-10 20:04

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	565	113	
2,6-Diamino-4-nitrotoluene	500	531	106	
3,4-Dinitrotoluene	250	242	97	
3,5-Dinitroaniline	500	520	104	
TATB	500	503	101	
tris(o-cresyl) phosphate	500	507	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

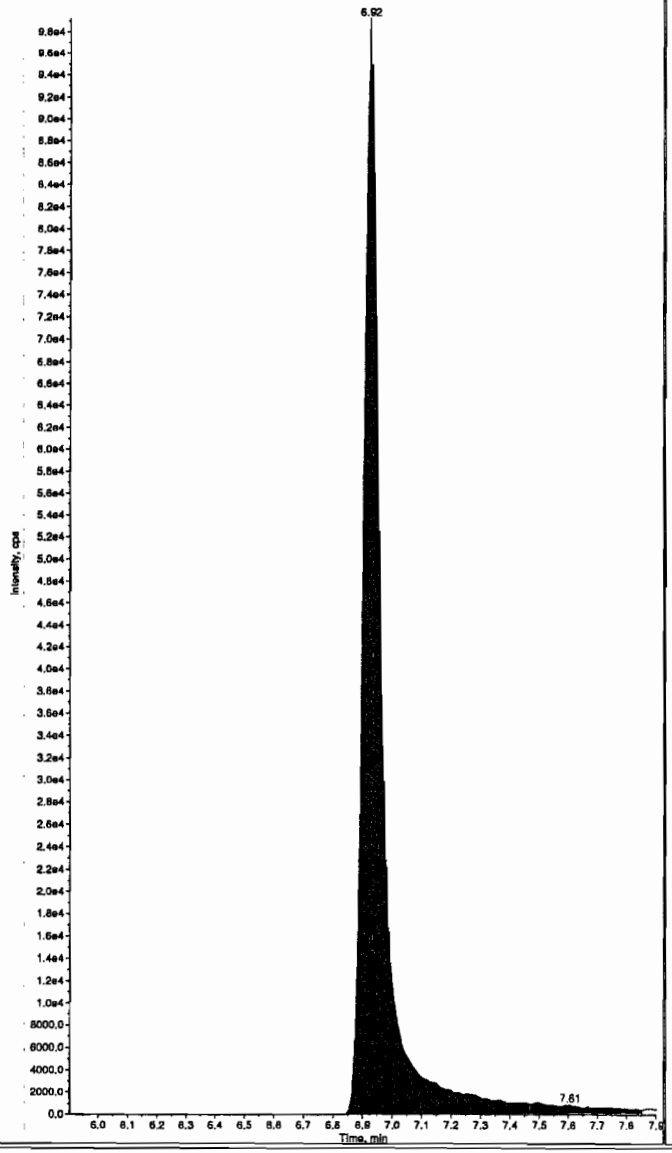
LCer 4/12/10

Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090050.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: 503. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 8:04:29 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 4.75e+005 counts
Height: 99179.520 cps
Start Time: 6.83 min
End Time: 7.85 min

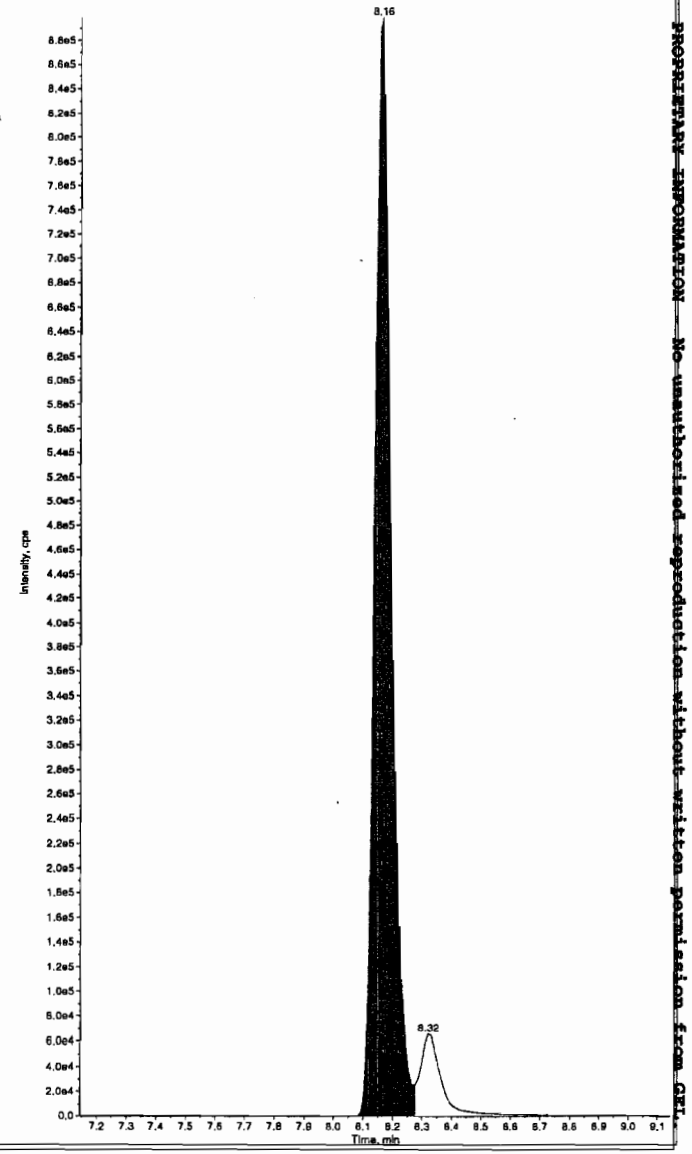


Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 520. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 8:04:29 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 3.67e+006 counts
Height: 898750.000 cps
Start Time: 8.05 min
End Time: 8.28 min



Hmm 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

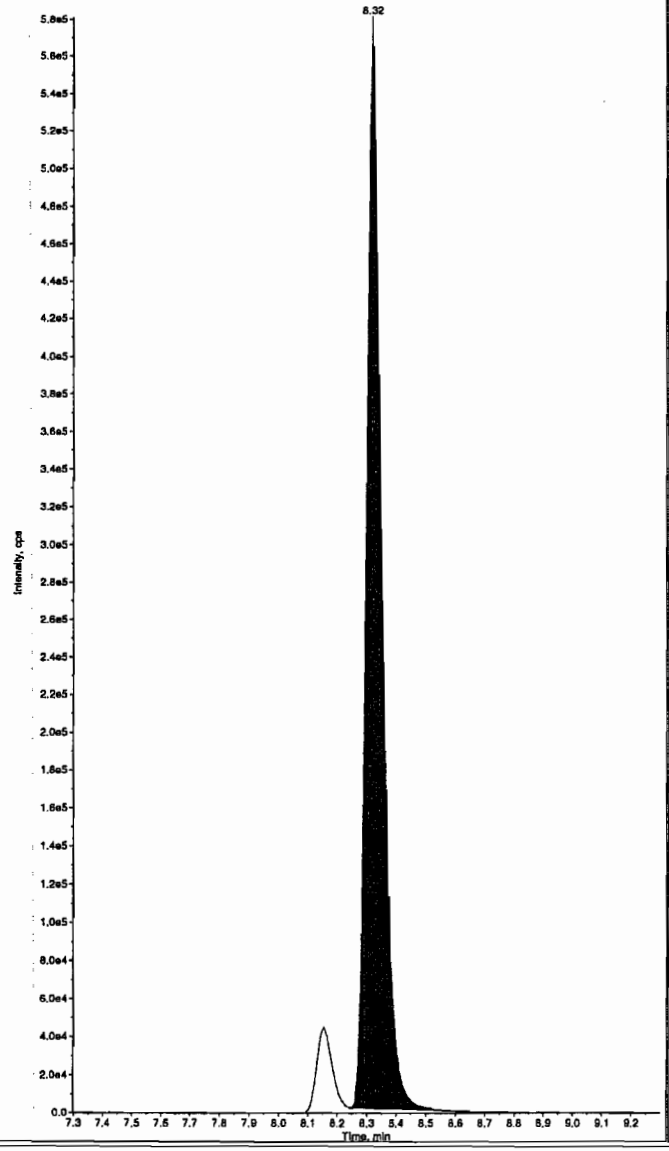
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090050.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: 242. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 8:04:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.32 min
Area: 2.17e+006 counts
Height: 578844.971 cps
Start Time: 8.25 min
End Time: 8.67 min

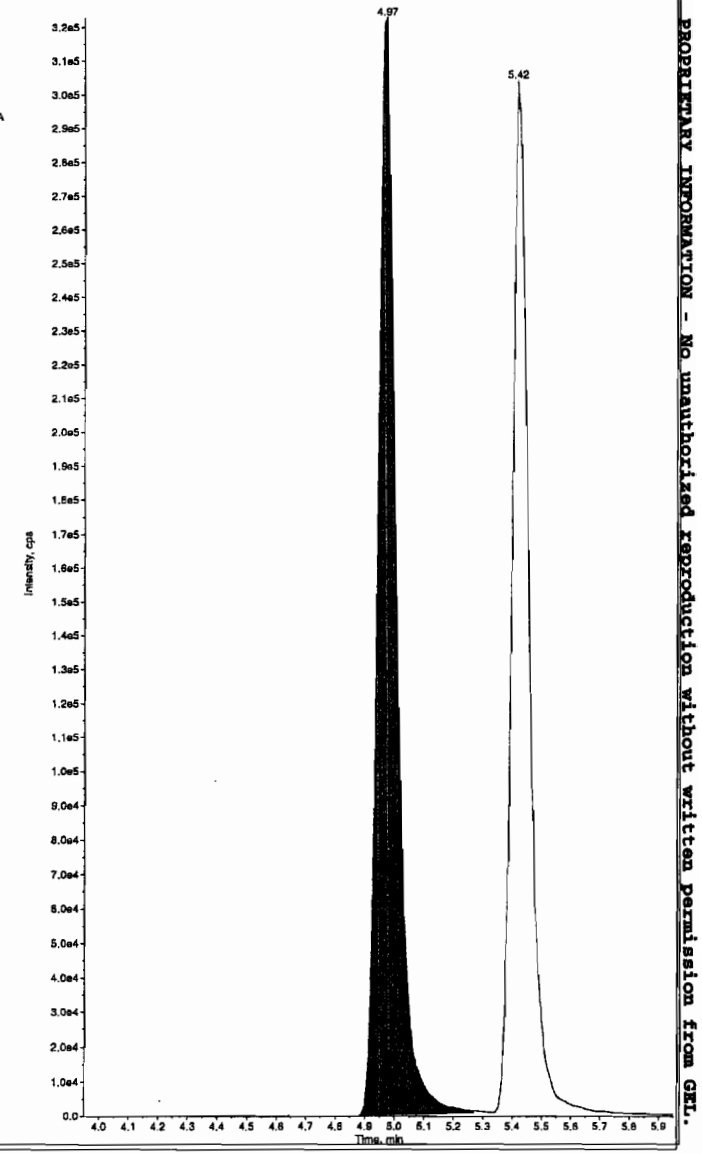


Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 531. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 8:04:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.97 min
Area: 1.46e+006 counts
Height: 322838.928 cps
Start Time: 4.87 min
End Time: 5.27 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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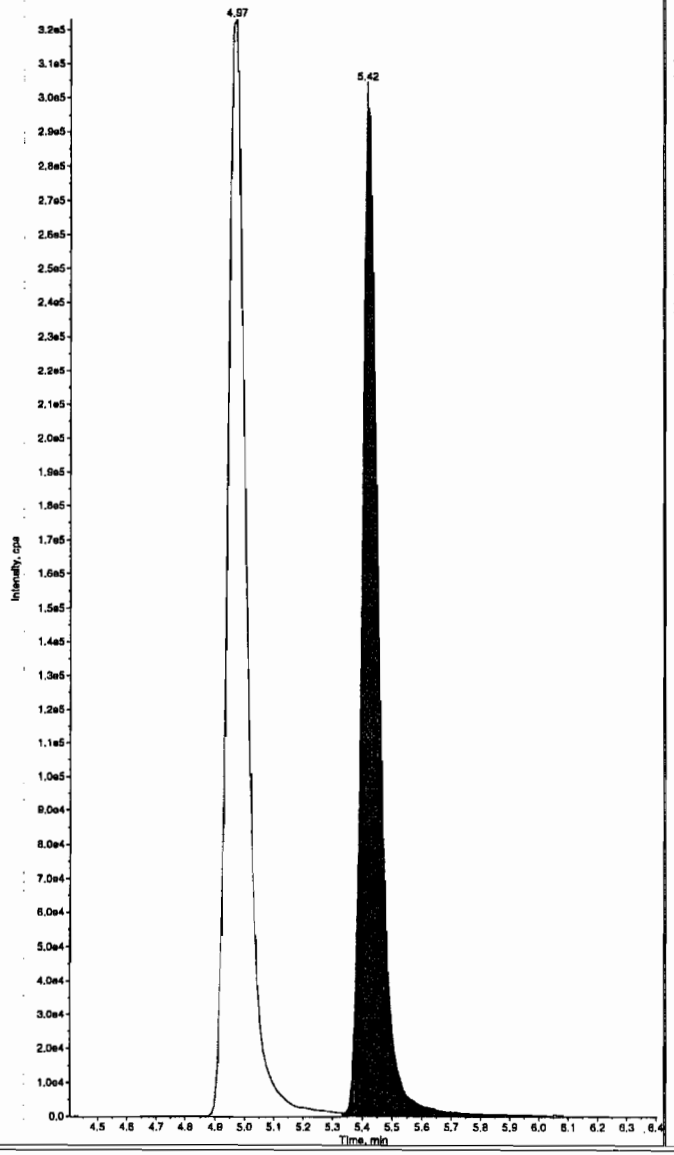
Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.     ng/mL
Calculated Conc:    565.     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:04:29 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        5.40    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.42    min
Area:         1.26e+006   counts
Height:        304161.041  cps
Start Time:         5.33    min
End Time:           6.04    min
```

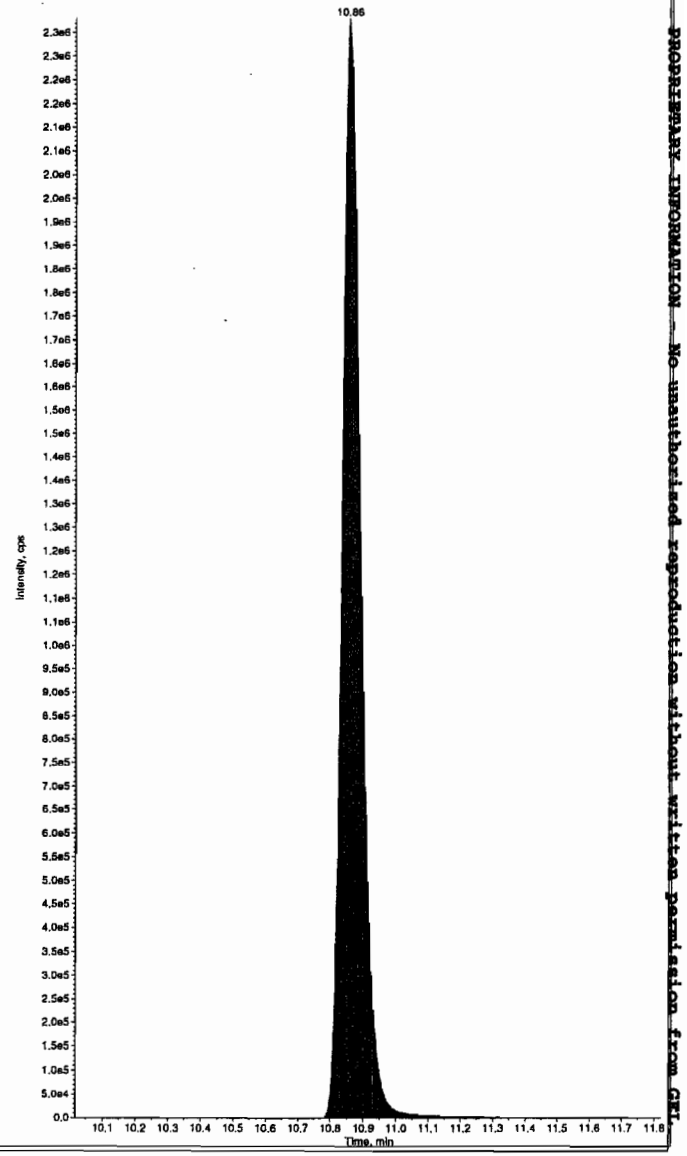


Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.     ng/mL
Calculated Conc:    507.     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:04:29 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:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9    min
Area:         9.68e+006   counts
Height:       2329265.625  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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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2198

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS04090052.wiff

Analysis Date: 09–APR–10 20:35

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	101	101	
2,6–Diamino–4–nitrotoluene	100	94.7	95	
3,4–Dinitrotoluene	50	50.3	101	
3,5–Dinitroaniline	100	105	105	
TATB	100	109	109	
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

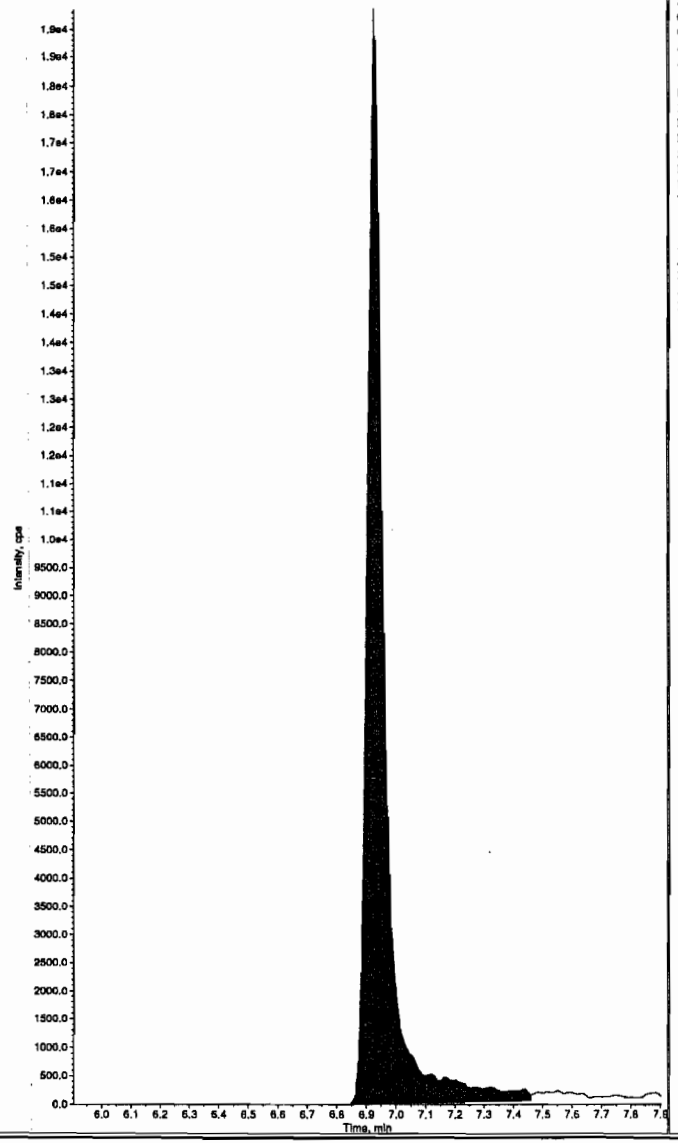
Before Clar 4/12/10

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090052.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:     109.     ng/mL
Acq. Date:        4/9/2010
Acq. Time:        8:35:54 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:         6.90    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      6.92    min
Area:          8.47e+004    counts
Height:          19329.411  cps
Start Time:          6.82    min
End Time:            7.46    min
```

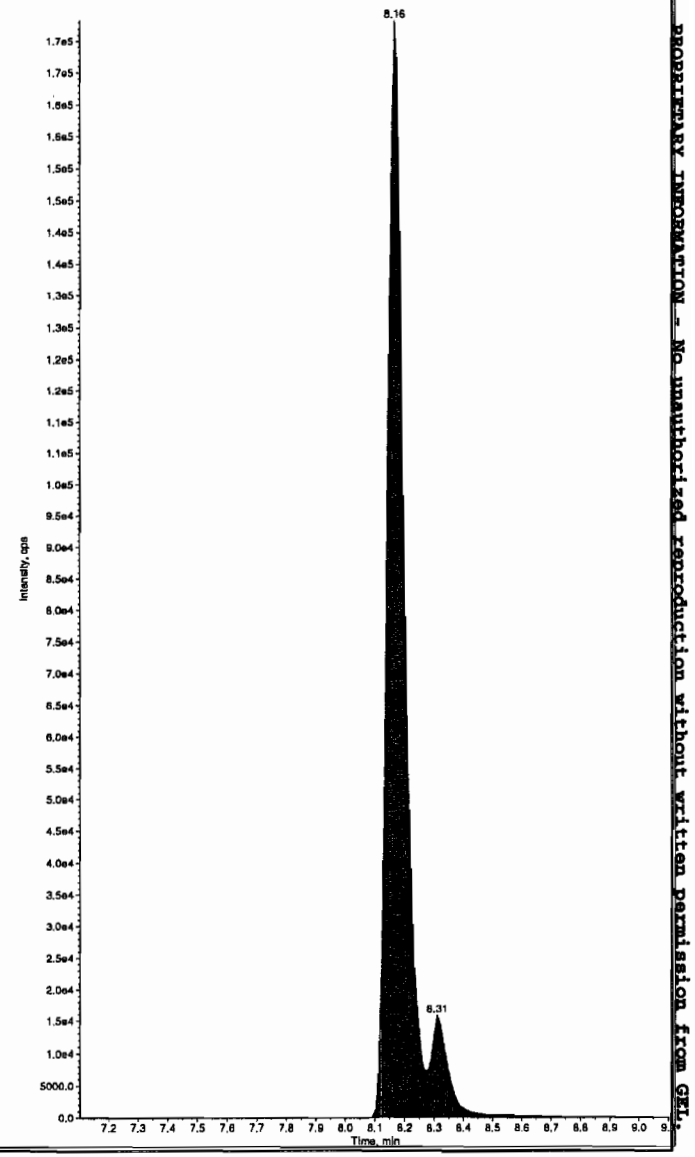


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     115.     ng/mL
Acq. Date:        4/9/2010
Acq. Time:        8:35:54 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:         8.10    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.16    min
Area:          7.91e+005    counts
Height:         173280.121  cps
Start Time:          8.05    min
End Time:            8.88    min
```



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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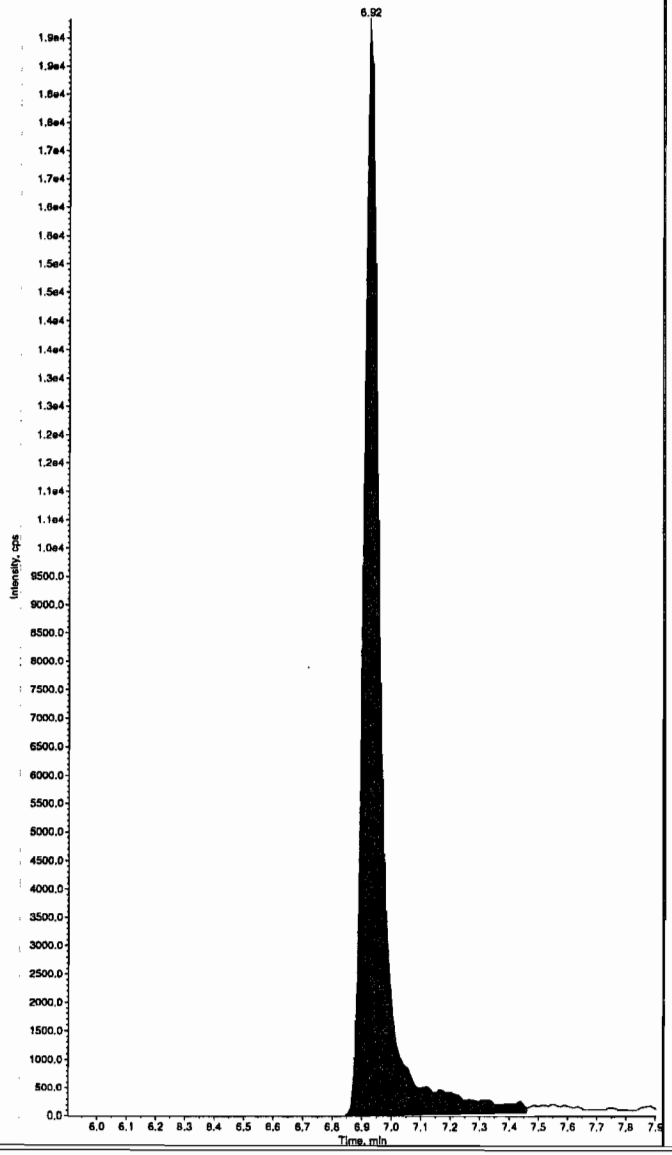
After Run 4/12/10

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090052.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:    109.    ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:35:54 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:        6.90   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     6.92   min
Area:         8.47e+004   counts
Height:         19329.411  cps
Start Time:         6.82   min
End Time:           7.46   min
```

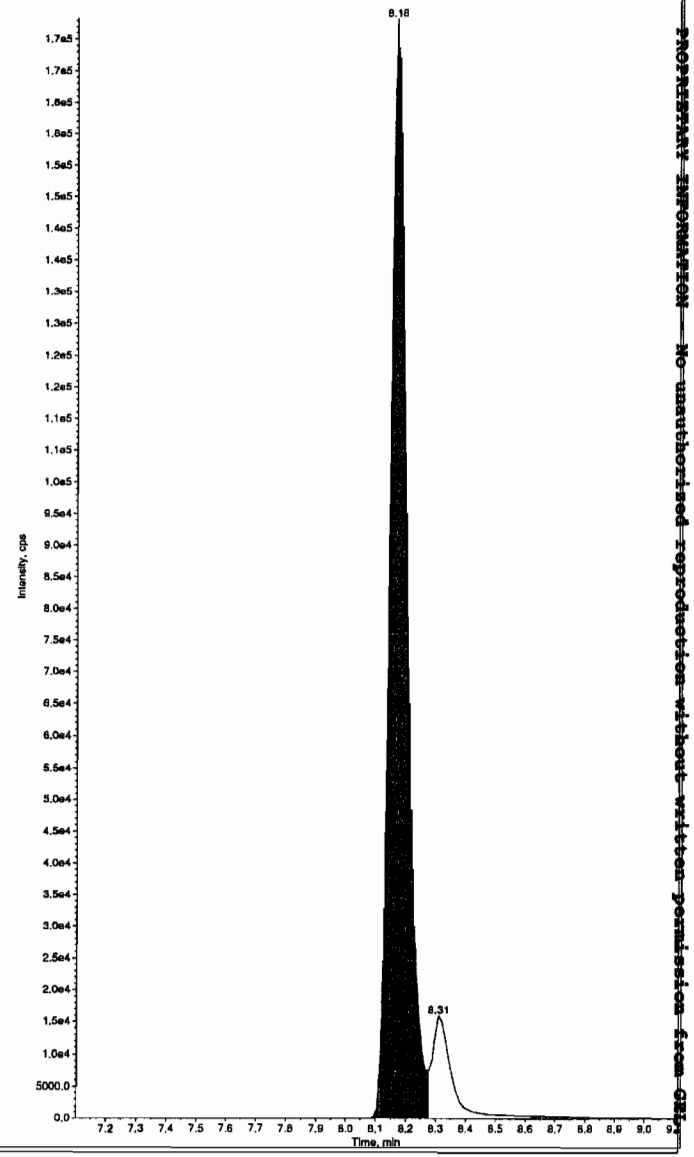


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090052.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.    ng/mL
Calculated Conc:    105.    ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:35:54 PM

Modified:           Yes
RT Window:         15.0    sec
Expected RT:        8.10   min
Use Relative RT:    No

Int. Type:        Manual
Retention Time:     8.17   min
Area:         7.17e+005   counts
Height:         173797.588  cps
Start Time:         8.07   min
End Time:           8.28   min
```



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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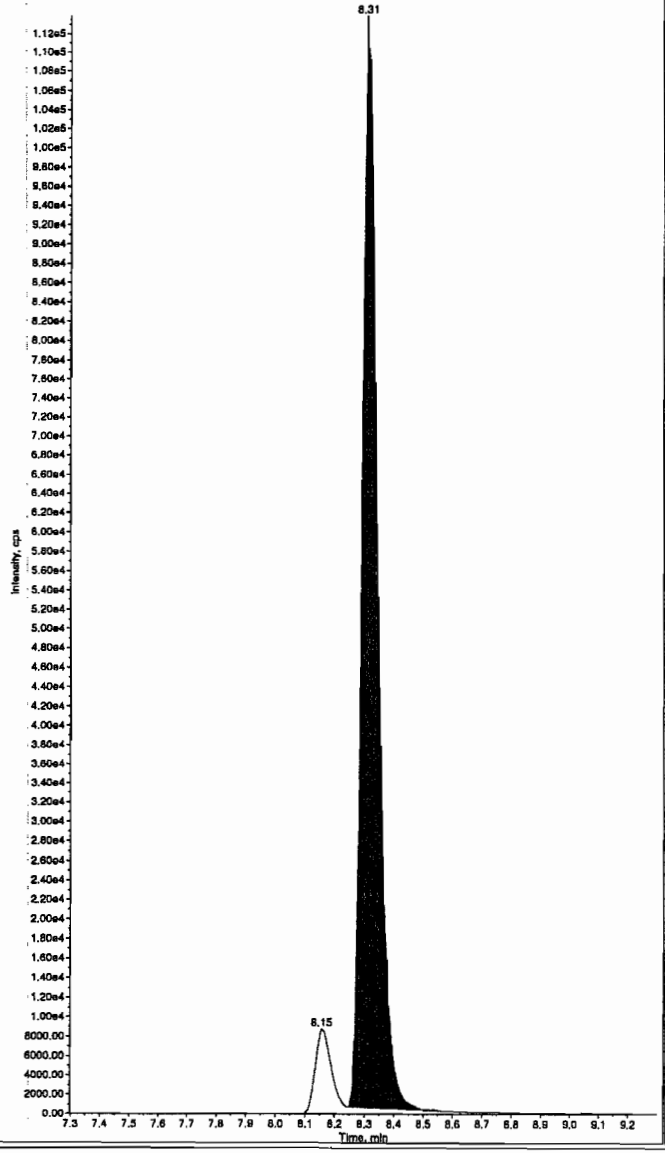
Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      50.0     ng/mL
Calculated Conc:    50.3     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:35:54 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        8.30    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.31    min
Area:        4.27e+005    counts
Height:        113157.799  cps
Start Time:         8.25    min
End Time:           8.56    min
```

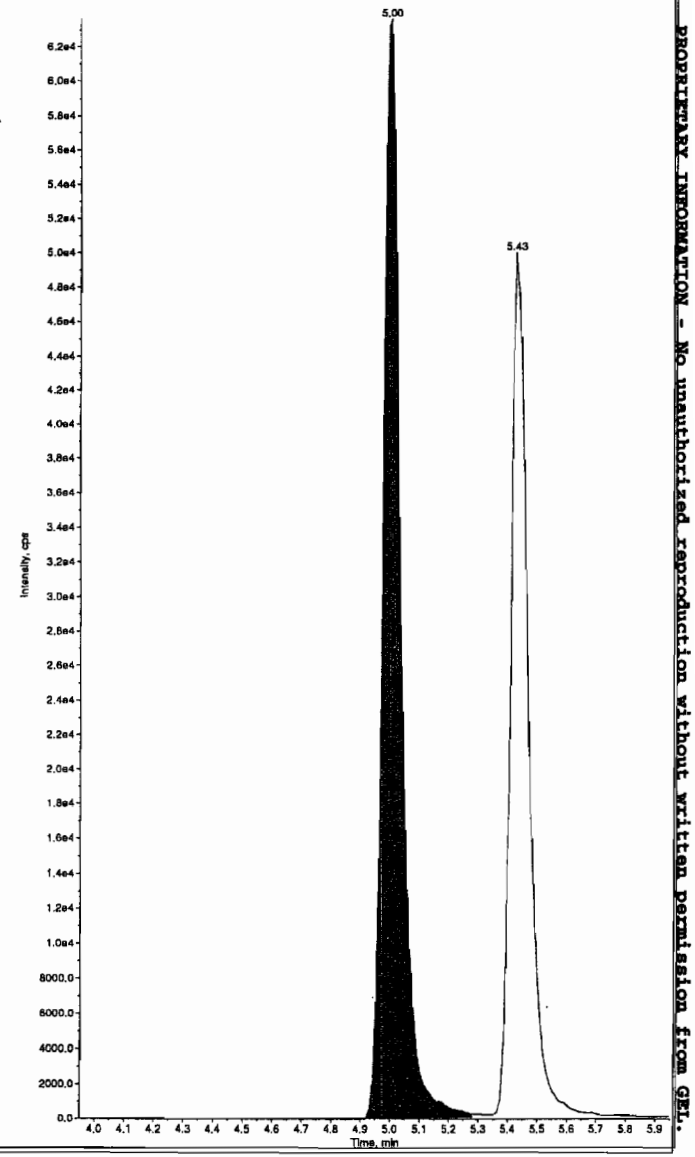


Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:     100.     ng/mL
Calculated Conc:    94.7     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:35:54 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:        4.95    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.00    min
Area:        2.80e+005    counts
Height:        63629.604   cps
Start Time:         4.90    min
End Time:           5.28    min
```



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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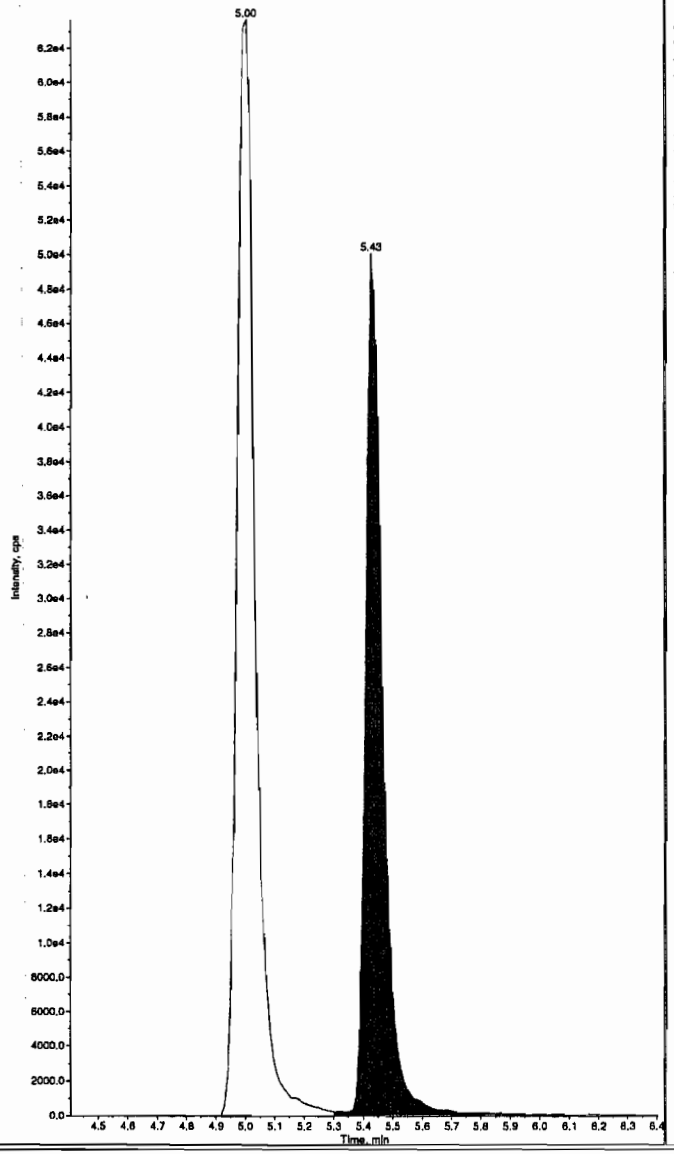
Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.     ng/mL
Calculated Conc:    101.     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:35:54 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:        5.40   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.43   min
Area:         2.14e+005   counts
Height:        49977.051  cps
Start Time:         5.30   min
End Time:           5.98   min
```

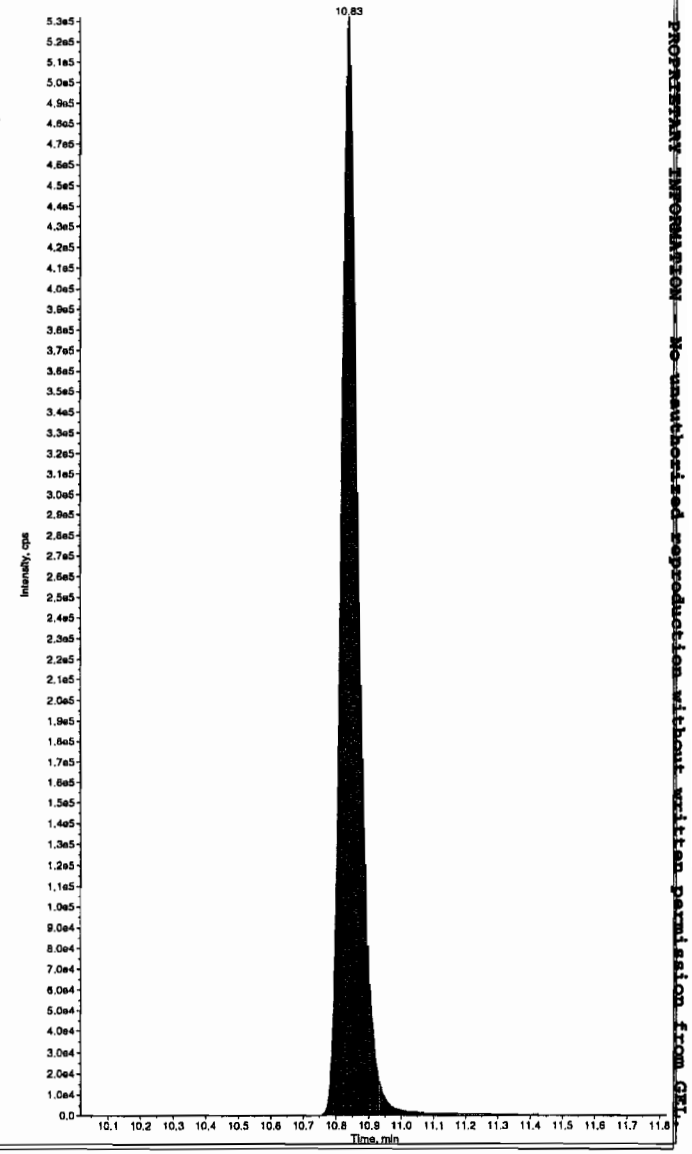


Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.     ng/mL
Calculated Conc:    102.     ng/mL
Acq. Date:       4/9/2010
Acq. Time:       8:35:54 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:        10.8   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8   min
Area:         2.09e+006   counts
Height:       531803.162  cps
Start Time:         10.7   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): 10-2198

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090063.wiff

Analysis Date: 09-APR-10 23:28

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	458	92	
2,6-Diamino-4-nitrotoluene	500	485	97	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	437	87	
TATB	500	458	92	
tris(o-cresyl) phosphate	500	502	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

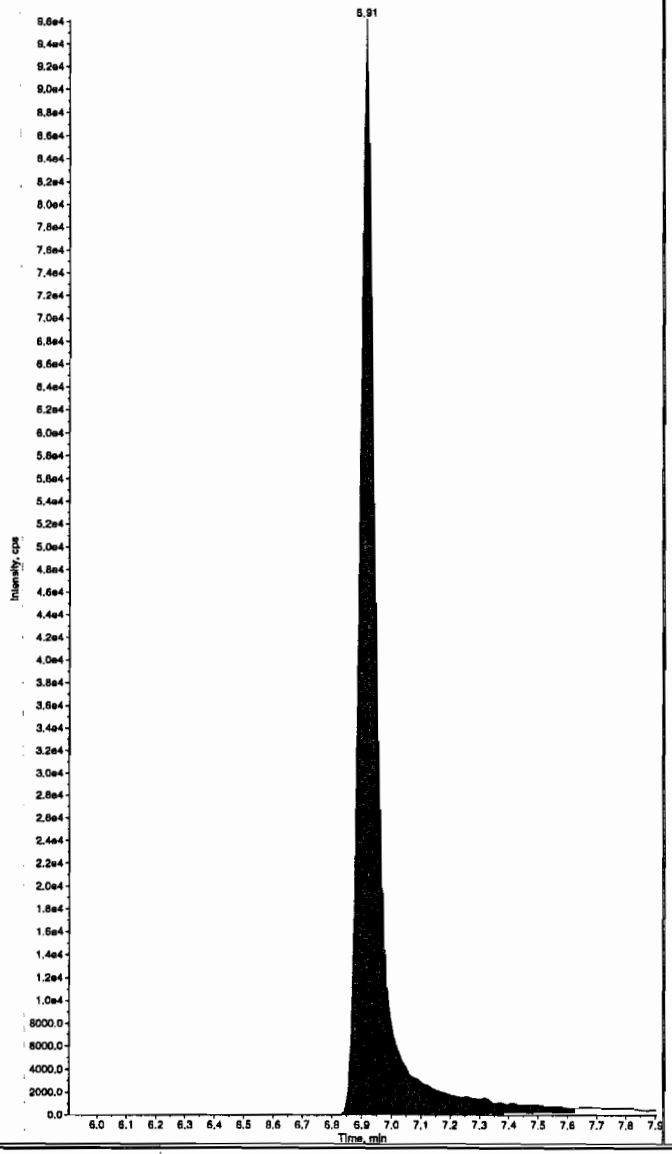
Before Lan 4/12/10

Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090063.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: 458. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.91 min
Area: 4.31e+005 counts
Height: 96122.597 cps
Start Time: 6.81 min
End Time: 7.63 min

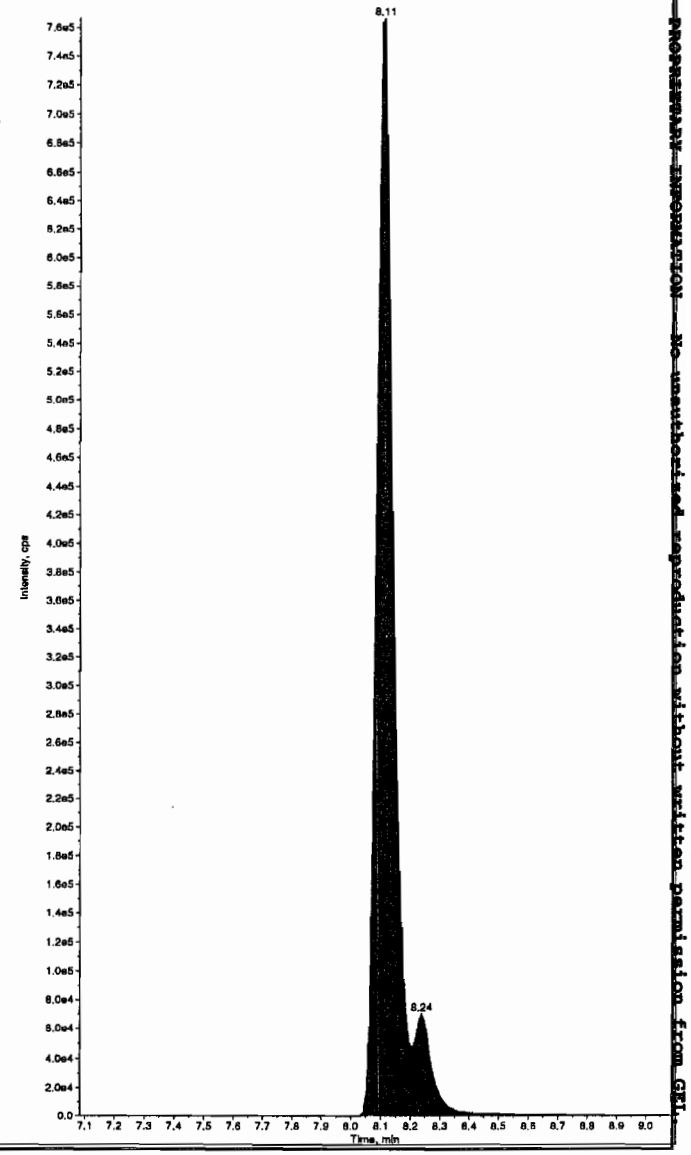


Sample Name: "WXX100409-26CCV" Sample ID: "|1|LER" File: "EXS04090063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 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: 8.08 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.11 min
Area: 3.47e+006 counts
Height: 766574.585 cps
Start Time: 8.01 min
End Time: 8.81 min



HNM 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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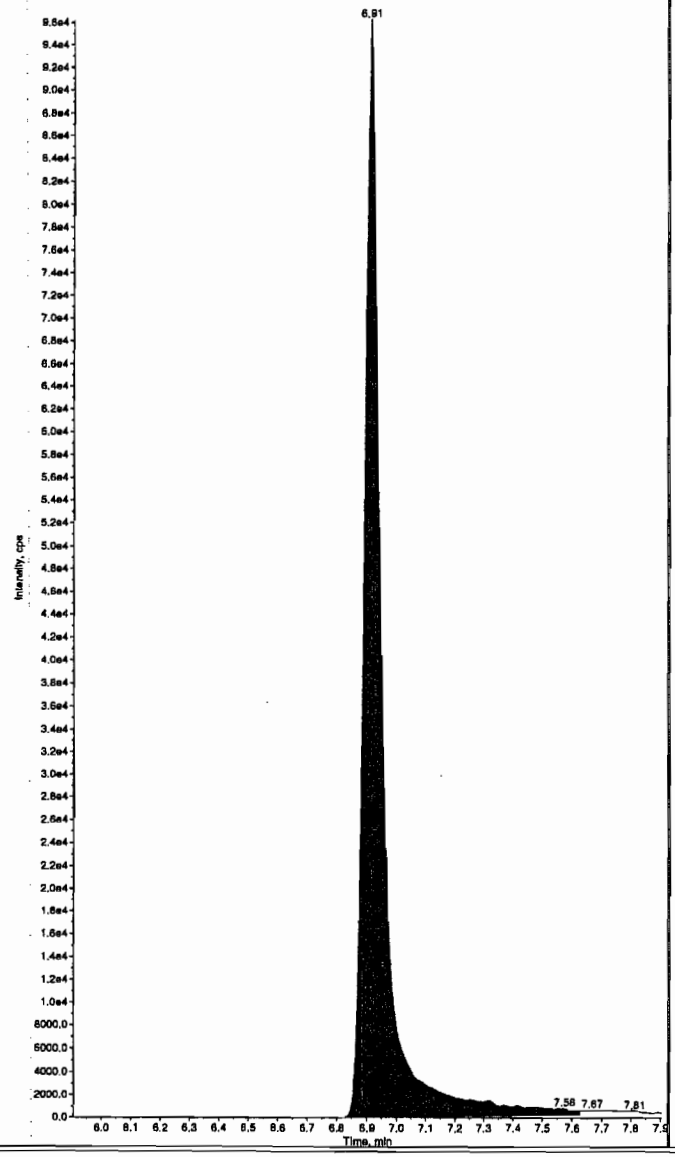
after Lan 4/12/10

Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090063.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: 458. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.91 min
Area: 4.31e+005 counts
Height: 96122.597 cps
Start Time: 6.81 min
End Time: 7.63 min

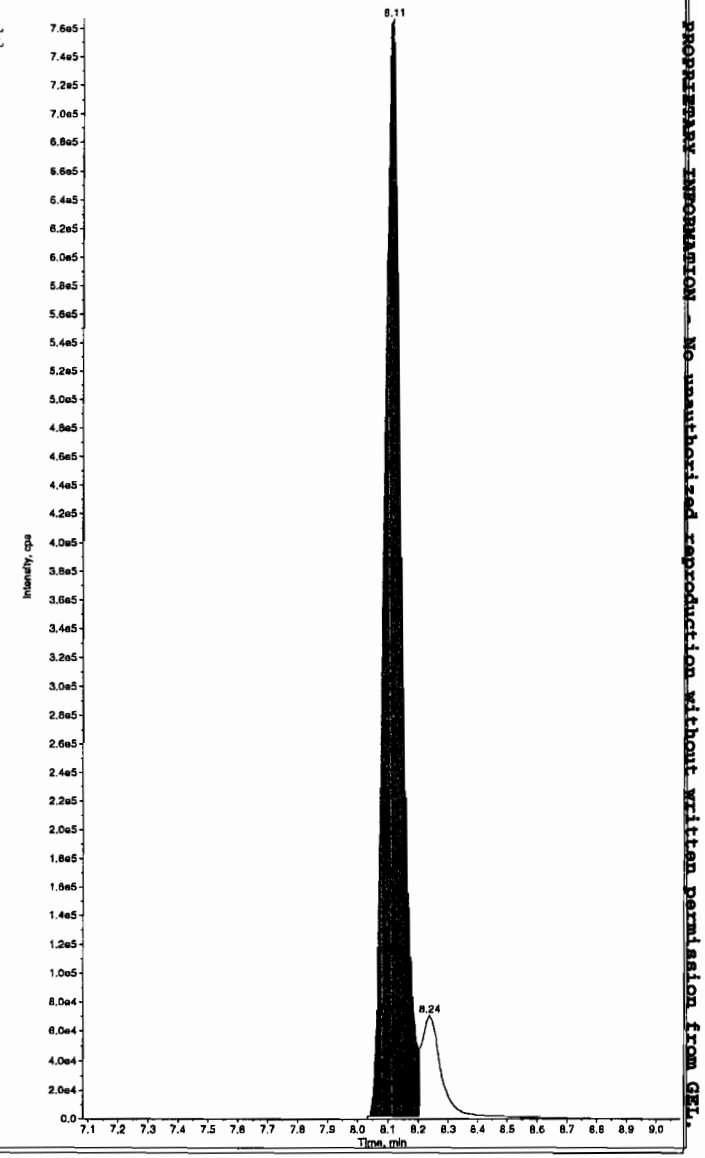


Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 437. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.08 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.11 min
Area: 3.12e+006 counts
Height: 777261.793 cps
Start Time: 8.03 min
End Time: 8.21 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

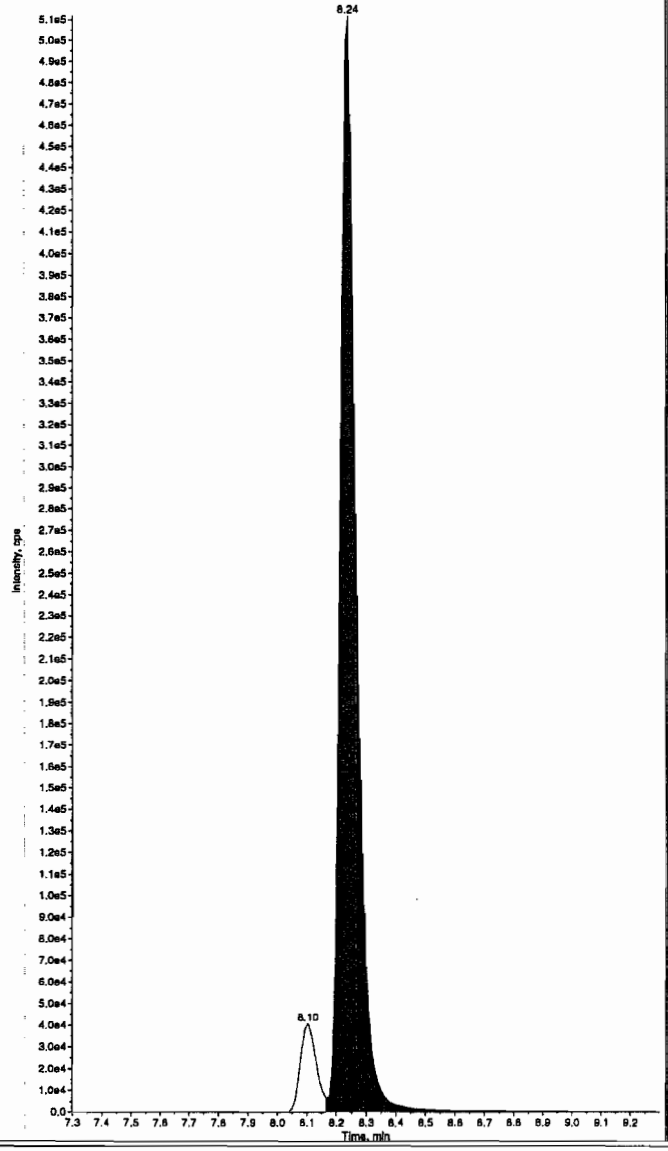
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090063.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: 227. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 2.03e+006 counts
Height: 511503.784 cps
Start Time: 8.16 min
End Time: 8.76 min

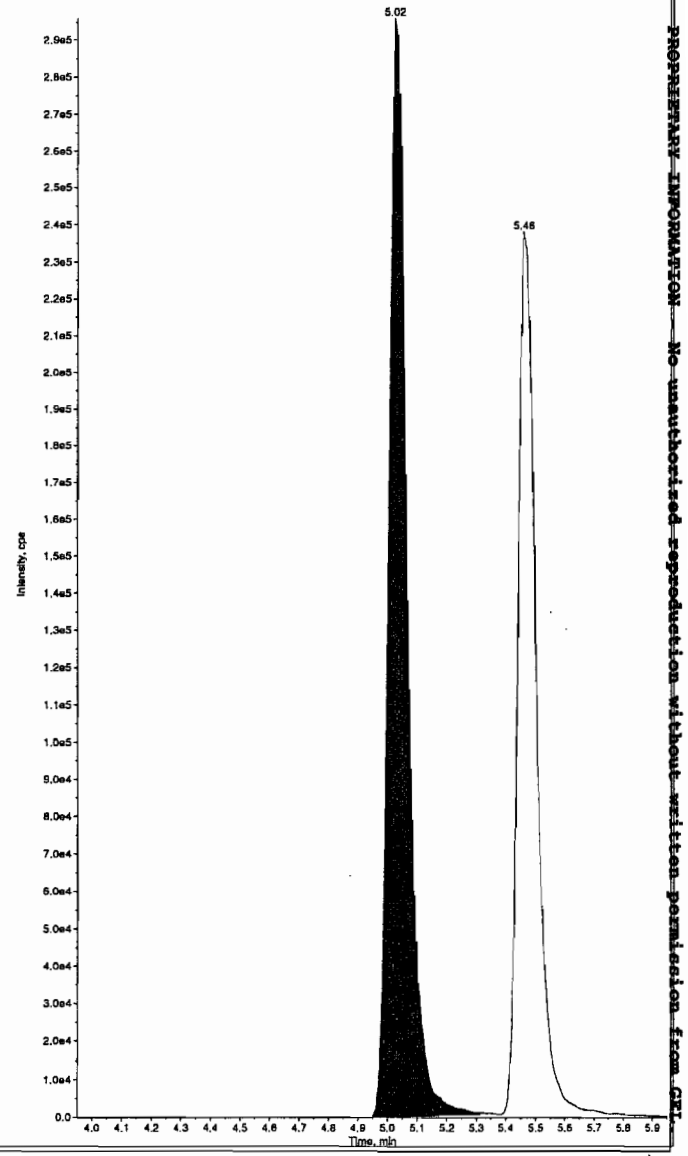


Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090063.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.34e+006 counts
Height: 295689.270 cps
Start Time: 4.93 min
End Time: 5.31 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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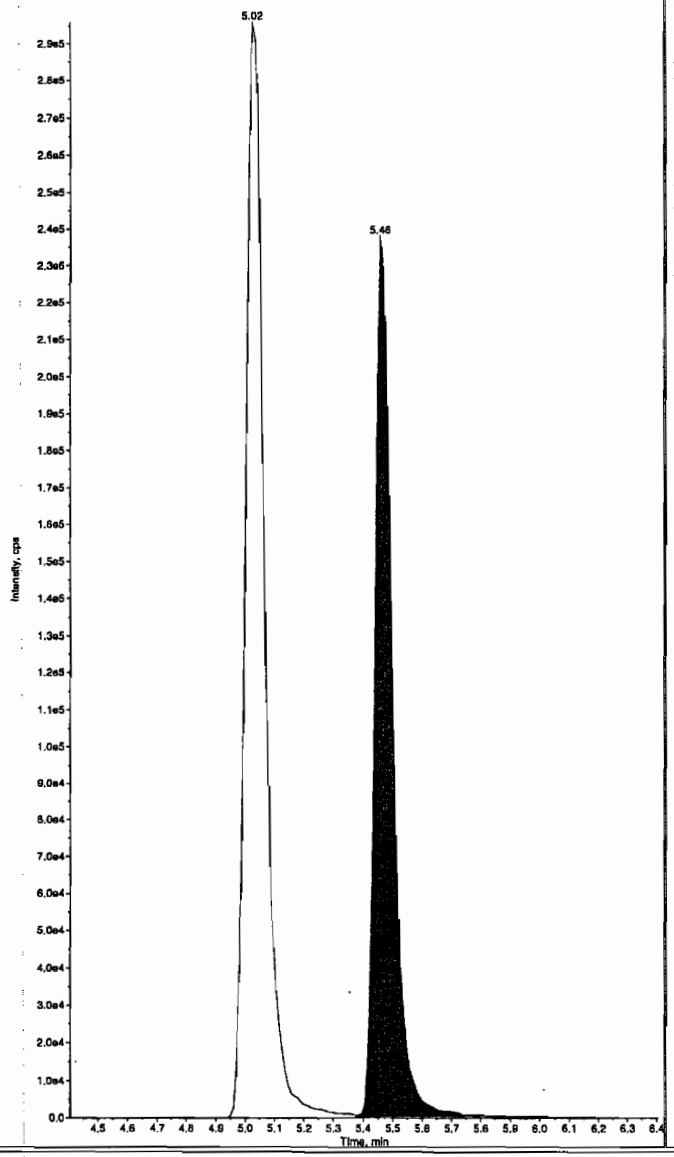
Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090063.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 458. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 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: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 1.03e+006 counts
Height: 237725.037 cps
Start Time: 5.37 min
End Time: 5.89 min

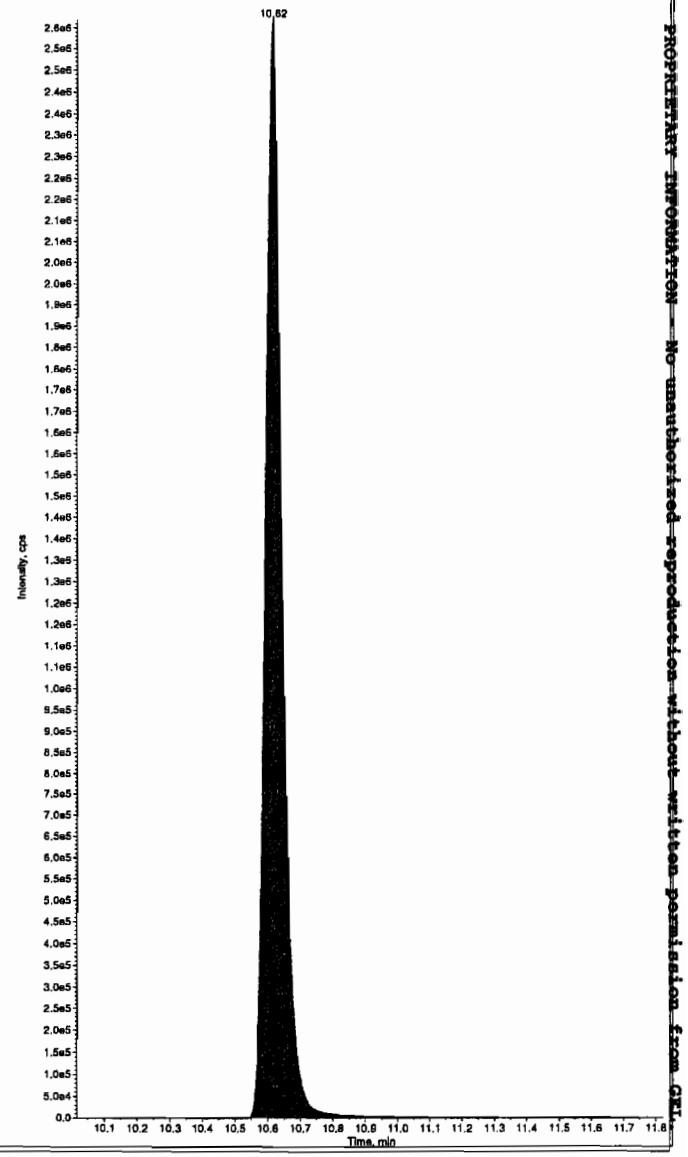


Sample Name: "WXX100409-26CCV" Sample ID: "[1]LER" File: "EXS04090063.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 11:28:37 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 9.58e+006 counts
Height: 2568705.566 cps
Start Time: 10.5 min
End Time: 11.0 min



*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): 10–2198

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090065.wiff

Analysis Date: 10–APR–10 00:00

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	96.4	96	
2,6–Diamino–4–nitrotoluene	100	85.8	86	
3,4–Dinitrotoluene	50	46.7	93	
3,5–Dinitroaniline	100	92.4	92	
TATB	100	98	98	
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

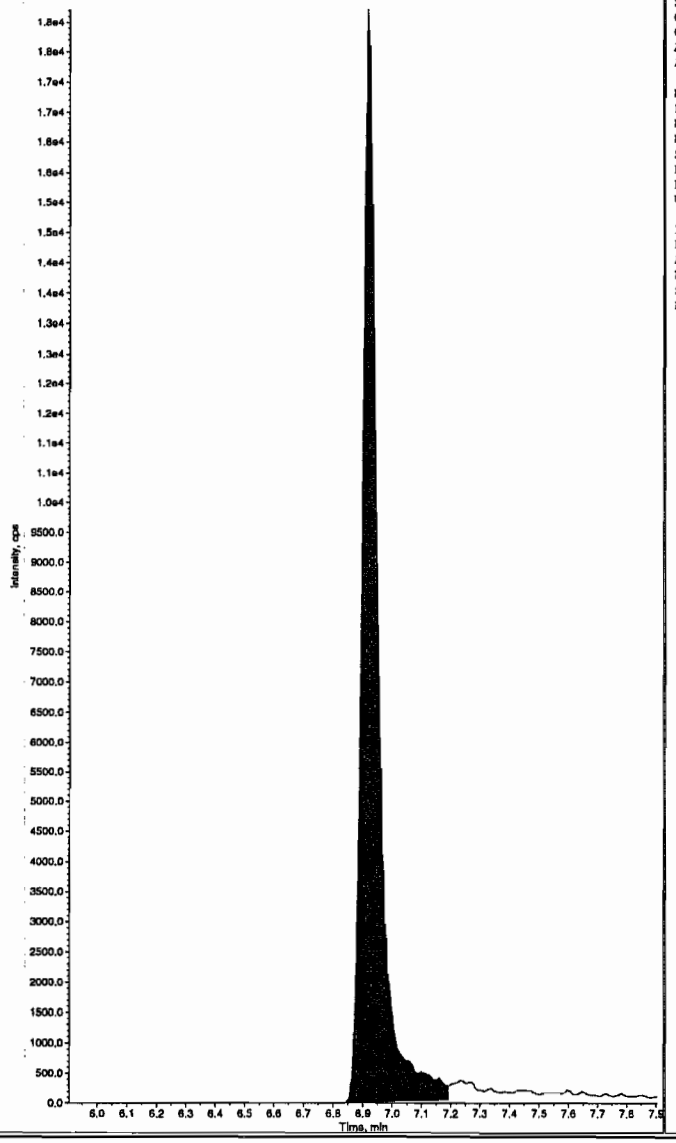
Before Dan 4/12/10

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090065.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: 98.0 ng/mL
Acq. Date: 4/10/2010
Acq. Time: 12:00:00 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.91 min
Area: 7.38e+004 counts
Height: 18189.495 cps
Start Time: 6.83 min
End Time: 7.19 min

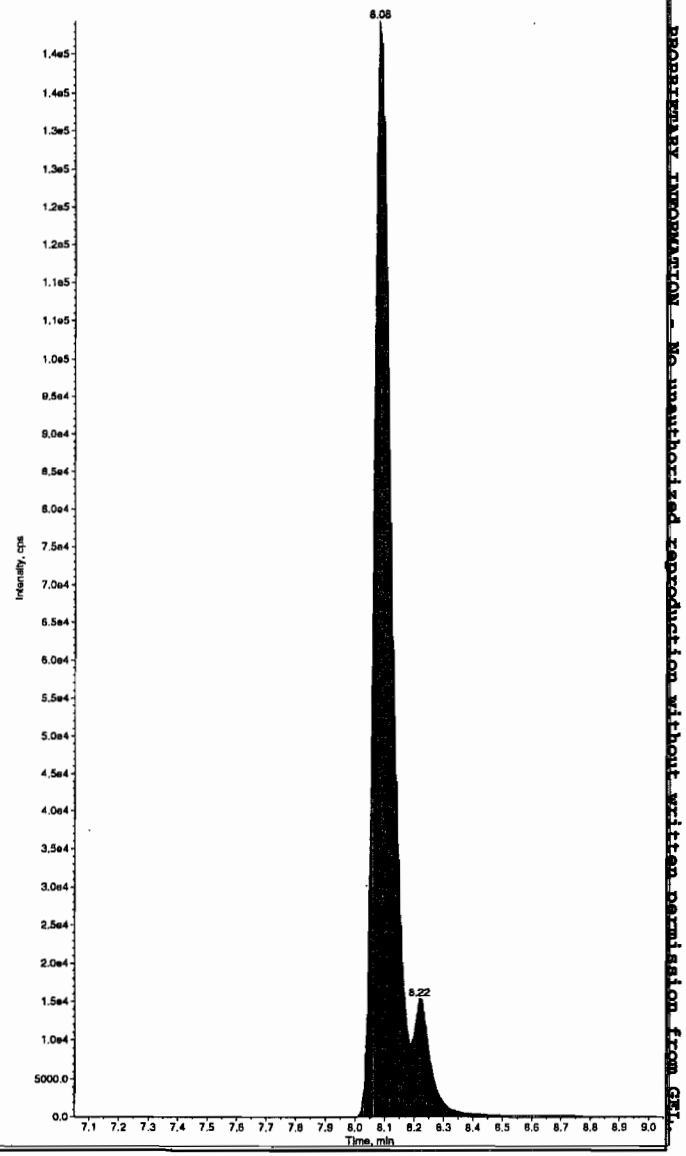


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090065.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 12:00:00 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: 8.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.08 min
Area: 6.94e+005 counts
Height: 144379.059 cps
Start Time: 7.99 min
End Time: 8.53 min



HMM 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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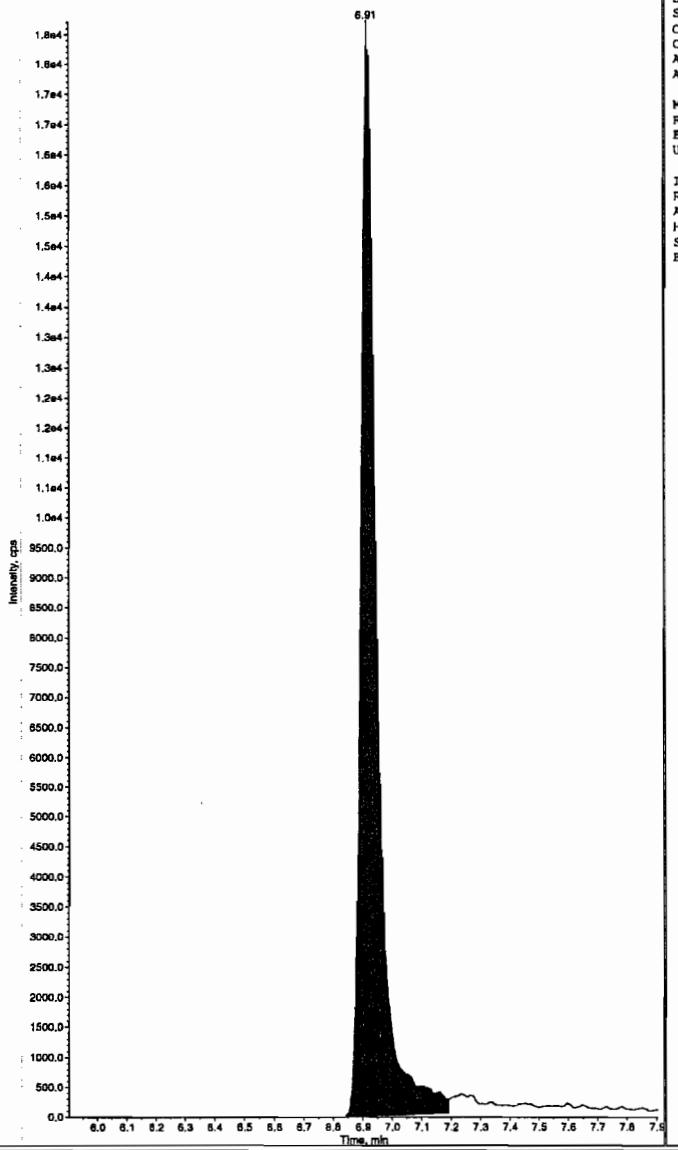
after Dan 4/12/10

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090065.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: 98.0 ng/mL
Acq. Date: 4/10/2010
Acq. Time: 12:00:00 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.91 min
Area: 7.38e+004 counts
Height: 18189.495 cps
Start Time: 6.83 min
End Time: 7.19 min

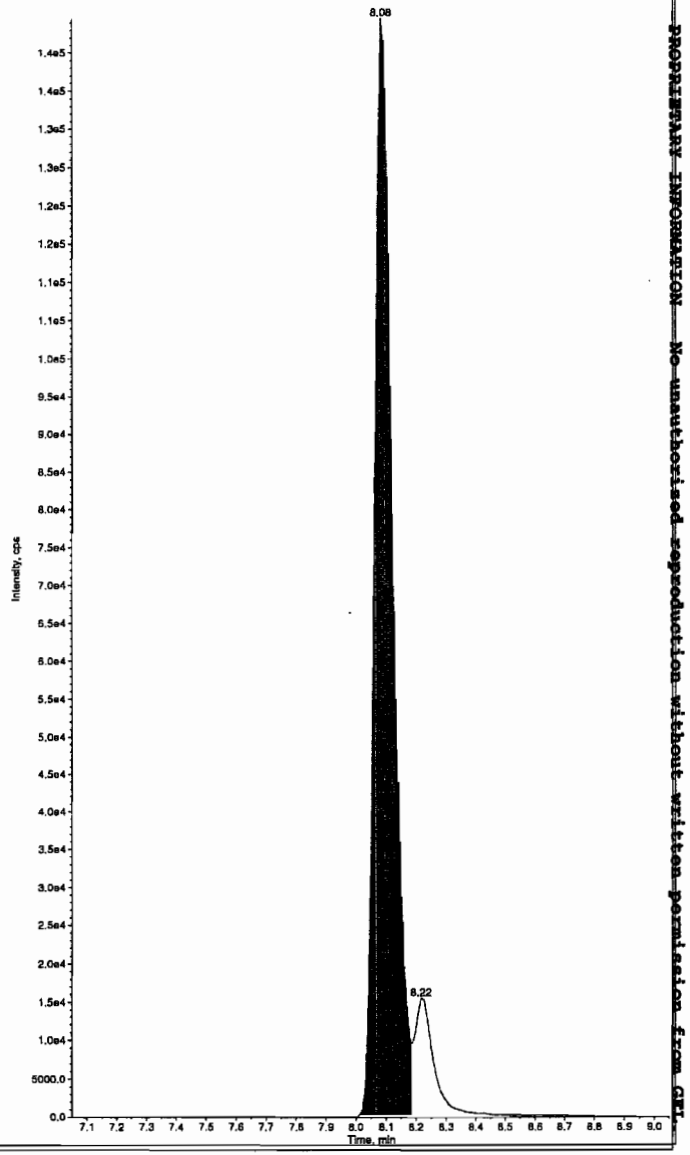


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090065.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.4 ng/mL
Acq. Date: 4/10/2010
Acq. Time: 12:00:00 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.05 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.09 min
Area: 6.21e+005 counts
Height: 145332.096 cps
Start Time: 8.01 min
End Time: 8.19 min



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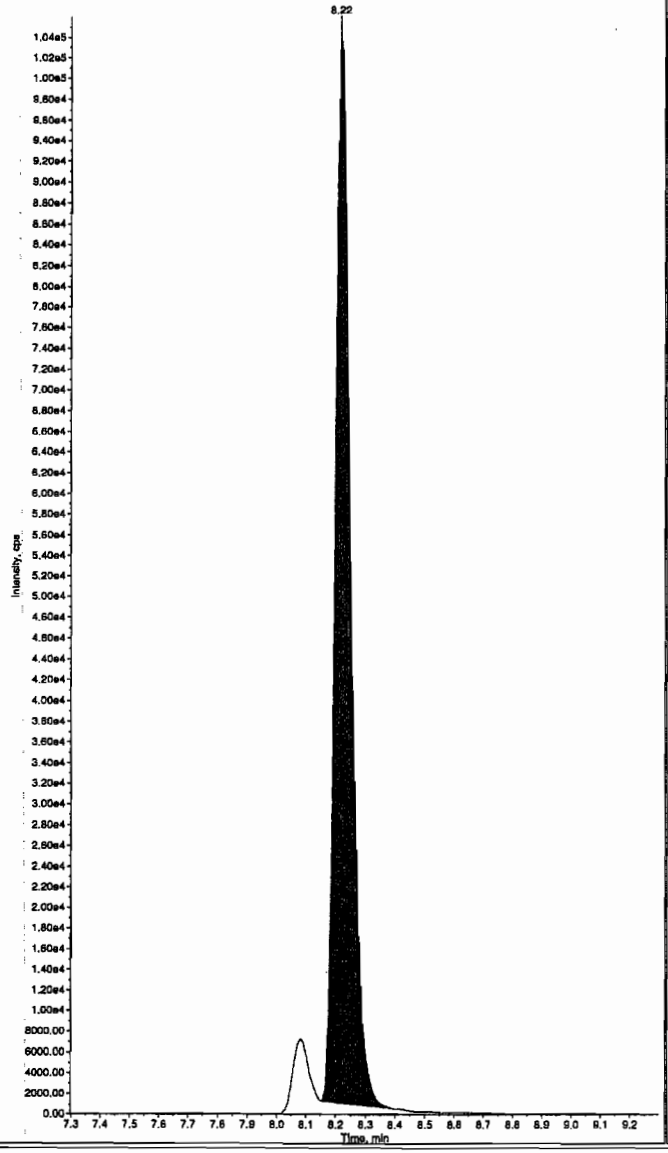
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090065.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: 46.7 ng/mL
Acq. Date: 4/10/2010
Acq. Time: 12:00:00 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: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.93e+005 counts
Height: 104849.785 cps
Start Time: 8.15 min
End Time: 8.39 min

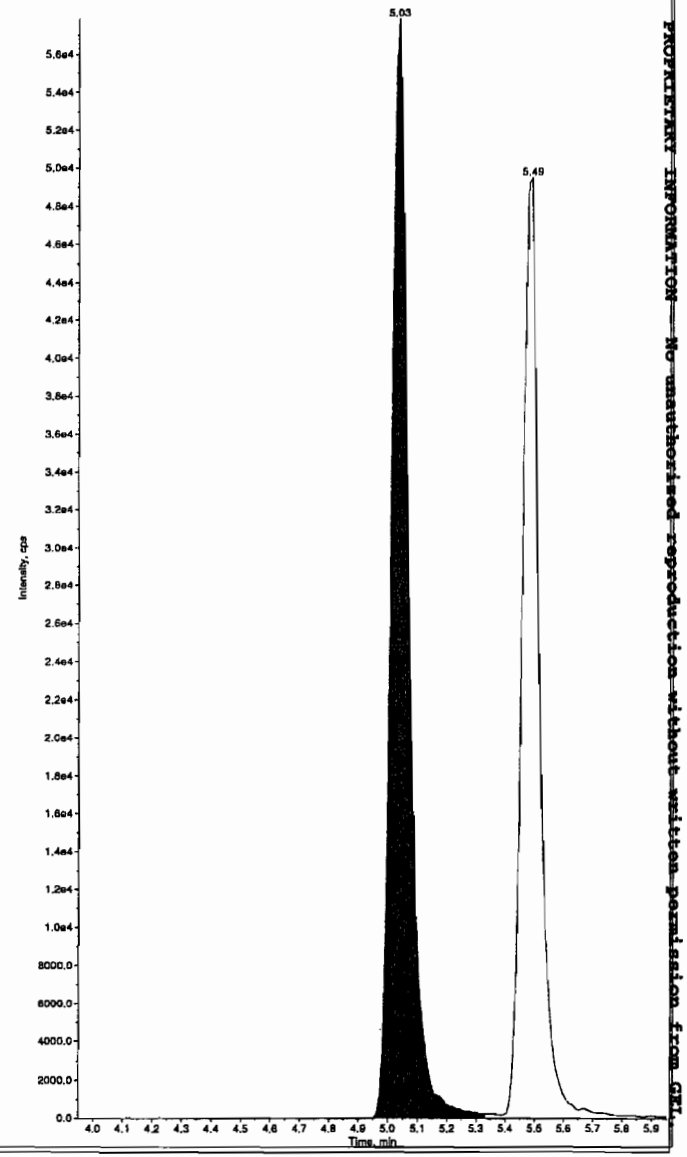


Sample Name: "WXX100409-27CRI" Sample ID: "[1]LER" File: "EXS04090065.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 85.8 ng/mL
Acq. Date: 4/10/2010
Acq. Time: 12:00:00 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 2.55e+005 counts
Height: 57887.180 cps
Start Time: 4.88 min
End Time: 5.33 min



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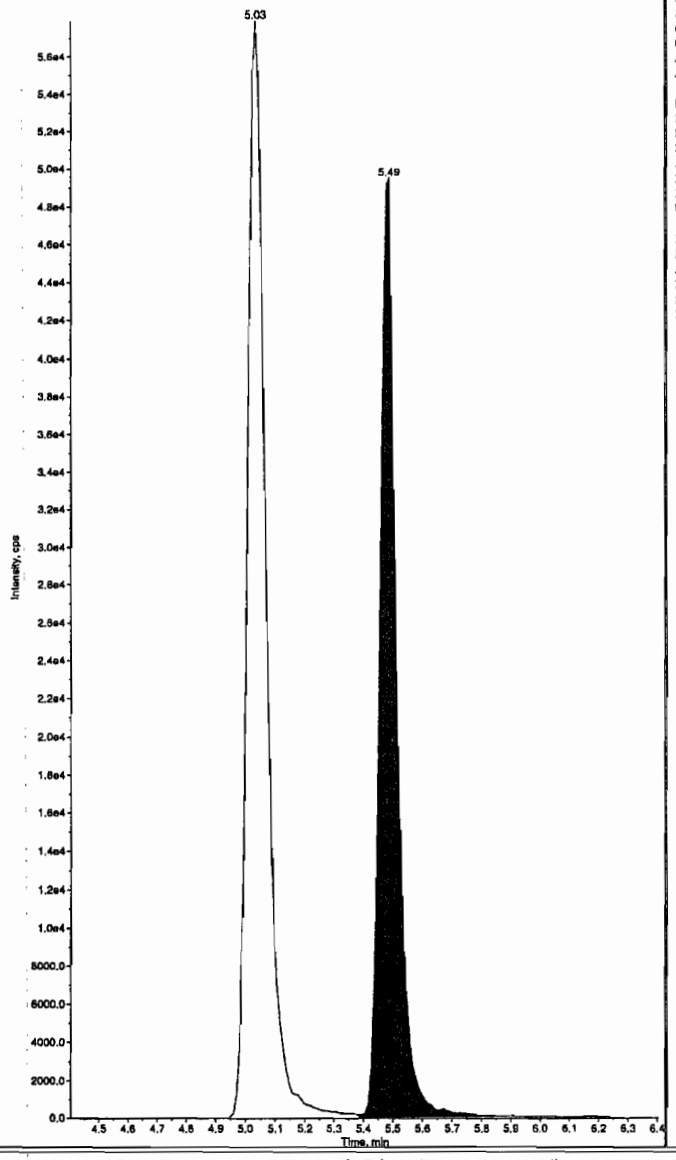
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090065.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:    96.4     ng/mL
Acq. Date:       4/10/2010
Acq. Time:       12:00:00 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:        5.40    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.49    min
Area:          2.03e+005   counts
Height:         49435.459  cps
Start Time:         5.38    min
End Time:           5.87    min
```

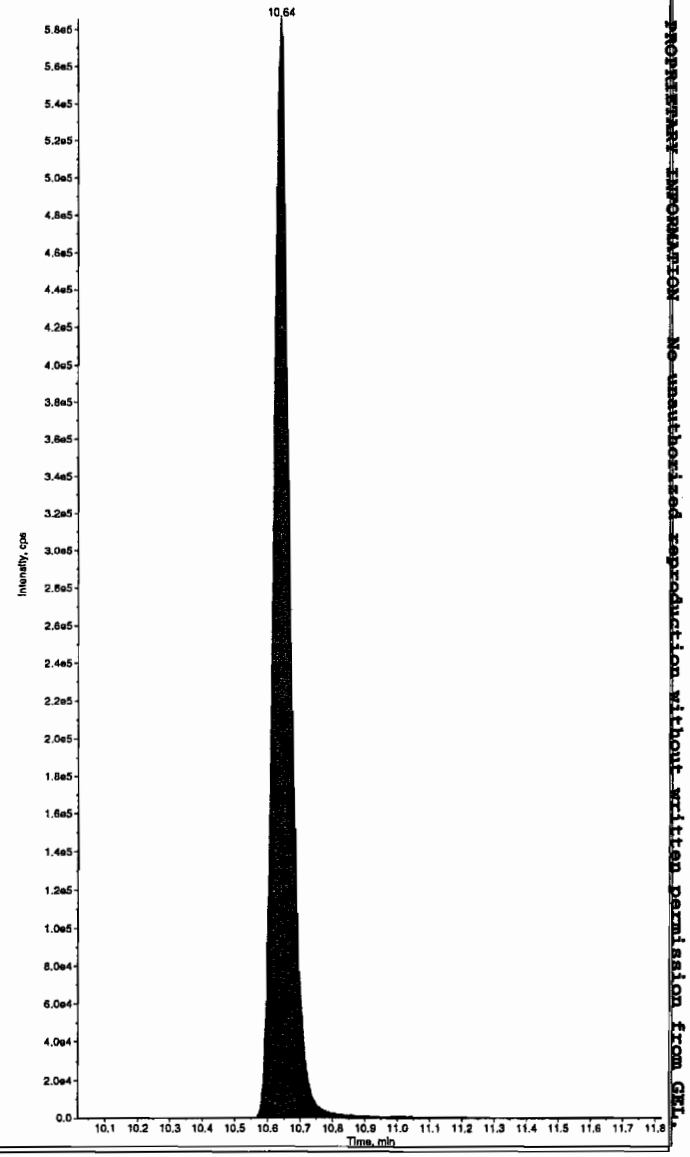


Sample Name: "WXX100409-27CRI" Sample ID: "|1|LER" File: "EXS04090065.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.     ng/mL
Calculated Conc:    107.     ng/mL
Acq. Date:       4/10/2010
Acq. Time:       12:00:00 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:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.6    min
Area:          2.18e+006   counts
Height:        585488.098  cps
Start Time:         10.5    min
End Time:           11.0    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 961016

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 1202061319

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415066.wiff

Date Analyzed: 16-APR-10 14:15

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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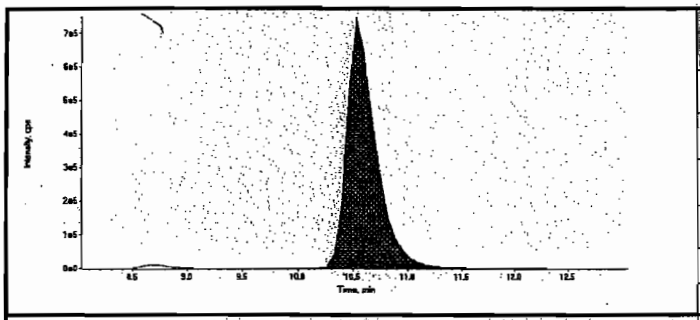
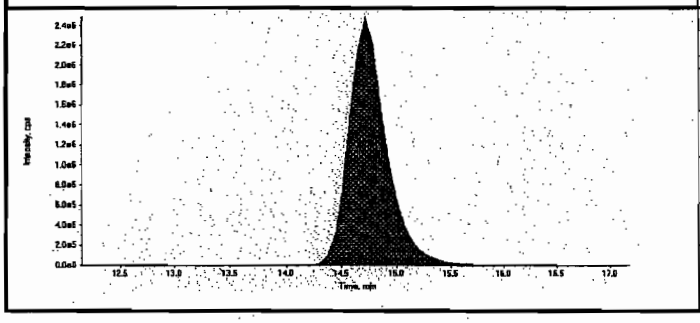
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

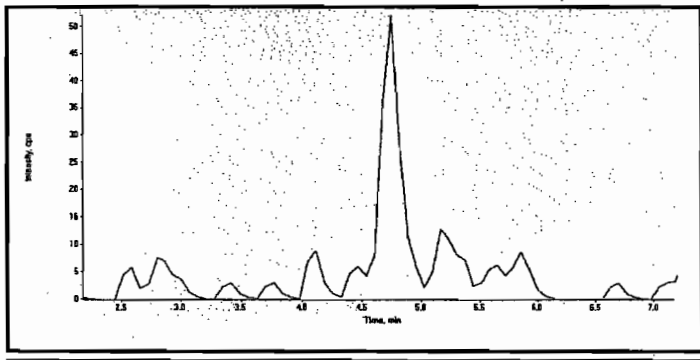
Data File	EXP0415066.wiff	Acquisition Date	4/16/2010 2:15:06 PM
Sample Name	1202061319	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



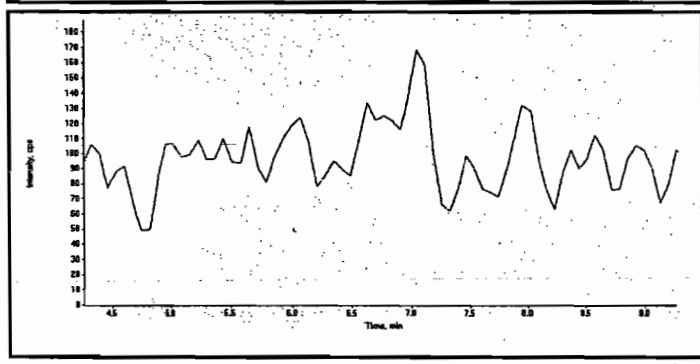
Compound Name:	1,3-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	2,6-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	59200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (345.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ker 4/23/10 HMM 04/23/10

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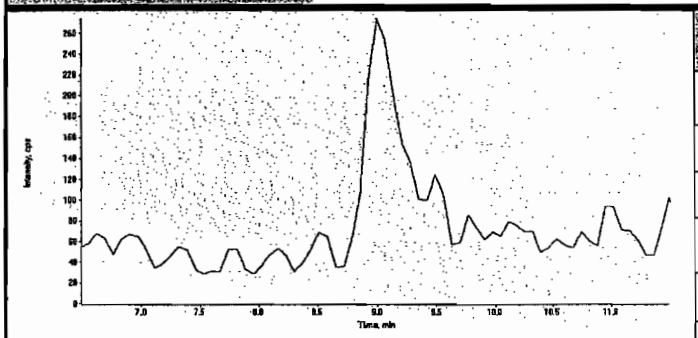
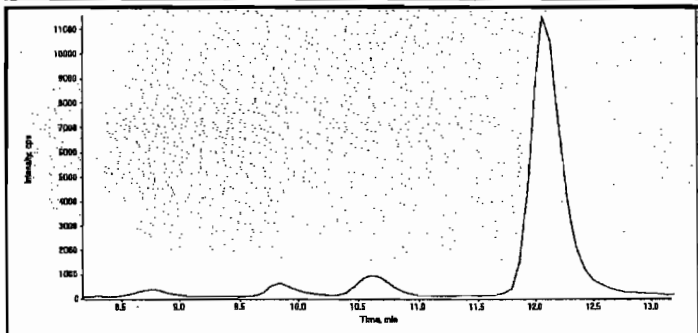
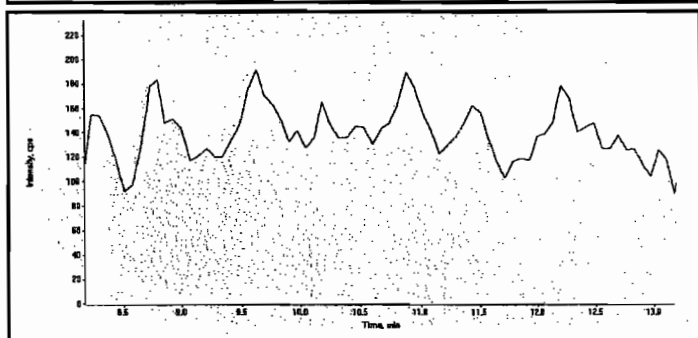
Data File	EXP0415066.wiff	Acquisition Date	4/16/2010 2:15:06 PM
Sample Name	1202061319	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



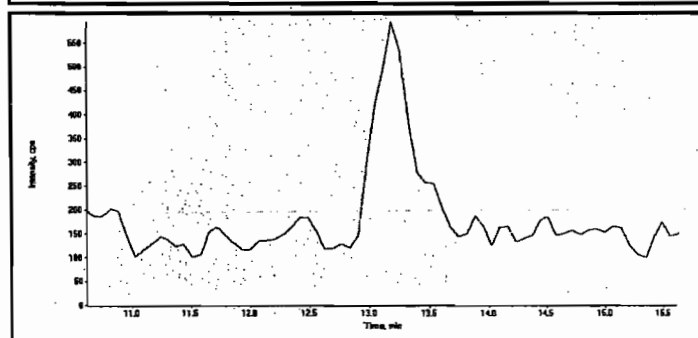
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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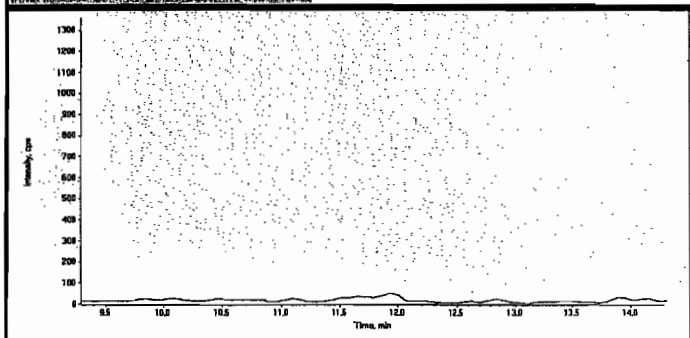
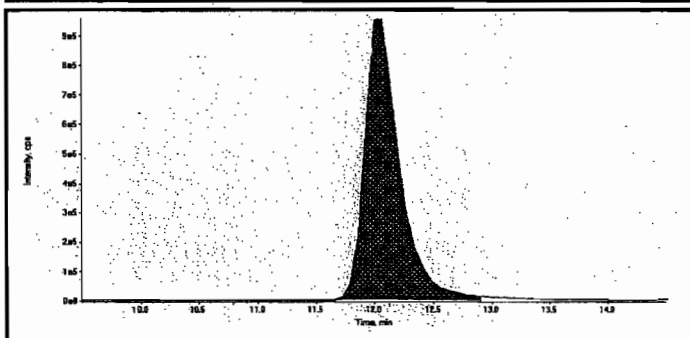
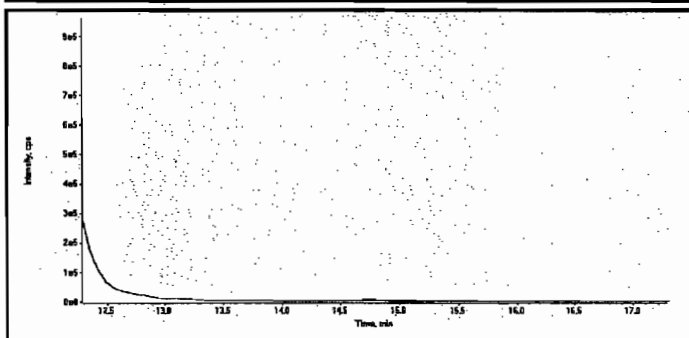
Data File	EXP0415066.wiff	Acquisition Date	4/16/2010 2:15:06 PM
Sample Name	1202061319	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



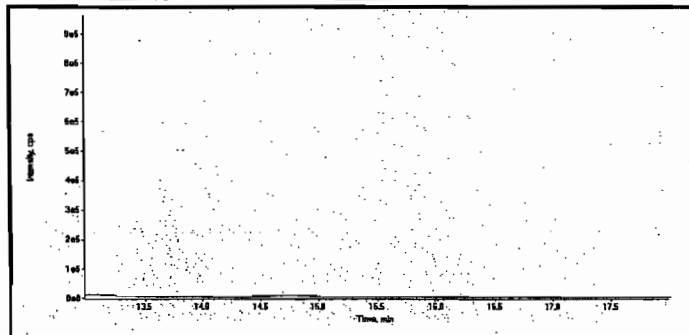
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	2.03e+007
Manual Modification	No
Amount:	261. (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.7
Area Counts:	1.55e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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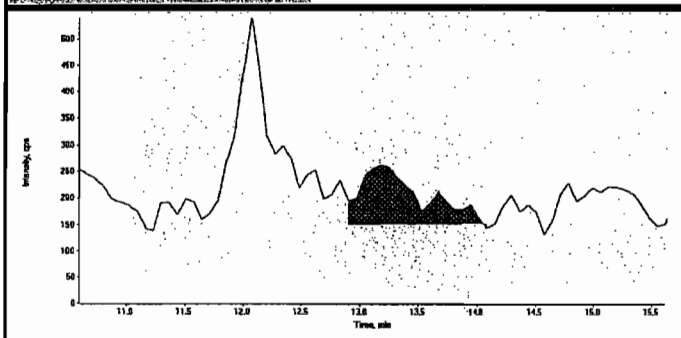
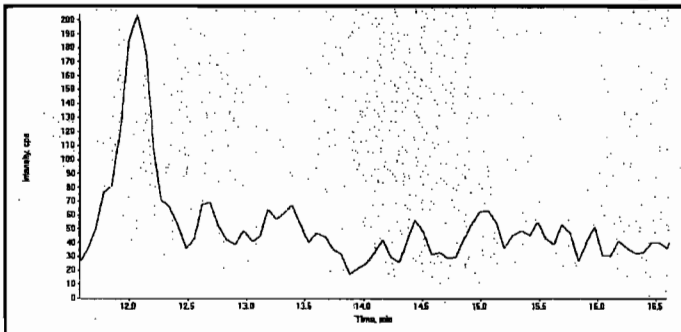
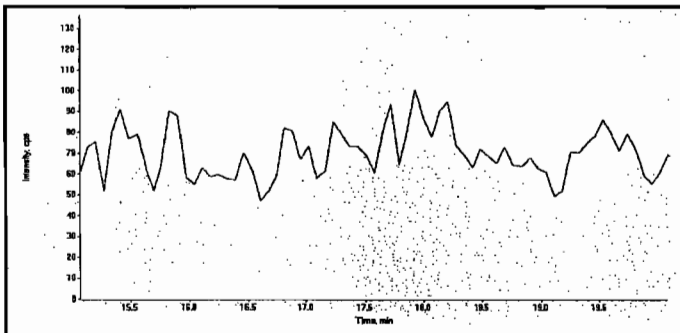
Data File	EXP0415066.wiff	Acquisition Date	4/16/2010 2:15:06 PM
Sample Name	1202061319	Acquisition Method	8321.dam
Batch\Dilution\Analyst	961033\2\LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



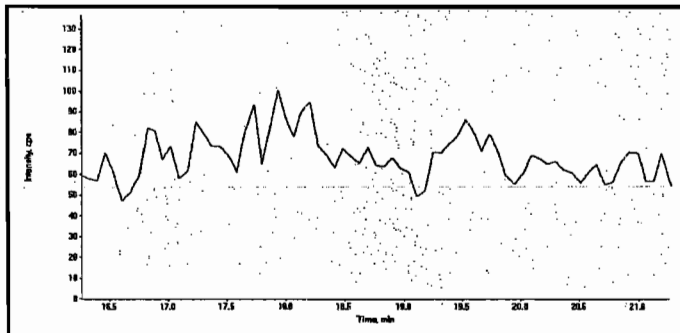
Compound Name:	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	4.19e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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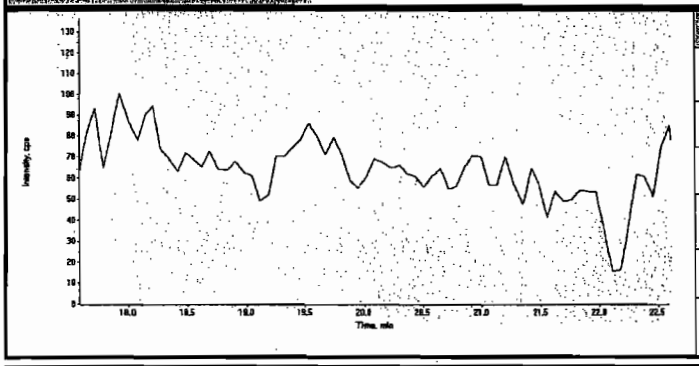
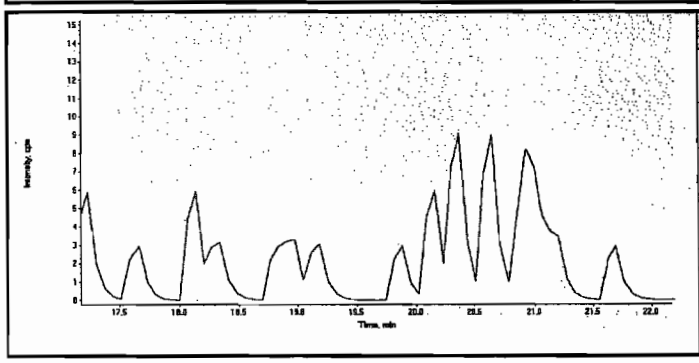
Data File	EXP0415066.wiff	Acquisition Date	4/16/2010 2:15:06 PM
Sample Name	1202061319	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 961016

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 1202061319

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090045.wiff

Date Analyzed: 09-APR-10 18:45

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 =

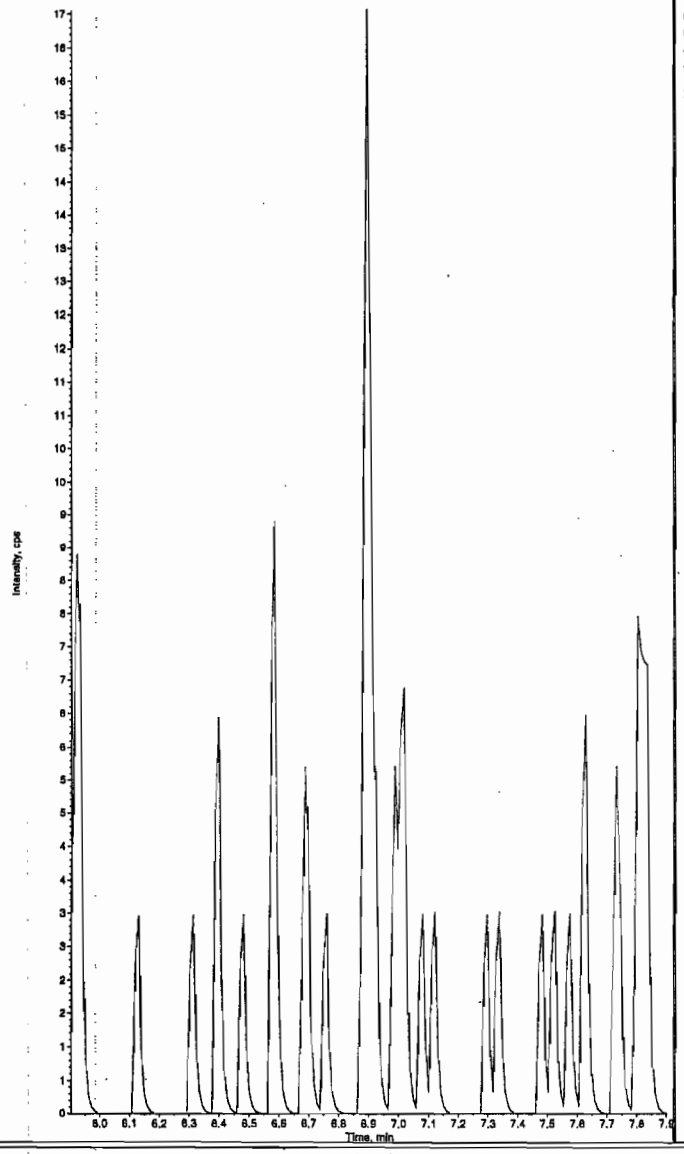
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

RCR 4/12/10

Sample Name: "1202061319" Sample ID: "961033|2|LER" File: "EXS04090045.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: 4/9/2010
Acq. Time: 6:45:58 PM

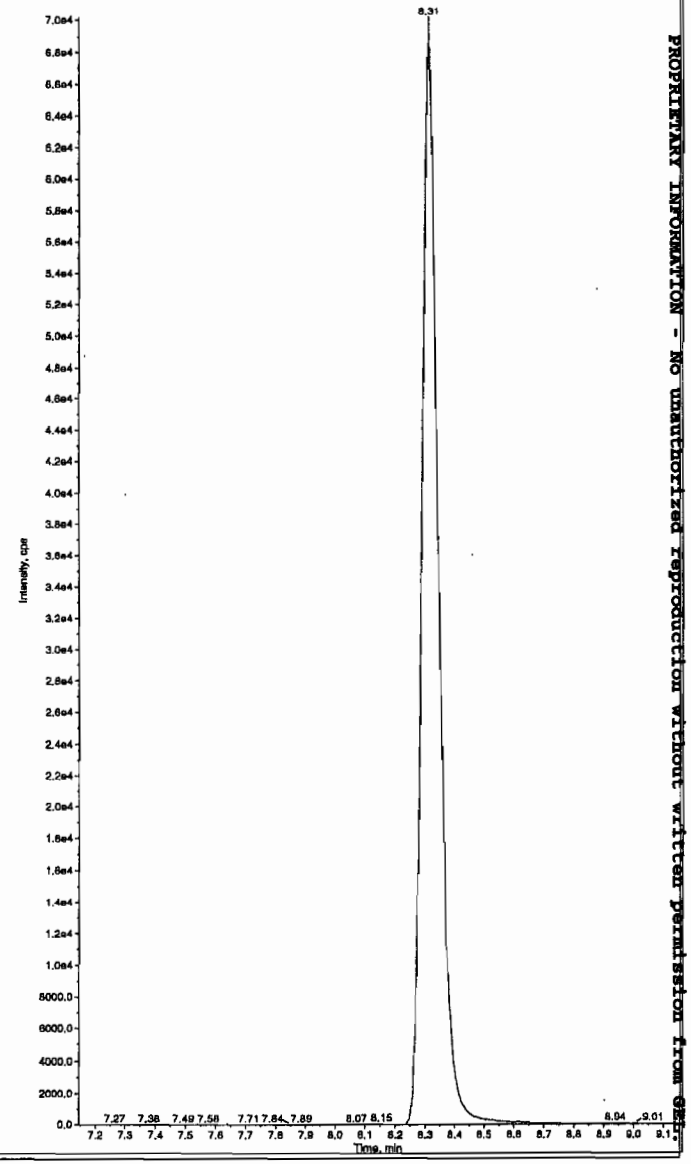
Modified: No



Sample Name: "1202061319" Sample ID: "961033|2|LER" File: "EXS04090045.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: 4/9/2010
Acq. Time: 6:45:58 PM

Modified: No



Hmk 04/12/10

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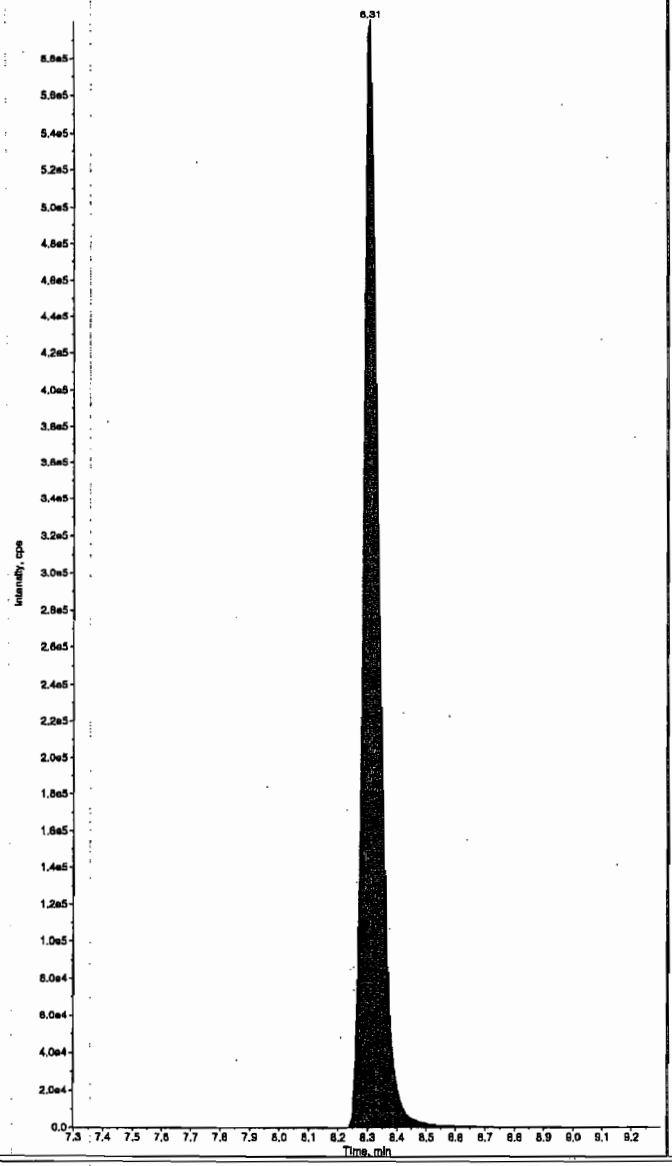
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202061319" Sample ID: "961033|2|LER" File: "EXS04090045.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: 269. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 6:45:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

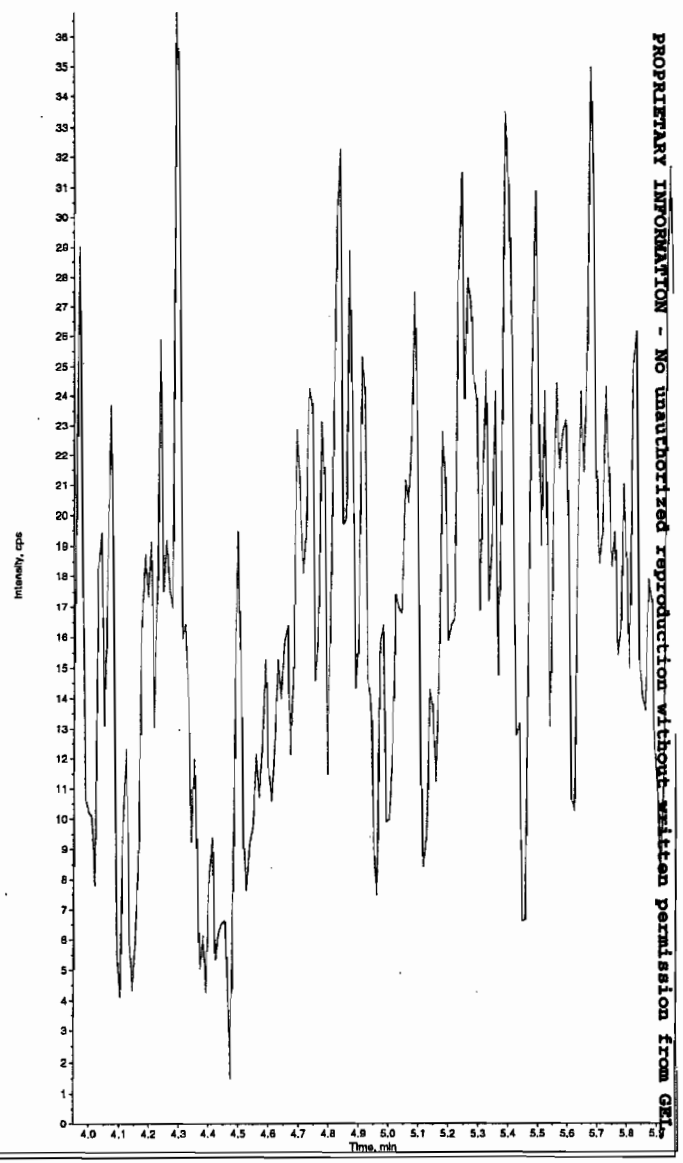
Int. Type: Valley
Retention Time: 8.31 min
Area: 2.41e+006 counts
Height: 599680.359 cps
Start Time: 8.21 min
End Time: 8.83 min



Sample Name: "1202061319" Sample ID: "961033|2|LER" File: "EXS04090045.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: 4/9/2010
Acq. Time: 6:45:58 PM

Modified: No



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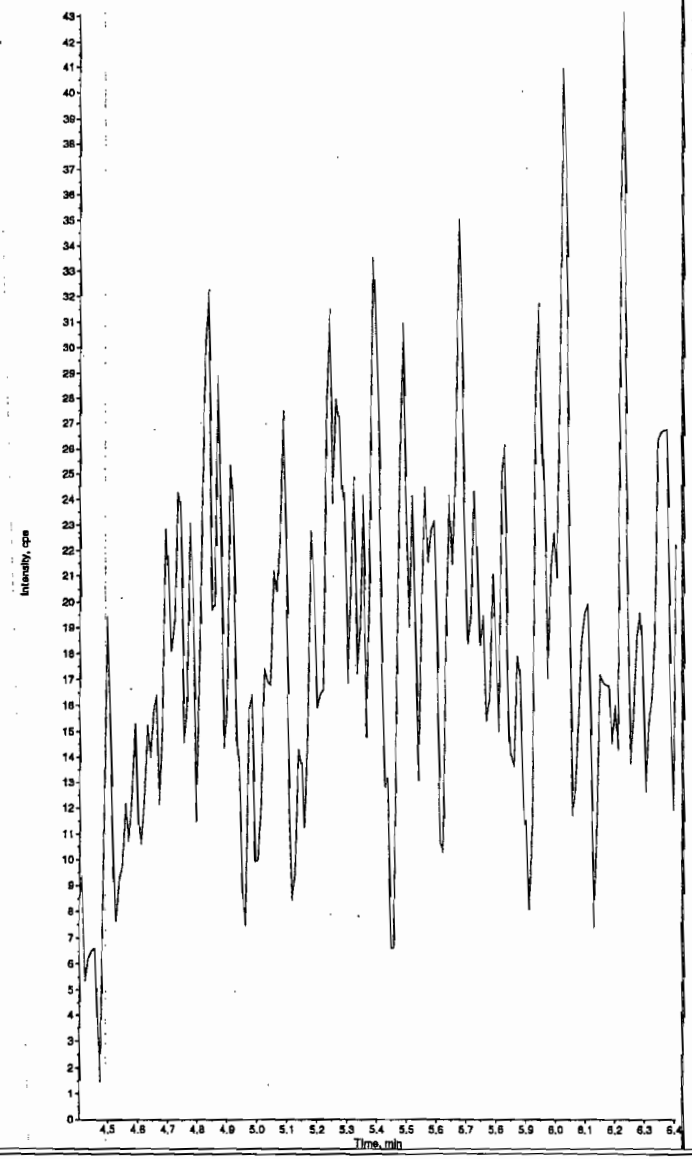
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202061319" Sample ID: "961033|2|LER" File: "EXS04090045.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: 4/9/2010
Acq. Time: 6:45:58 PM

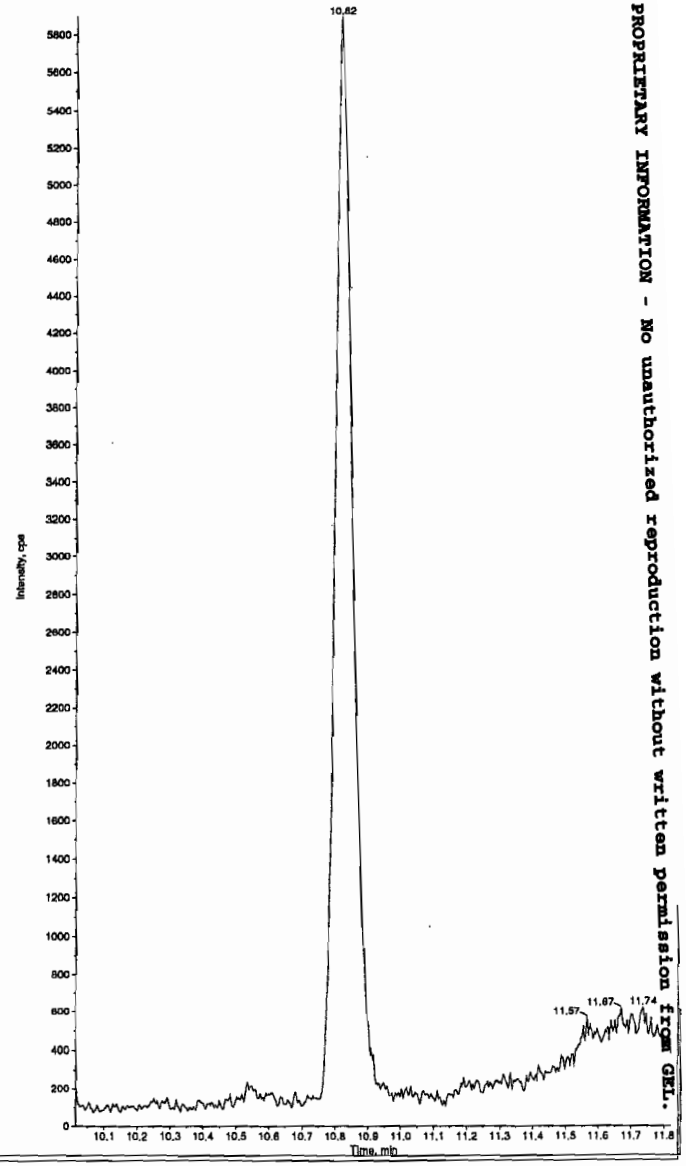
Modified: No



Sample Name: "1202061319" Sample ID: "961033|2|LER" File: "EXS04090045.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: 4/9/2010
Acq. Time: 6:45:58 PM

Modified: No



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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 961016

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 1202061320

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415067.wiff

Date Analyzed: 16-APR-10 14:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4030	
121-14-2	2,4-Dinitrotoluene	4770	
121-82-4	RDX	6110	
19406-51-0	4-Amino-2,6-dinitrotoluene	3920	
2691-41-0	HMX	4990	
35572-78-2	2-Amino-4,6-dinitrotoluene	4000	
479-45-8	Tetryl	204	J
606-20-2	2,6-Dinitrotoluene	4230	
78-11-5	PETN	5320	
88-72-2	o-Nitrotoluene	5170	
98-95-3	Nitrobenzene	4530	
99-08-1	m-Nitrotoluene	4880	
99-35-4	1,3,5-Trinitrobenzene	3530	
99-65-0	m-Dinitrobenzene	5290	
99-99-0	p-Nitrotoluene	4920	

*Concentration =

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

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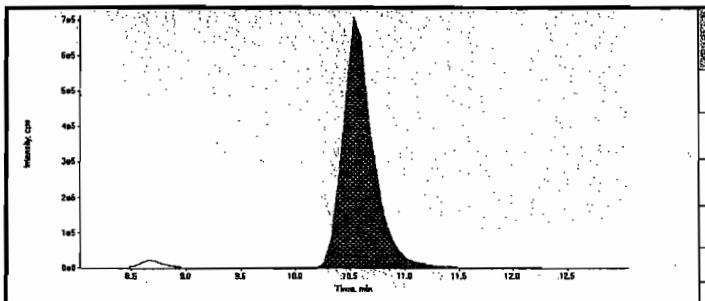
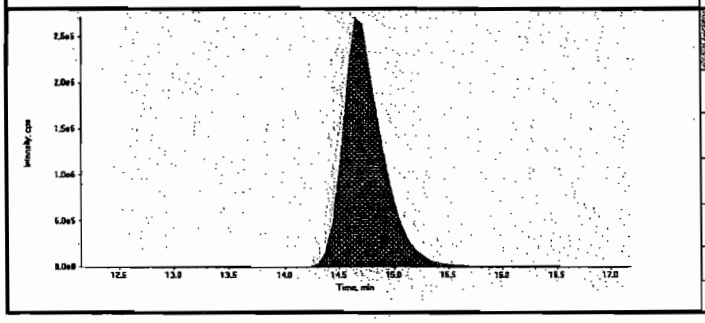
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

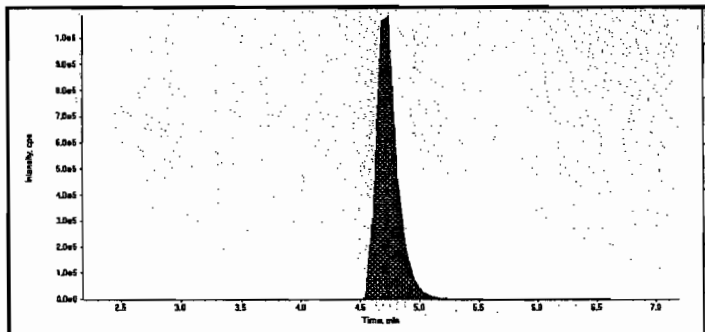
Data File	EXP0415067.wiff	Acquisition Date	4/16/2010 2:41:01 PM
Sample Name	1202061320	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



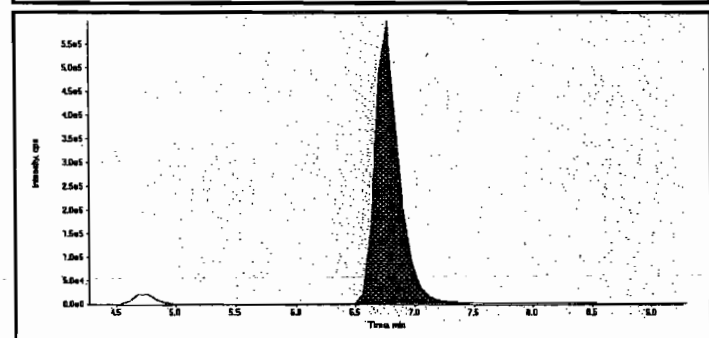
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	67200000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.39e+007
Manual Modification	No
Amount:	499. (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.58e+006
Manual Modification	No
Amount:	611. (ng/mL)
% Accuracy:	N/A

Lan 4/23/10 4/21 M 04/23/10

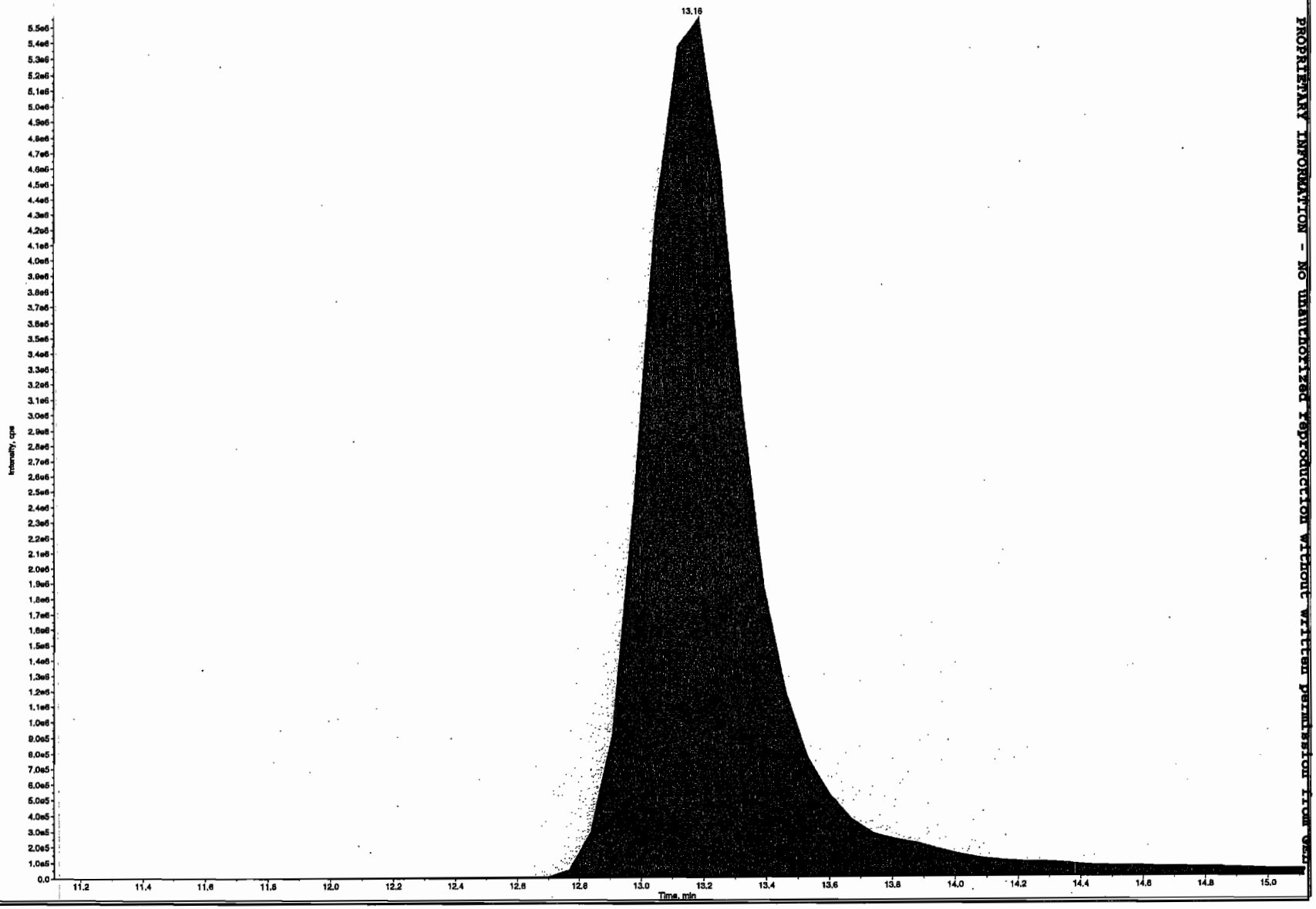
Before LCR 4/23/10

Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXP0415067.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 440. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 2:41:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.2 min
Area: 1.43e+008 counts
Height: 5.56e+006 cps
Start Time: 12.6 min
End Time: 17.2 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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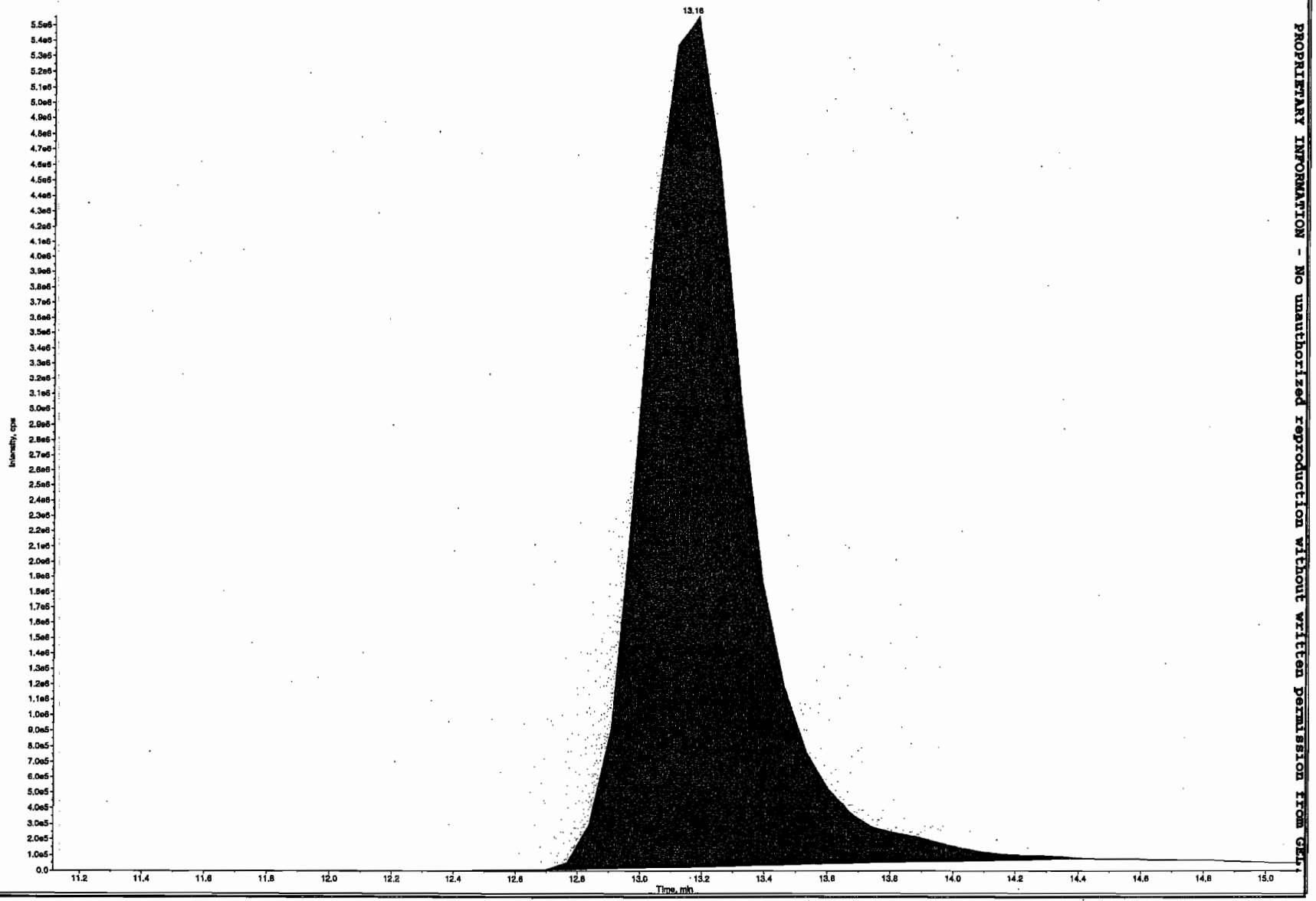
after dan 4/23/10

Sample Name: "1202061320" Sample ID: "9610332[LER"; File: "EXP0415067.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.6 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 403. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 2:41:01 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 13.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 13.2 min
Area: 1.33e+008 counts
Height: 3.60e+006 cps
Start Time: 12.6 min
End Time: 14.4 min



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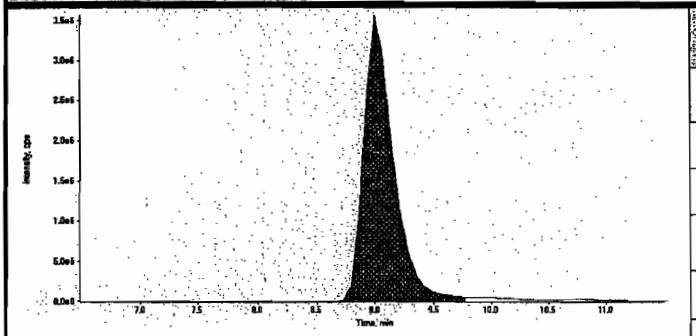
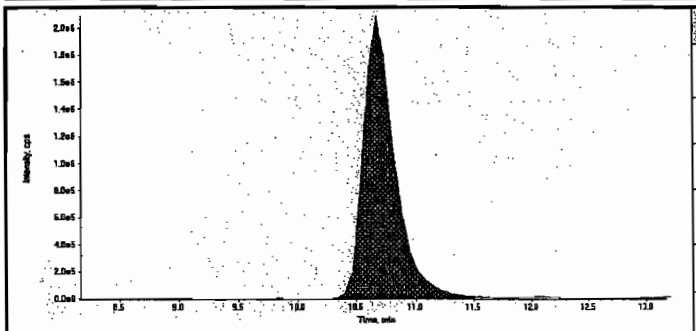
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

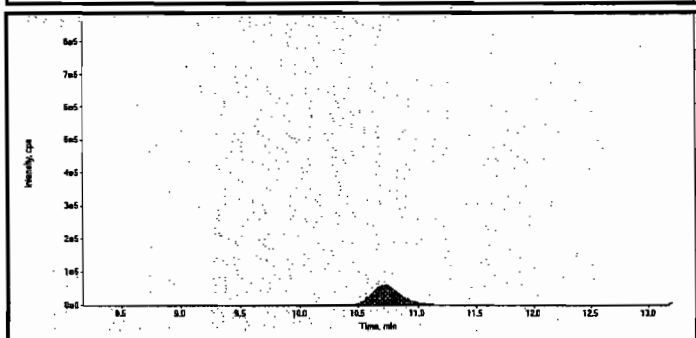
Data File	EXP0415067.wiff	Acquisition Date	4/16/2010 2:41:01 PM
Sample Name	1202061320	Acquisition Method	8321.dam
Batch Dilution Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



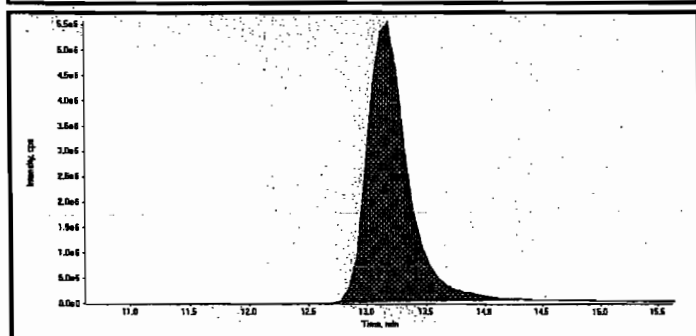
Compound Name	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	9.00
Area Counts:	6.42e+007
Manual Modification	No
Amount:	353. (ng/mL)
% Accuracy:	N/A



Compound Name	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	3.93e+007
Manual Modification	No
Amount:	529. (ng/mL)
% Accuracy:	N/A



Compound Name	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	1.13e+006
Manual Modification	No
Amount:	20.4 (ng/mL)
% Accuracy:	N/A



Compound Name	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.33e+008
Manual Modification	Yes
Amount:	403. (ng/mL)
% Accuracy:	N/A

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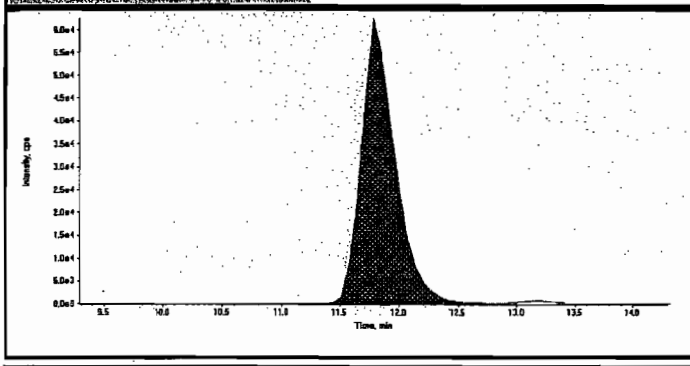
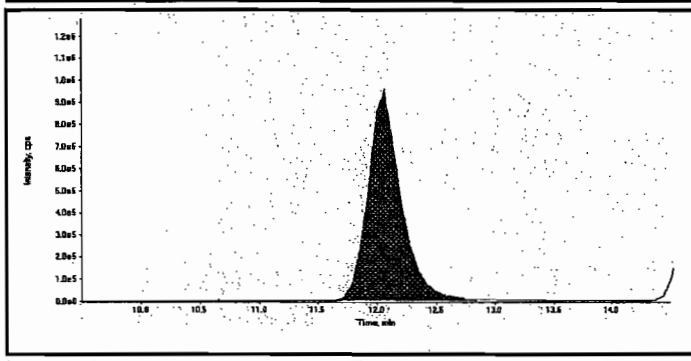
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM
LCMSMS#3

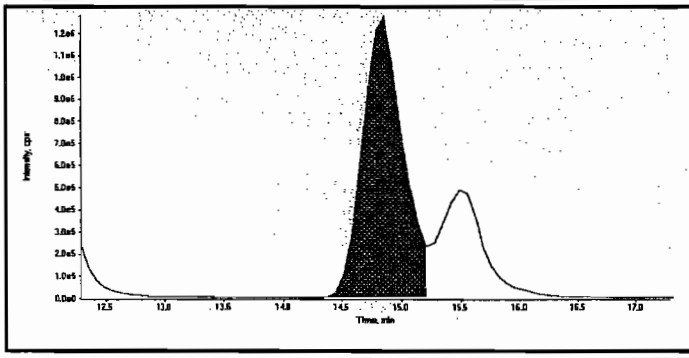
Data File	EXP0415067.wiff	Acquisition Date	4/16/2010 2:41:01 PM
Sample Name	1202061320	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



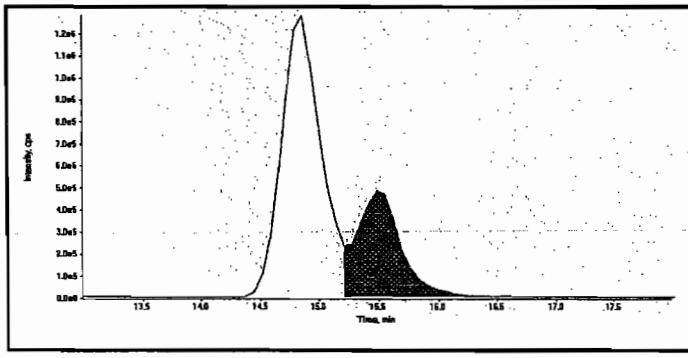
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	1.25e+006
Manual Modification	No
Amount:	453. (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	1.85e+007
Manual Modification	No
Amount:	209. (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	3.05e+007
Manual Modification	No
Amount:	423. (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.32e+007
Manual Modification	No
Amount:	477. (ng/mL)
% Accuracy:	N/A

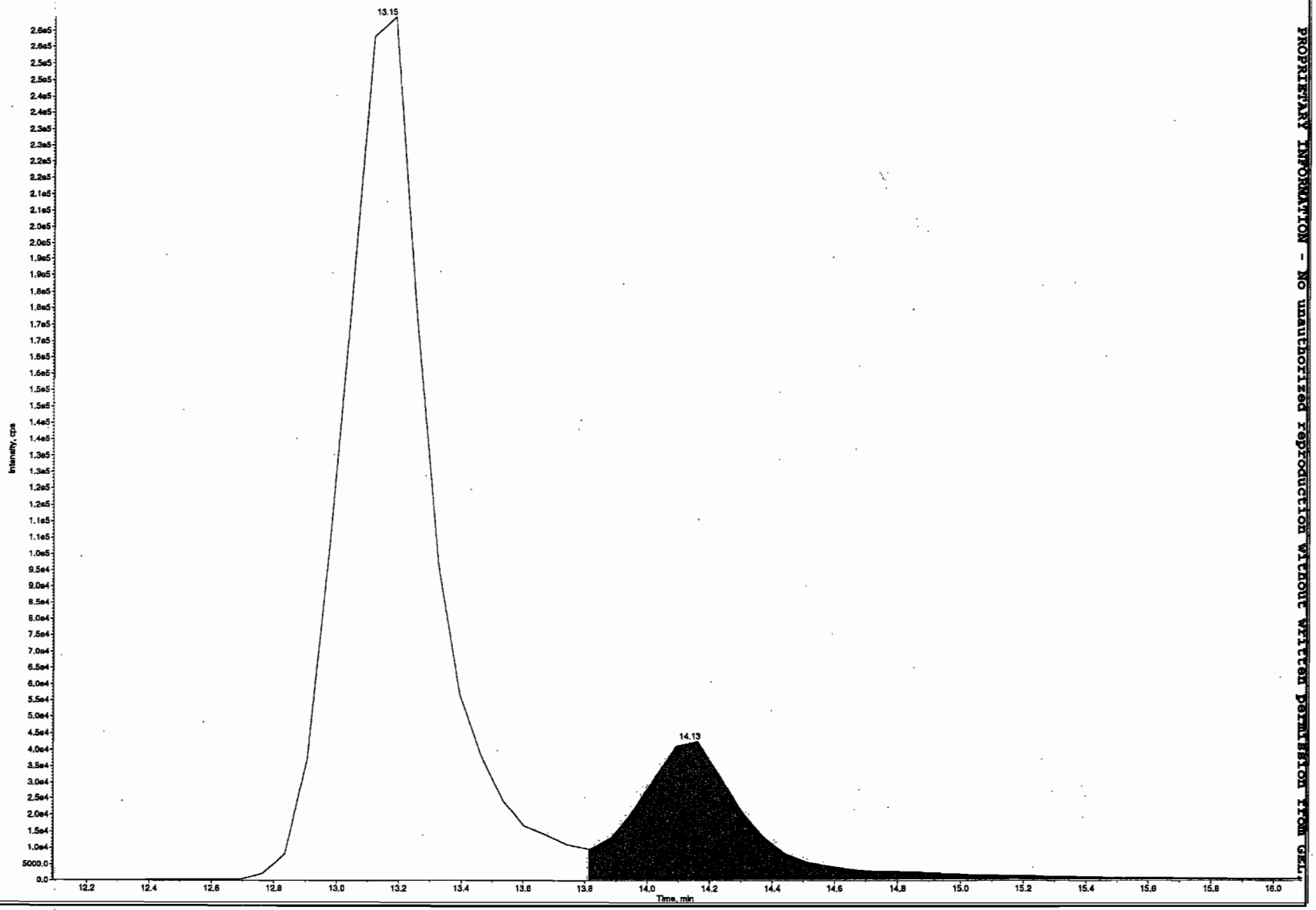
Before Star 4/23/10

Sample Name: "1202061320" Sample ID: "9610332[LER" File: "EXP0415067.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 443. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 2:41:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 1.11e+006 counts
Height: 4.20e+004 cps
Start Time: 13.8 min
End Time: 16.5 min



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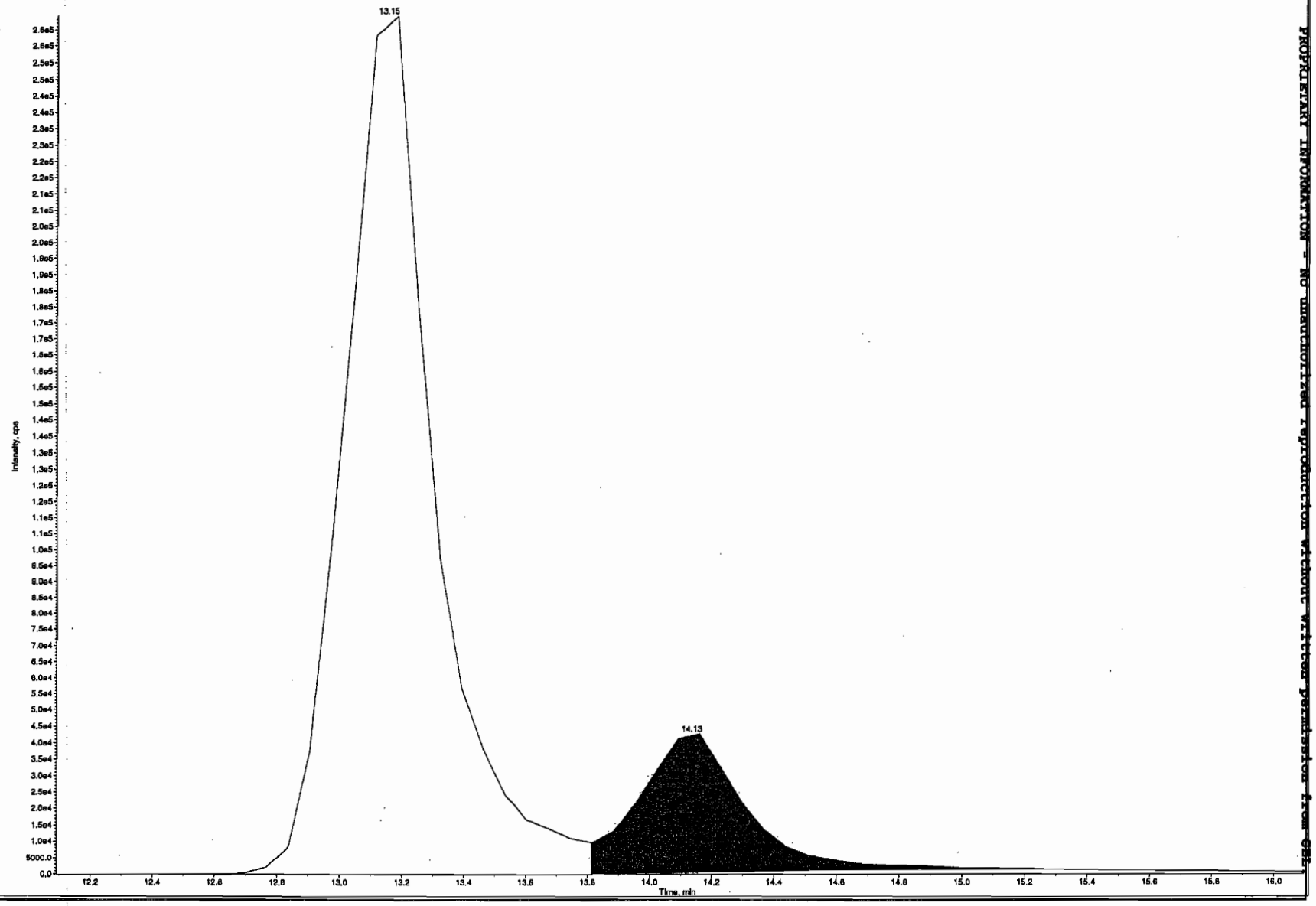
after dcn 4/23/10

Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXP0415067.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX8321_5" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 400. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 3:41:01 PM

Modified: Yes
RT Window: 30.0 sec
Expected RT: 14.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.1 min
Area: 1.01e+006 counts
Height: 4.27e+004 cps
Start Time: 13.8 min
End Time: 15.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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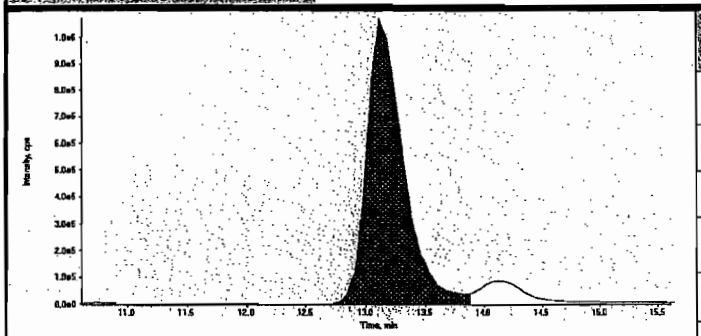
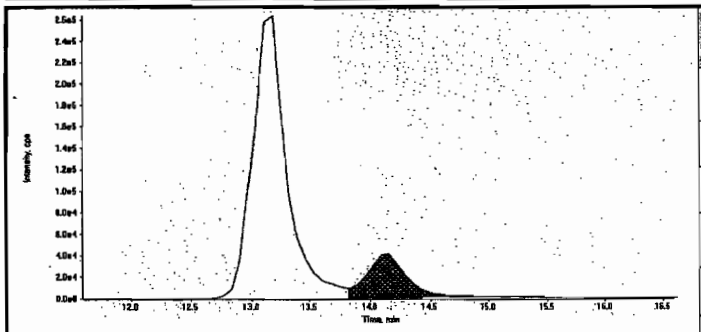
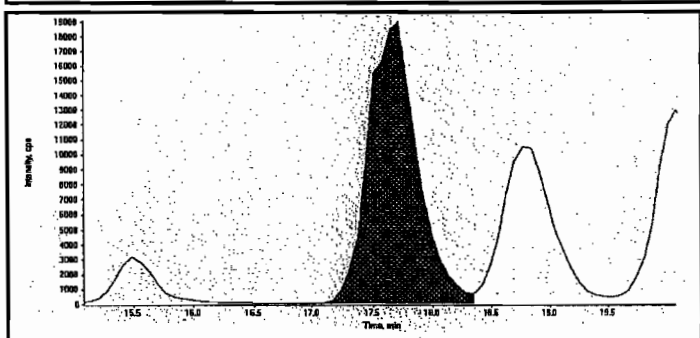
Data File	EXP0415067.wiff	Acquisition Date	4/16/2010 2:41:01 PM
Sample Name	1202061320	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**



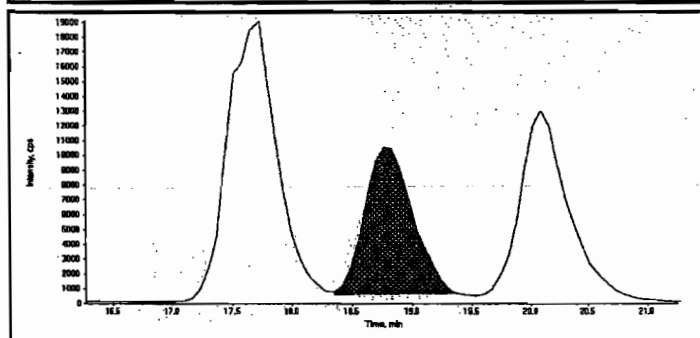
Compound Name	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	2.36e+007
Manual Modification	No
Amount:	392. (ng/mL)
% Accuracy:	N/A



Compound Name	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.1
Area Counts:	1.01e+006
Manual Modification	Yes
Amount:	400. (ng/mL)
% Accuracy:	N/A



Compound Name	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	5.51e+005
Manual Modification	No
Amount:	517. (ng/mL)
% Accuracy:	N/A



Compound Name	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	2.86e+005
Manual Modification	No
Amount:	492. (ng/mL)
% Accuracy:	N/A

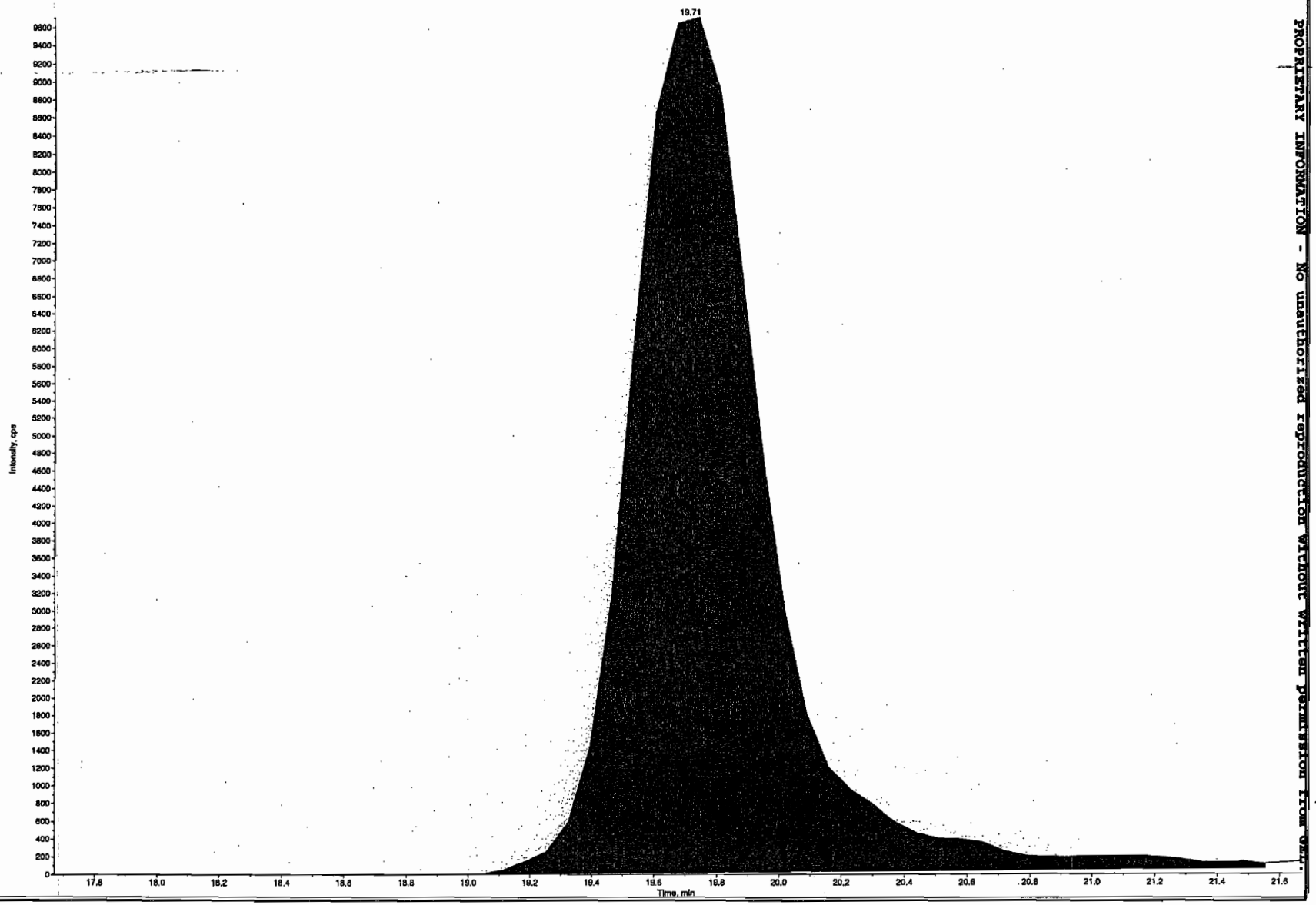
Before Lan 4/23/10

Sample Name: "1202061320" Sample ID: "981033(2)LER" File: "EXP0415067.wiff"
Peak Name: "PETN" Mass(es): "361.1/62.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 543. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 2:41:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 19.7 min
Area: 2.98e+005 counts
Height: 9.69e+003 cps
Start Time: 18.9 min
End Time: 21.6 min



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

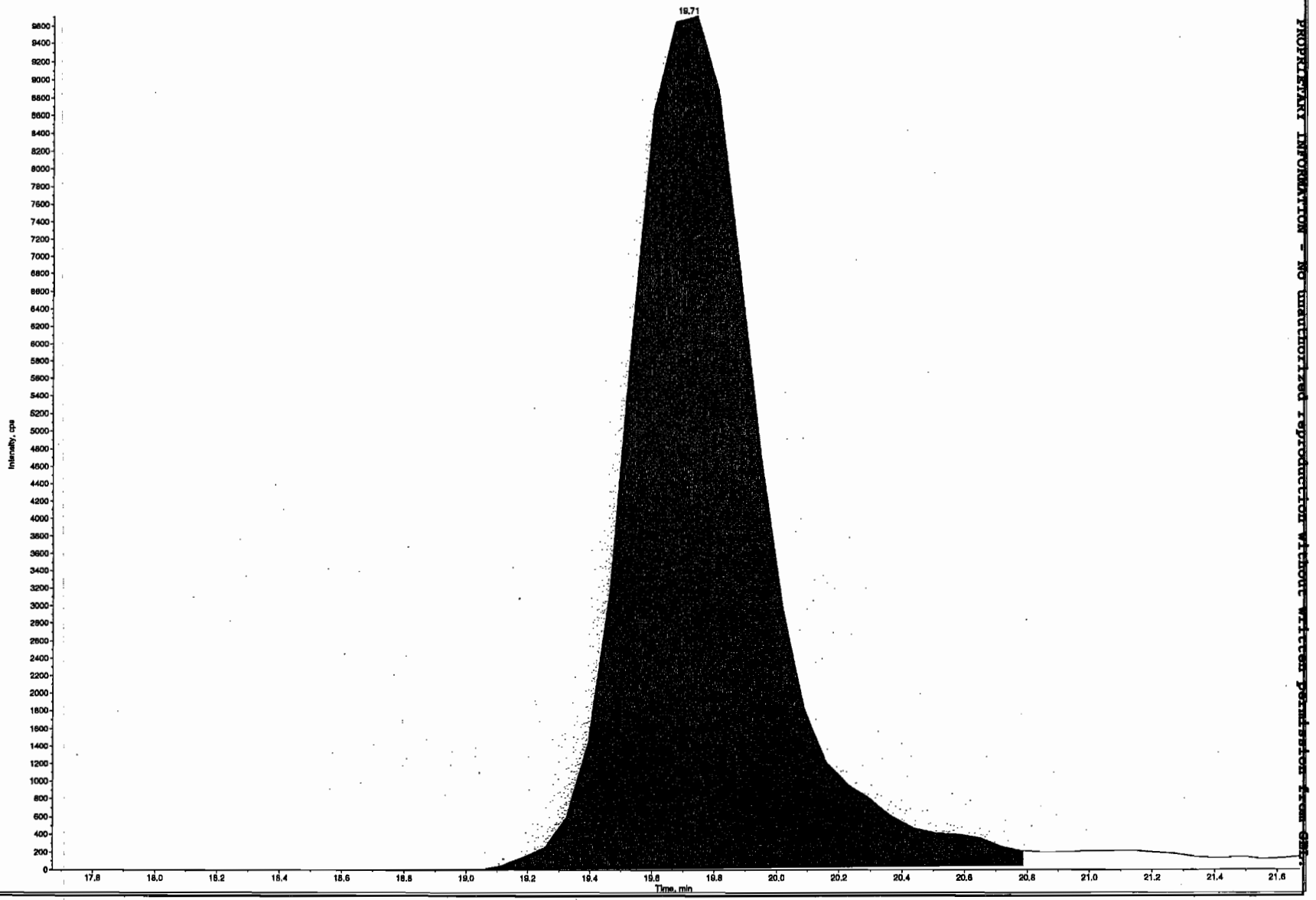
after Dan 4/23/10

Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXP0415067.wiff"
Peak Name: "PETN" Mass(es): "351.1/52.0 amu"
Comment: "LCX8321_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 533. ng/mL
Acq. Date: 4/16/2010
Acq. Time: 2:41:01 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 19.7 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 19.7 min
Area: 2.92e+005 counts
Height: 9.77e+003 cps
Start Time: 19.0 min
End Time: 20.8 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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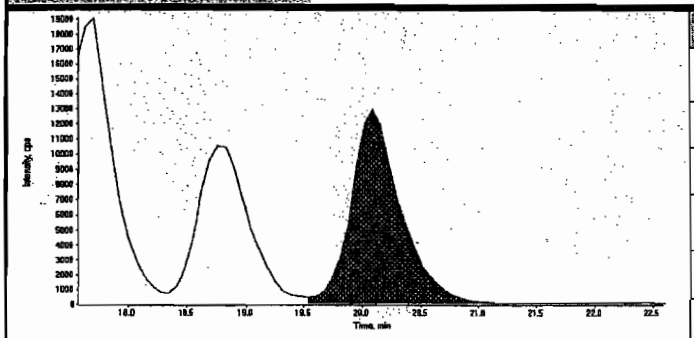
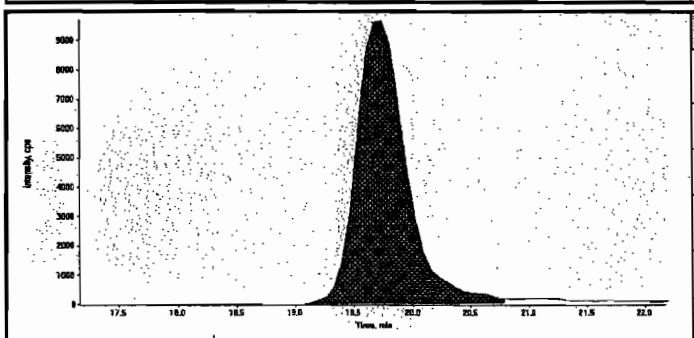
Data File:	EXP0415067.wiff	Acquisition Date:	4/16/2010 2:41:01 PM
Sample Name:	1202061320	Acquisition Method:	8321.dam
Batch|Dilution|Analyst:	961033|2|LER	Result Table:	041510.rdb
Procedure Code:	LCX8321_S	Sample Type:	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	3.89e+005
Manual Modification	No
Amount:	488. (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	2.92e+005
Manual Modification	Yes
Amount:	532. (ng/mL)
% Accuracy:	N/A

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 961016

Lab Code: GEL

GEL Job No (SDG) 10-2198

Matrix: SOIL

GEL Sample ID: 1202061320

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 961016

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090046.wiff

Date Analyzed: 09-APR-10 19:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	4710	
59229-75-3	2,6-Diamino-4-nitrotoluene	5090	
618-87-1	3,5-Dinitroaniline	4980	
6629-29-4	2,4-Diamino-6-nitrotoluene	4790	
78-30-8	tris(o-cresyl) phosphate	4920	

*Concentration =

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

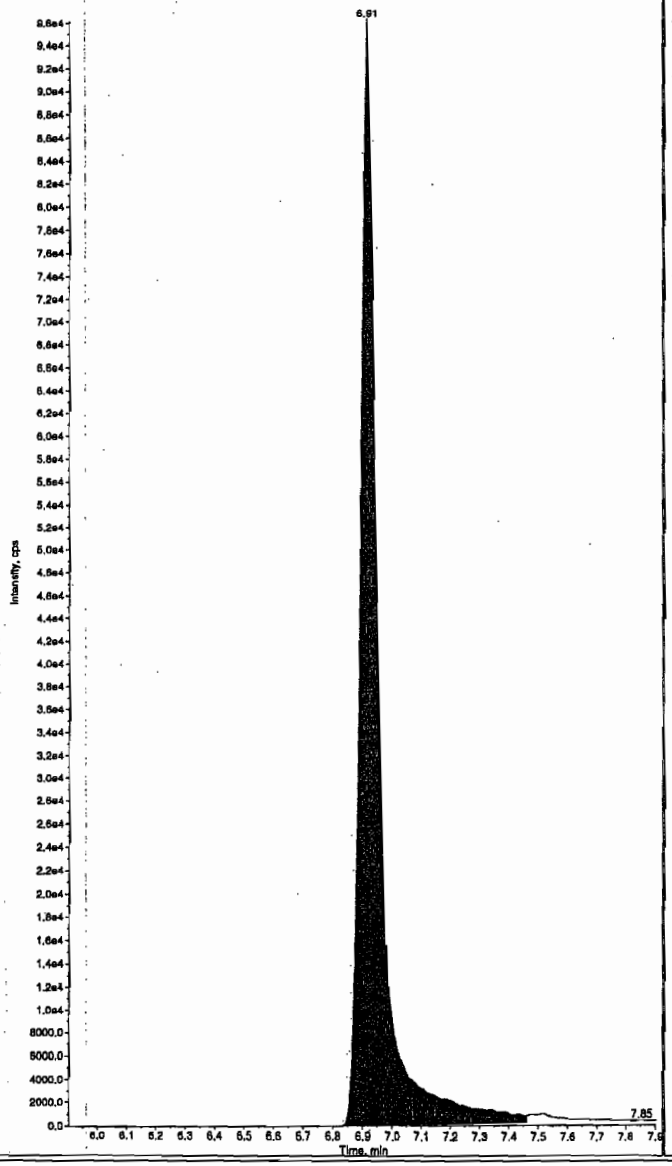
Lan 4/12/10

Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXS04090046.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: 471. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 7:01:40 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.91 min
Area: 4.43e+005 counts
Height: 96080.475 cps
Start Time: 6.82 min
End Time: 7.46 min



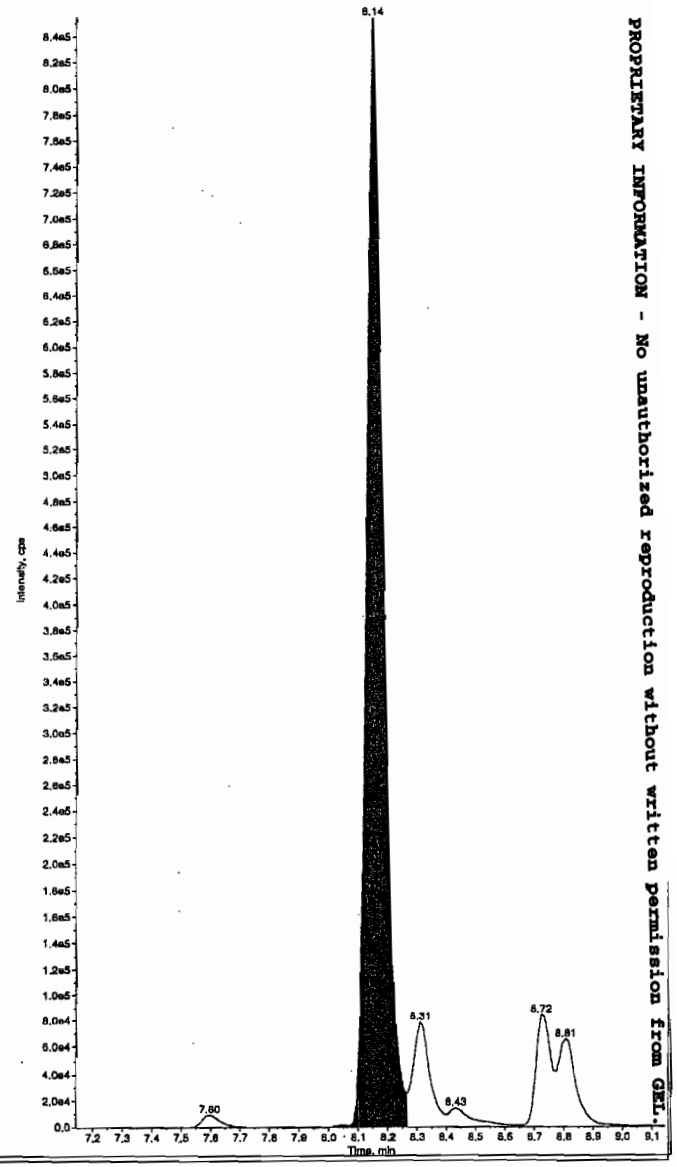
Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXS04090046.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 498. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 7:01:40 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 3.53e+006 counts
Height: 853757.263 cps
Start Time: 7.98 min
End Time: 8.27 min

Anne 04/12/10



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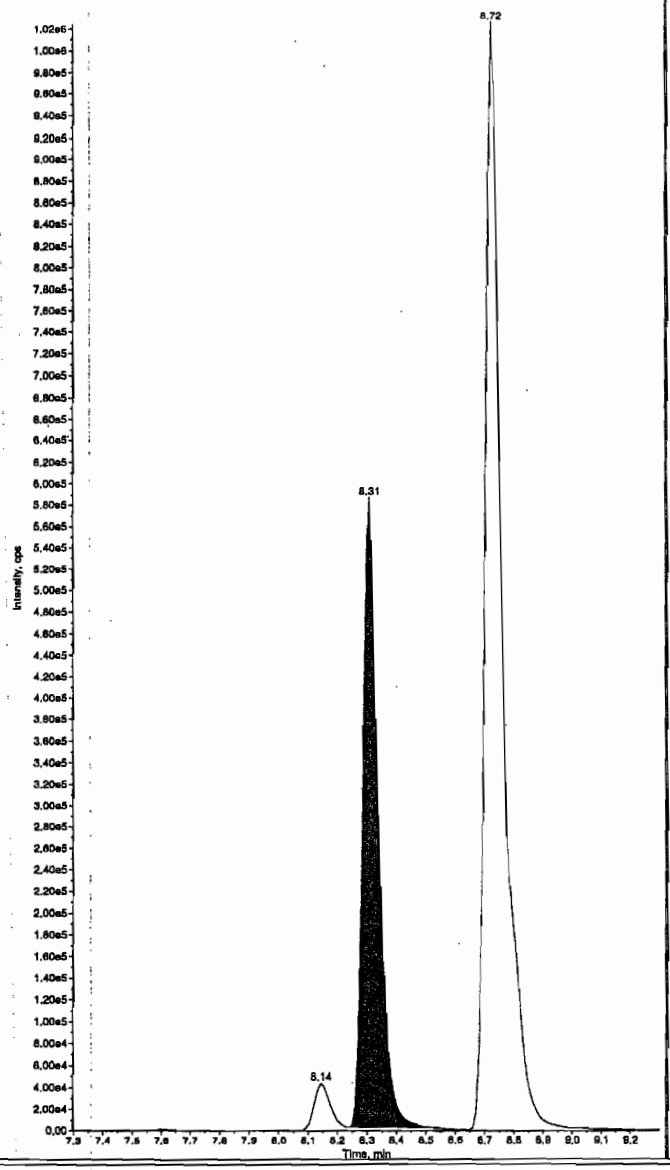
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXS04090046.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: 248. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 7:01:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 2.22e+006 counts
Height: 583529.846 cps
Start Time: 8.24 min
End Time: 8.55 min

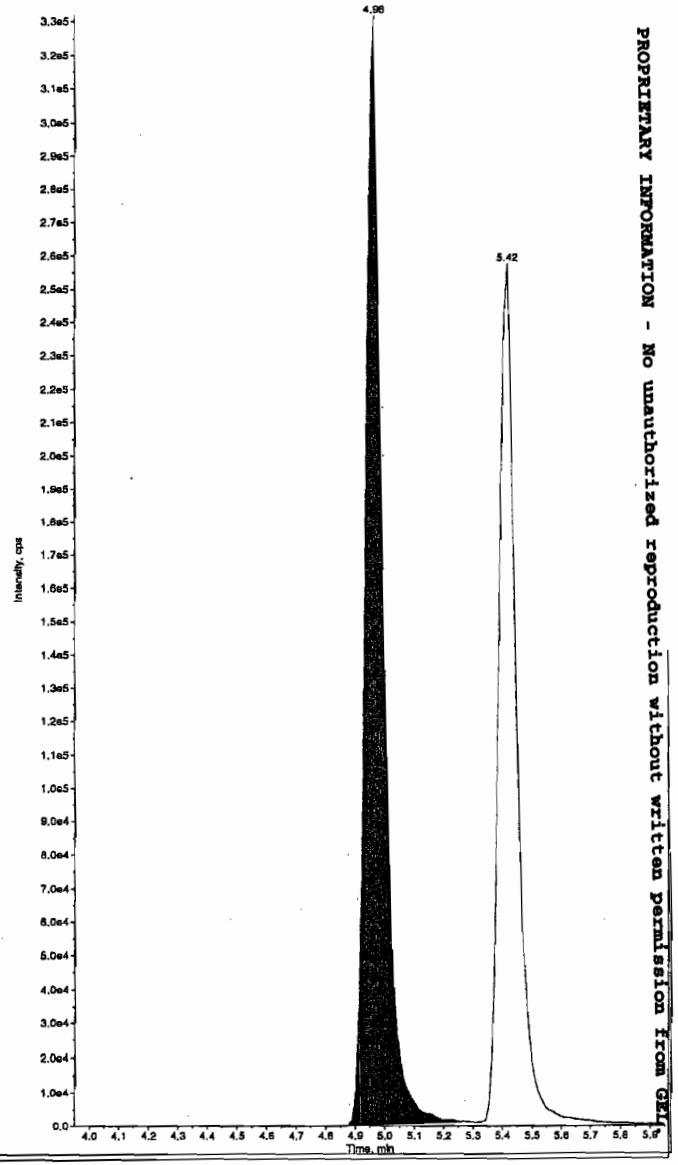


Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXS04090046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 509. ng/mL
Acq. Date: 4/9/2010
Acq. Time: 7:01:40 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.40e+006 counts
Height: 331345.154 cps
Start Time: 4.86 min
End Time: 5.26 min



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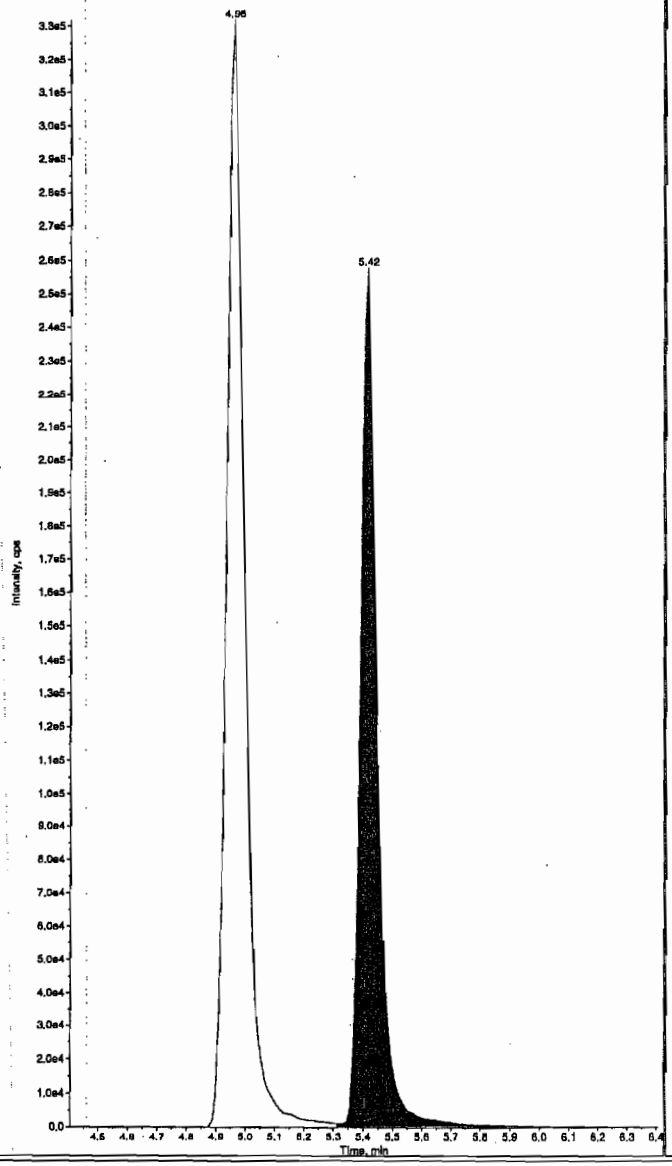
Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXS04090046.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     479.     ng/mL
Acq. Date:        4/9/2010
Acq. Time:        7:01:40 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:        5.40    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.42    min
Area:          1.07e+006    counts
Height:        256965.576   cps
Start Time:         5.31    min
End Time:           5.88    min
```

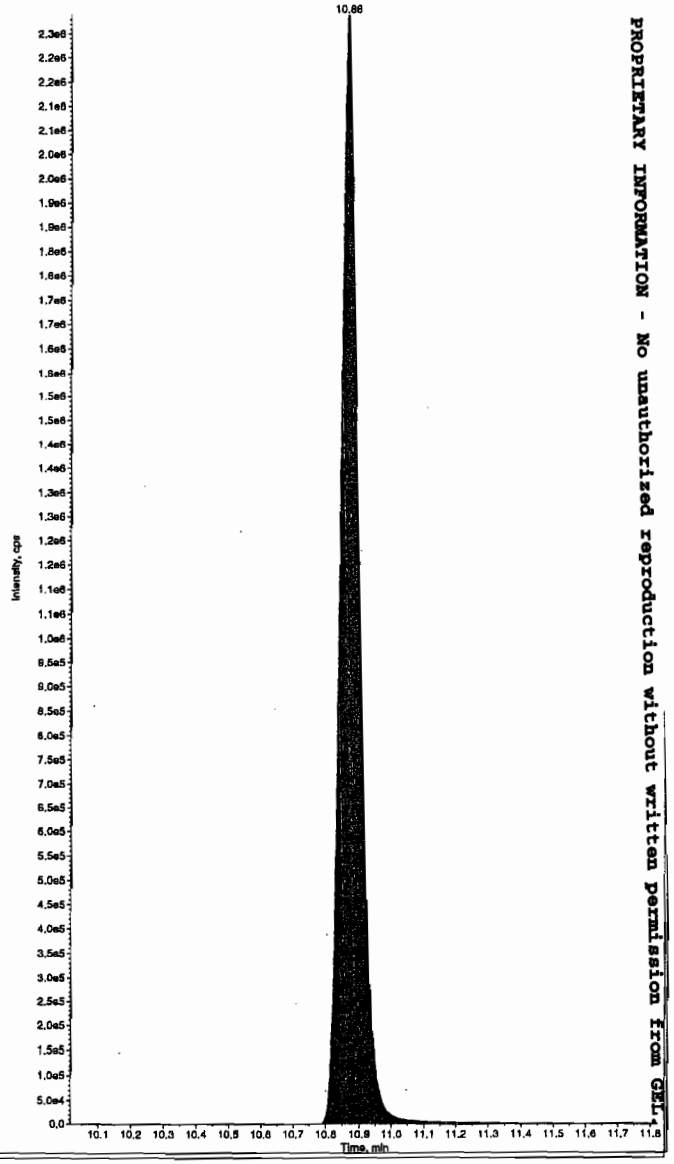


Sample Name: "1202061320" Sample ID: "961033|2|LER" File: "EXS04090046.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     492.     ng/mL
Acq. Date:        4/9/2010
Acq. Time:        7:01:40 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:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9    min
Area:          9.41e+006    counts
Height:        2288896.973  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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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 961016 **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)
1202061319 MB	10-MAR-2010 20:36:00	2	10	5
1202061320 LCS	10-MAR-2010 20:36:00	2	10	5
248514001	10-MAR-2010 20:36:00	2	10	5
248514002	10-MAR-2010 20:36:00	2	10	5
248514003	10-MAR-2010 20:36:00	2	10	5
248517001	10-MAR-2010 20:36:00	2	10	5
248519001	10-MAR-2010 20:36:00	2	10	5
248519002	10-MAR-2010 20:36:00	2	10	5
248519003	10-MAR-2010 20:36:00	2	10	5
248519004	10-MAR-2010 20:36:00	2	10	5
248519005	10-MAR-2010 20:36:00	2	10	5
248519006	10-MAR-2010 20:36:00	2	10	5
248519007	10-MAR-2010 20:36:00	2	10	5
248519008	10-MAR-2010 20:36:00	2	10	5
248519009	10-MAR-2010 20:36:00	2	10	5
248519010	10-MAR-2010 20:36:00	2	10	5
248519011	10-MAR-2010 20:36:00	2	10	5
248526001	10-MAR-2010 20:36:00	2	10	5
1202061321 MS (248526001)	10-MAR-2010 20:36:00	2	10	5
1202061322 MSD (248526001)	10-MAR-2010 20:36:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202061320	8321 Explosives LCS	DXX100225-03	.1	mL
LCS	1202061320	8321 LANL Explosives Mix 10mg/L	UXX100223-02.03	1	mL
MS	1202061321	8321 Explosives LCS	DXX100225-03	.1	mL
MS	1202061321	8321 LANL Explosives Mix 10mg/L	UXX100223-02.03	1	mL
MSD	1202061322	8321 Explosives LCS	DXX100225-03	.1	mL
MSD	1202061322	8321 LANL Explosives Mix 10mg/L	UXX100223-02.03	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	DXP100309-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date:4/15/10
Extr. Injection Volume: 10uL
Sequence Number: 041510
Initial Calibration Date: 041510

Method: 8321A-Modified
Int. Std.: UXX100324-02.3
Mobile Phase Lot#:1301905, 1297752
Standard-Samp Reagent Lot#:1293274, 1299881

Reviewed BY: Hmm
Date: 04/23/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100415-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0415001.wiff	XIBLK01	LER	4/15/2010 10:07			1		USE	B
EXP0415002.wiff	XIBLK01	LER	4/15/2010 10:33			1		USE	B
EXP0415003.wiff	WXXICAL-50	LER	4/15/2010 10:59			1		USE	I
EXP0415004.wiff	WXXICAL-51	LER	4/15/2010 11:25			1		USE	I
EXP0415005.wiff	WXXICAL-52	LER	4/15/2010 11:51			1		USE	I
EXP0415006.wiff	WXXICAL-53	LER	4/15/2010 12:17			1		USE	I
EXP0415007.wiff	WXXICAL-54	LER	4/15/2010 12:43			1		USE	I
EXP0415008.wiff	WXXICAL-55	LER	4/15/2010 13:09			1		USE	I
EXP0415009.wiff	XIBLK02	LER	4/15/2010 13:35			1		USE	B
EXP0415010.wiff	WXXICV	LER	4/15/2010 14:01			1		USE	C
EXP0415011.wiff	XIBLK03	LER	4/15/2010 14:27			1		USE	B
EXP0415012.wiff	WXXCRI	LER	4/15/2010 14:53			1		USE	C
EXP0415013.wiff	1202045807	LER	4/15/2010 15:19	954365	10-1872	2	LANL	USE	S
EXP0415014.wiff	247200001	LER	4/15/2010 15:45	954365	10-1872	20	LANL	USE	S
EXP0415015.wiff	XIBLK04	LER	4/15/2010 16:10			1		USE	B
EXP0415016.wiff	247200002	LER	4/15/2010 16:36	954365	10-1872	20	LANL	USE	S
EXP0415017.wiff	XIBLK05	LER	4/15/2010 17:02			1		USE	B
EXP0415018.wiff	247200006	LER	4/15/2010 17:28	954365	10-1872	20	LANL	USE	S
EXP0415019.wiff	XIBLK06	LER	4/15/2010 17:54			1		USE	B
EXP0415020.wiff	247200007	LER	4/15/2010 18:20	954365	10-1872	2	LANL	USE	S
EXP0415021.wiff	XIBLK07	LER	4/15/2010 18:46			1		USE	B
EXP0415022.wiff	1202055010	LER	4/15/2010 19:12	958251	10-2065	2	LANL	USE	S
EXP0415023.wiff	WXXCCV	LER	4/15/2010 19:38			1		USE	C
EXP0415024.wiff	XIBLK08	LER	4/15/2010 20:04			1		USE	B
EXP0415025.wiff	WXXCRI	LER	4/15/2010 20:30			1		USE	C
EXP0415026.wiff	248048017	LER	4/15/2010 20:56	958251	10-2065	2	LANL	USE	S
EXP0415027.wiff	248048018	LER	4/15/2010 21:22	958251	10-2065	2	LANL	USE	S
EXP0415028.wiff	248048019	LER	4/15/2010 21:47	958251	10-2065	2	LANL	USE	S
EXP0415029.wiff	248048020	LER	4/15/2010 22:13	958251	10-2065	2	LANL	USE	S
EXP0415030.wiff	WXXCCV	LER	4/15/2010 22:39			1		USE	C

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EXP0415031.wiff	XIBLK09	LER	4/15/2010 23:05			1		USE	B
EXP0415032.wiff	WXXCRI	LER	4/15/2010 23:31			1		USE	C
EXP0415033.wiff	1202061204	LER	4/15/2010 23:57	960986	10-2193	2	LANL	USE	S
EXP0415034.wiff	1202061205	LER	4/16/2010 0:23	960986	10-2193	2	LANL	DUSE-RA	S
EXP0415035.wiff	248506001	LER	4/16/2010 0:49	960986	10-2193	2	LANL	USE	S
EXP0415036.wiff	1202061206	LER	4/16/2010 1:15	960986	10-2193	2	LANL	DUSE-RA	S
EXP0415037.wiff	1202061207	LER	4/16/2010 1:41	960986	10-2193	2	LANL	DUSE-RA	S
EXP0415038.wiff	248506002	LER	4/16/2010 2:07	960986	10-2193	2	LANL	USE	S
EXP0415039.wiff	248506003	LER	4/16/2010 2:33	960986	10-2193	2	LANL	USE	S
EXP0415040.wiff	248506004	LER	4/16/2010 2:59	960986	10-2193	2	LANL	USE	S
EXP0415041.wiff	248506005	LER	4/16/2010 3:25	960986	10-2193	2	LANL	USE	S
EXP0415042.wiff	248506006	LER	4/16/2010 3:51	960986	10-2193	2	LANL	USE	S
EXP0415043.wiff	WXXCCV	LER	4/16/2010 4:17			1		USE	C
EXP0415044.wiff	XIBLK10	LER	4/16/2010 4:43			1		USE	B
EXP0415045.wiff	WXXCRI	LER	4/16/2010 5:09			1		USE	C
EXP0415046.wiff	248506007	LER	4/16/2010 5:35	960986	10-2193	2	LANL	USE	S
EXP0415047.wiff	248506008	LER	4/16/2010 6:01	960986	10-2193	2	LANL	USE	S
EXP0415048.wiff	248506009	LER	4/16/2010 6:27	960986	10-2193	2	LANL	USE	S
EXP0415049.wiff	248506010	LER	4/16/2010 6:53	960986	10-2193	2	LANL	USE	S
EXP0415050.wiff	248506011	LER	4/16/2010 7:19	960986	10-2193	2	LANL	USE	S
EXP0415051.wiff	248506012	LER	4/16/2010 7:45	960986	10-2193	2	LANL	USE	S
EXP0415052.wiff	248506013	LER	4/16/2010 8:11	960986	10-2193	2	LANL	USE	S
EXP0415053.wiff	248506014	LER	4/16/2010 8:37	960986	10-2193	2	LANL	USE	S
EXP0415054.wiff	248506015	LER	4/16/2010 9:02	960986	10-2193	2	LANL	USE	S
EXP0415055.wiff	248506016	LER	4/16/2010 9:28	960986	10-2193	2	LANL	USE	S
EXP0415056.wiff	WXXCCV	LER	4/16/2010 9:54			1		USE	C
EXP0415057.wiff	XIBLK11	LER	4/16/2010 10:20			1		USE	B
EXP0415058.wiff	WXXCRI	LER	4/16/2010 10:46			1		USE	C
EXP0415059.wiff	248506017	LER	4/16/2010 11:13	960986	10-2193	2	LANL	USE	S
EXP0415060.wiff	248506018	LER	4/16/2010 11:39	960986	10-2193	2	LANL	USE	S
EXP0415061.wiff	248506019	LER	4/16/2010 12:05	960986	10-2193	2	LANL	USE	S
EXP0415062.wiff	248506020	LER	4/16/2010 12:31	960986	10-2193	2	LANL	USE	S
EXP0415063.wiff	WXXCCV	LER	4/16/2010 12:57			1		USE	C
EXP0415064.wiff	XIBLK12	LER	4/16/2010 13:23			1		USE	B
EXP0415065.wiff	WXXCRI	LER	4/16/2010 13:49			1		USE	C
EXP0415066.wiff	1202061319	LER	4/16/2010 14:15	961033	VARIOUS	2	LANL	USE	S
EXP0415067.wiff	1202061320	LER	4/16/2010 14:41	961033	VARIOUS	2	LANL	USE	S

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EXP0415068.wiff	248514001	LER	4/16/2010 15:06	961033	10-2196	2	LANL	USE	S
EXP0415069.wiff	248514002	LER	4/16/2010 15:32	961033	10-2196	2	LANL	USE	S
EXP0415070.wiff	248514003	LER	4/16/2010 15:58	961033	10-2196	2	LANL	USE	S
EXP0415071.wiff	248517001	LER	4/16/2010 16:24	961033	10-2198	2	LANL	USE	S
EXP0415072.wiff	248519001	LER	4/16/2010 16:50	961033	10-2199	2	LANL	USE	S
EXP0415073.wiff	248519002	LER	4/16/2010 17:17	961033	10-2199	2	LANL	USE	S
EXP0415074.wiff	248519003	LER	4/16/2010 17:43	961033	10-2199	2	LANL	USE	S
EXP0415075.wiff	248519004	LER	4/16/2010 18:08	961033	10-2199	2	LANL	USE	S
EXP0415076.wiff	WXXCCV	LER	4/16/2010 18:34			1		USE	C
EXP0415077.wiff	XIBLK13	LER	4/16/2010 19:00			1		USE	B
EXP0415078.wiff	WXXCRI	LER	4/16/2010 19:26			1		USE	C
EXP0415079.wiff	248519005	LER	4/16/2010 19:52	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415080.wiff	248519006	LER	4/16/2010 20:18	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415081.wiff	248519007	LER	4/16/2010 20:44	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415082.wiff	248519008	LER	4/16/2010 21:10	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415083.wiff	248519009	LER	4/16/2010 21:36	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415084.wiff	248519010	LER	4/16/2010 22:02	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415085.wiff	248519011	LER	4/16/2010 22:28	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415086.wiff	248526001	LER	4/16/2010 22:54	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415087.wiff	1202061321	LER	4/16/2010 23:20	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415088.wiff	1202061322	LER	4/16/2010 23:46	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415089.wiff	WXXCCV	LER	4/17/2010 0:12			1		DUSE	C
EXP0415090.wiff	XIBLK14	LER	4/17/2010 0:38			1		DUSE	B
EXP0415091.wiff	WXXCRI	LER	4/17/2010 1:04			1		DUSE	C
EXP0415092.wiff	248048006	LER	4/17/2010 1:30	958251	10-2065	2	LANL	DUSE-RA	S
EXP0415093.wiff	248048011	LER	4/17/2010 1:56	958251	10-2065	20	LANL	DUSE-RA	S
EXP0415094.wiff	XIBLK15	LER	4/17/2010 2:22			1		DUSE	B
EXP0415095.wiff	248048012	LER	4/17/2010 2:48	958251	10-2065	2	LANL	DUSE-RA	S
EXP0415096.wiff	WXXCCV	LER	4/17/2010 3:14			1		DUSE	C
EXP0415097.wiff	XIBLK16	LER	4/17/2010 3:40			1		DUSE	B
EXP0415098.wiff	WXXCRI	LER	4/17/2010 4:06			1		DUSE	C
EXP0415099.wiff	1202061439	LER	4/17/2010 4:32	961091	VARIOUS	2	LANL	DUSE-RA	S
EXP0415100.wiff	1202061440	LER	4/17/2010 4:58	961091	VARIOUS	2	LANL	DUSE-RA	S
EXP0415101.wiff	248542003	LER	4/17/2010 5:24	961091	10-2225	2	LANL	DUSE-RA	S
EXP0415102.wiff	248546004	LER	4/17/2010 5:50	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415103.wiff	1202061441	LER	4/17/2010 6:16	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415104.wiff	1202061442	LER	4/17/2010 6:42	961091	10-2219	2	LANL	DUSE-RA	S

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EXP0415105.wiff	248546009	LER	4/17/2010 7:08	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415106.wiff	WXXCCV	LER	4/17/2010 7:34			1		USE	C
EXP0415107.wiff	XIBLK17	LER	4/17/2010 8:00			1		USE	B
EXP0415108.wiff	WXXCRI	LER	4/17/2010 8:26			1		USE	C
EXP0415109.wiff	1202057288	LER	4/17/2010 8:52	959257	10-2128	2	LANL	USE	S
EXP0415110.wiff	1202057289	LER	4/17/2010 9:18	959257	10-2128	2	LANL	USE	S
EXP0415111.wiff	248232001	LER	4/17/2010 9:44	959257	10-2128	2	LANL	USE	S
EXP0415112.wiff	1202057290	LER	4/17/2010 10:10	959257	10-2128	2	LANL	USE	S
EXP0415113.wiff	1202057291	LER	4/17/2010 10:36	959257	10-2128	2	LANL	USE	S
EXP0415114.wiff	248232002	LER	4/17/2010 11:01	959257	10-2128	2	LANL	USE	S
EXP0415115.wiff	248232003	LER	4/17/2010 11:27	959257	10-2128	2	LANL	USE	S
EXP0415116.wiff	248232004	LER	4/17/2010 11:53	959257	10-2128	2	LANL	USE	S
EXP0415117.wiff	248232005	LER	4/17/2010 12:19	959257	10-2128	2	LANL	USE	S
EXP0415118.wiff	248232006	LER	4/17/2010 12:45	959257	10-2128	2	LANL	USE	S
EXP0415119.wiff	WXXCCV	LER	4/17/2010 13:11			1		USE	C
EXP0415120.wiff	XIBLK18	LER	4/17/2010 13:37			1		USE	B
EXP0415121.wiff	WXXCRI	LER	4/17/2010 14:03			1		USE	C
EXP0415122.wiff	248232007	LER	4/17/2010 14:29	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415123.wiff	248232008	LER	4/17/2010 14:55	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415124.wiff	248232009	LER	4/17/2010 15:21	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415125.wiff	248232010	LER	4/17/2010 15:47	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415126.wiff	248232011	LER	4/17/2010 16:13	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415127.wiff	248232012	LER	4/17/2010 16:39	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415128.wiff	248232013	LER	4/17/2010 17:05	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415129.wiff	248232014	LER	4/17/2010 17:31	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415130.wiff	248232015	LER	4/17/2010 17:57	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415131.wiff	248232016	LER	4/17/2010 18:23	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415132.wiff	WXXCCV	LER	4/17/2010 18:49			1		DUSE	C
EXP0415133.wiff	XIBLK19	LER	4/17/2010 19:15			1		DUSE	B
EXP0415134.wiff	WXXCRI	LER	4/17/2010 19:40			1		DUSE	C
EXP0415135.wiff	248232017	LER	4/17/2010 20:07	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415136.wiff	248232018	LER	4/17/2010 20:33	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415137.wiff	248232019	LER	4/17/2010 20:59	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415138.wiff	248232020	LER	4/17/2010 21:24	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415139.wiff	WXXCCV	LER	4/17/2010 21:50			1		DUSE	C
EXP0415140.wiff	XIBLK20	LER	4/17/2010 22:16			1		DUSE	B
EXP0415141.wiff	WXXCRI	LER	4/17/2010 22:42			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 04/09/10
Extr. Injection Volume: 10uL
Sequence Number: 040910exs
Initial Calibration Date: 040910

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1269686, 1293224
Standard-Samp Reagent Lot# :1292884, 1284736

Reviewed By: [illegible]
Date: 04/12/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100409-26

2°

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04090001.wiff	XIBLK01	LER	4/9/2010 7:14			1		USE	B
EXS04090002.wiff	XIBLK01	LER	4/9/2010 7:30			1		USE	B
EXS04090003.wiff	WXXICAL-19	LER	4/9/2010 7:46			1		USE	I
EXS04090004.wiff	WXXICAL-20	LER	4/9/2010 8:01			1		USE	I
EXS04090005.wiff	WXXICAL-21	LER	4/9/2010 8:17			1		USE	I
EXS04090006.wiff	WXXICAL-22	LER	4/9/2010 8:33			1		USE	I
EXS04090007.wiff	WXXICAL-23	LER	4/9/2010 8:49			1		USE	I
EXS04090008.wiff	WXXICAL-24	LER	4/9/2010 9:04			1		USE	I
EXS04090009.wiff	WXXICAL-25	LER	4/9/2010 9:20			1		USE	I
EXS04090010.wiff	XIBLK02	LER	4/9/2010 9:36			1		USE	B
EXS04090011.wiff	WXXICV	LER	4/9/2010 9:51			1		USE	C
EXS04090012.wiff	XIBLK03	LER	4/9/2010 10:07			1		USE	B
EXS04090013.wiff	WXXCRI	LER	4/9/2010 10:23			1		USE	C
EXS04090014.wiff	1202061204	LER	4/9/2010 10:39	960986	10-2193	2	LANL	USE	S
EXS04090015.wiff	1202061205	LER	4/9/2010 10:54	960986	10-2193	2	LANL	USE	S
EXS04090016.wiff	248506001	LER	4/9/2010 11:10	960986	10-2193	2	LANL	USE	S
EXS04090017.wiff	1202061206	LER	4/9/2010 11:26	960986	10-2193	2	LANL	USE	S
EXS04090018.wiff	1202061207	LER	4/9/2010 11:41	960986	10-2193	2	LANL	USE	S
EXS04090019.wiff	248506002	LER	4/9/2010 11:57	960986	10-2193	2	LANL	USE	S
EXS04090020.wiff	248506003	LER	4/9/2010 12:13	960986	10-2193	2	LANL	USE	S
EXS04090021.wiff	248506004	LER	4/9/2010 12:29	960986	10-2193	2	LANL	USE	S
EXS04090022.wiff	248506005	LER	4/9/2010 12:44	960986	10-2193	2	LANL	USE	S
EXS04090023.wiff	248506006	LER	4/9/2010 13:00	960986	10-2193	2	LANL	USE	S
EXS04090024.wiff	WXXCCV	LER	4/9/2010 13:16			1		USE	C
EXS04090025.wiff	XIBLK04	LER	4/9/2010 13:31			1		USE	B
EXS04090026.wiff	WXXCRI	LER	4/9/2010 13:47			1		USE	C
EXS04090027.wiff	248506007	LER	4/9/2010 14:03	960986	10-2193	2	LANL	USE	S
EXS04090028.wiff	248506008	LER	4/9/2010 14:18	960986	10-2193	2	LANL	USE	S
EXS04090029.wiff	248506009	LER	4/9/2010 14:34	960986	10-2193	2	LANL	USE	S
EXS04090030.wiff	248506010	LER	4/9/2010 14:50	960986	10-2193	2	LANL	USE	S

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EXS04090031.wiff	248506011	LER	4/9/2010 15:06	960986	10-2193	2	LANL	USE	S
EXS04090032.wiff	248506012	LER	4/9/2010 15:21	960986	10-2193	2	LANL	USE	S
EXS04090033.wiff	248506013	LER	4/9/2010 15:37	960986	10-2193	2	LANL	USE	S
EXS04090034.wiff	248506014	LER	4/9/2010 15:53	960986	10-2193	2	LANL	USE	S
EXS04090035.wiff	248506015	LER	4/9/2010 16:08	960986	10-2193	2	LANL	USE	S
EXS04090036.wiff	248506016	LER	4/9/2010 16:24	960986	10-2193	2	LANL	USE	S
EXS04090037.wiff	WXXCCV	LER	4/9/2010 16:40			1		USE	C
EXS04090038.wiff	XIBLK05	LER	4/9/2010 16:56			1		USE	B
EXS04090039.wiff	WXXCRI	LER	4/9/2010 17:11			1		USE	C
EXS04090040.wiff	248506017	LER	4/9/2010 17:27	960986	10-2193	2	LANL	USE	S
EXS04090041.wiff	248506018	LER	4/9/2010 17:43	960986	10-2193	2	LANL	USE	S
EXS04090042.wiff	248506019	LER	4/9/2010 17:58	960986	10-2193	2	LANL	USE	S
EXS04090043.wiff	248506020	LER	4/9/2010 18:14	960986	10-2193	2	LANL	USE	S
EXS04090044.wiff	XIBLK06	LER	4/9/2010 18:30			1		USE	B
EXS04090045.wiff	1202061319	LER	4/9/2010 18:45	961033	VARIOUS	2	LANL	USE	S
EXS04090046.wiff	1202061320	LER	4/9/2010 19:01	961033	VARIOUS	2	LANL	USE	S
EXS04090047.wiff	248514001	LER	4/9/2010 19:17	961033	10-2196	2	LANL	USE	S
EXS04090048.wiff	248514002	LER	4/9/2010 19:33	961033	10-2196	2	LANL	USE	S
EXS04090049.wiff	248514003	LER	4/9/2010 19:48	961033	10-2196	2	LANL	USE	S
EXS04090050.wiff	WXXCCV	LER	4/9/2010 20:04			1		USE	C
EXS04090051.wiff	XIBLK07	LER	4/9/2010 20:20			1		USE	B
EXS04090052.wiff	WXXCRI	LER	4/9/2010 20:35			1		USE	C
EXS04090053.wiff	248517001	LER	4/9/2010 20:51	961033	10-2198	2	LANL	USE	S
EXS04090054.wiff	248519001	LER	4/9/2010 21:07	961033	10-2199	2	LANL	USE	S
EXS04090055.wiff	248519002	LER	4/9/2010 21:23	961033	10-2199	2	LANL	USE	S
EXS04090056.wiff	248519003	LER	4/9/2010 21:38	961033	10-2199	2	LANL	USE	S
EXS04090057.wiff	248519004	LER	4/9/2010 21:54	961033	10-2199	2	LANL	USE	S
EXS04090058.wiff	248519005	LER	4/9/2010 22:10	961033	10-2199	2	LANL	USE	S
EXS04090059.wiff	248519006	LER	4/9/2010 22:25	961033	10-2199	2	LANL	USE	S
EXS04090060.wiff	248519007	LER	4/9/2010 22:41	961033	10-2199	2	LANL	USE	S
EXS04090061.wiff	248519008	LER	4/9/2010 22:57	961033	10-2199	2	LANL	USE	S
EXS04090062.wiff	248519009	LER	4/9/2010 23:12	961033	10-2199	2	LANL	USE	S
EXS04090063.wiff	WXXCCV	LER	4/9/2010 23:28			1		USE	C
EXS04090064.wiff	XIBLK08	LER	4/9/2010 23:44			1		USE	B
EXS04090065.wiff	WXXCRI	LER	4/10/2010 0:00			1		USE	C
EXS04090066.wiff	248519010	LER	4/10/2010 0:15	961033	10-2199	2	LANL	USE	S
EXS04090067.wiff	248519011	LER	4/10/2010 0:31	961033	10-2199	2	LANL	USE	S

EXS04090068.wiff	248526001	LER	4/10/2010 0:47	961033	10-2202	2	LANL	USE	S
EXS04090069.wiff	1202061321	LER	4/10/2010 1:02	961033	10-2202	2	LANL	USE	S
EXS04090070.wiff	1202061322	LER	4/10/2010 1:18	961033	10-2202	2	LANL	USE	S
EXS04090071.wiff	WXXCCV	LER	4/10/2010 1:34			1		USE	C
EXS04090072.wiff	XIBLK09	LER	4/10/2010 1:49			1		USE	B
EXS04090073.wiff	WXXCRI	LER	4/10/2010 2:05			1		USE	C

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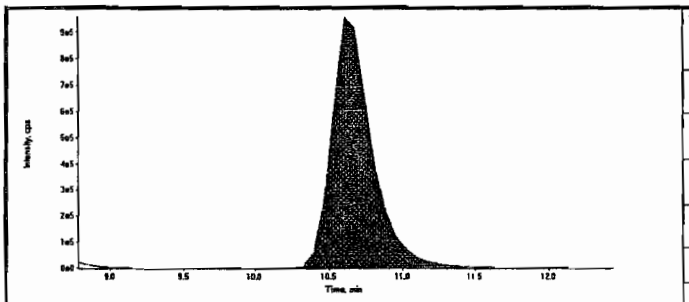
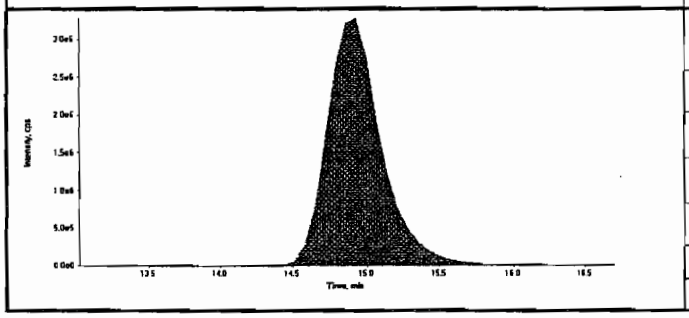
GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM
LCMSMS#3

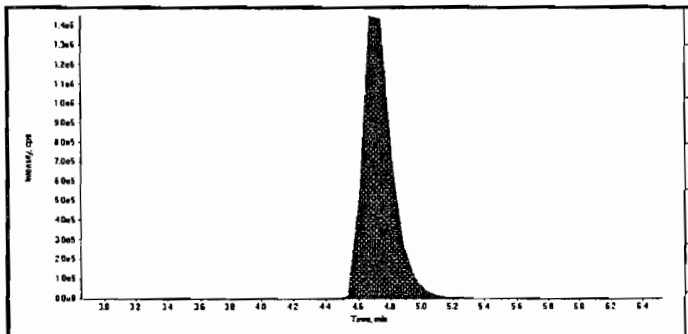
Data File	EXP0420021.wiff	**Acquisition Date**	4/20/2010 10:57:42 PM
Sample Name	1202061321	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	042010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



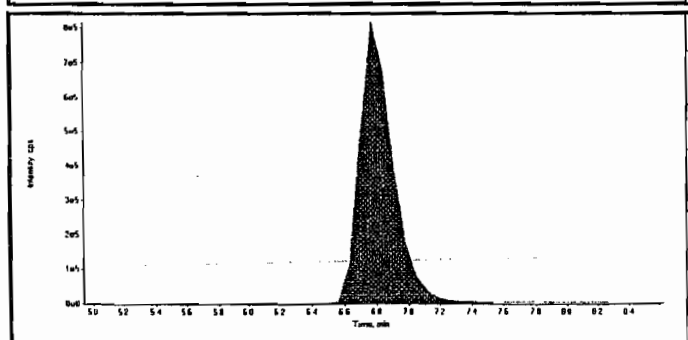
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	18400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	84100000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.91e+007
Manual Modification	No
Amount:	482. (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.20e+007
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	N/A

Lan 4/29/10 [illegible] 04/29/10

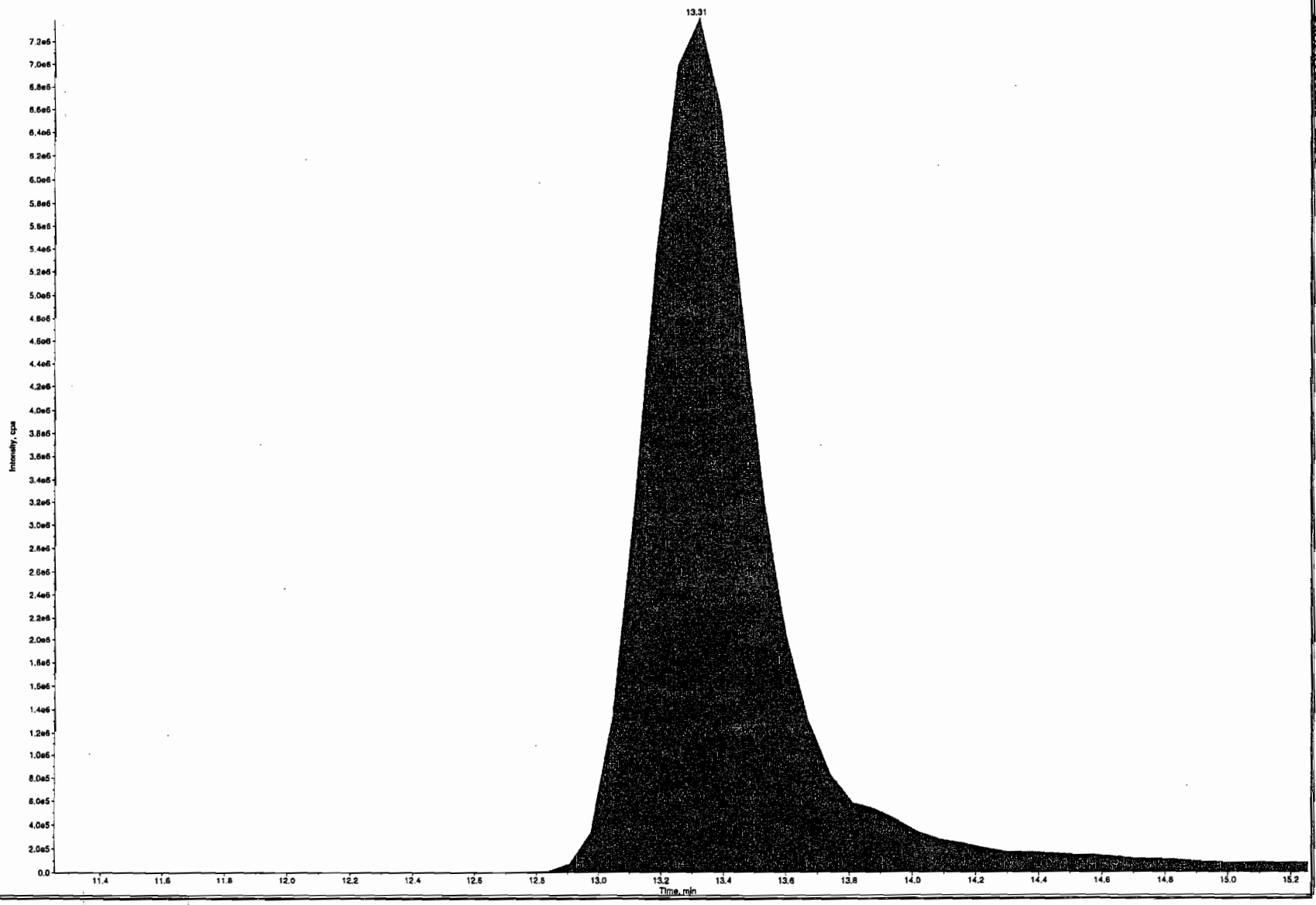
Before Scan 4/28/10

Sample Name: "1202061321" Sample ID: "961033[2]LER" File: "EXP0420021.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.6 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 571. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 13.3 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.3 min
Area: 2.05e+008 counts
Height: 7.38e+006 cps
Start Time: 12.6 min
End Time: 19.3 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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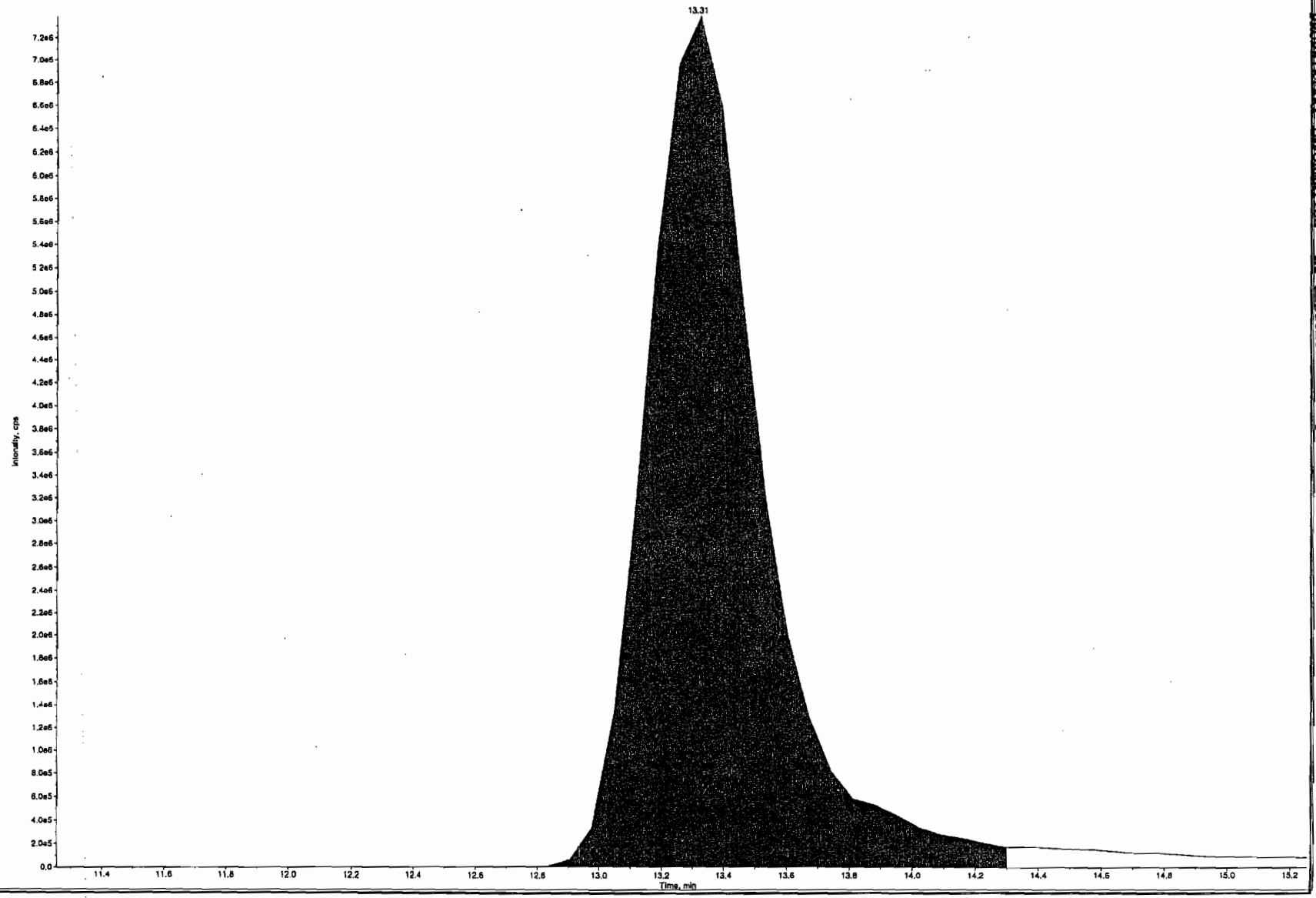
after LCM 4/28/10

Sample Name: "1202061321" Sample ID: "561033[2]LER" File: "EXP0420021.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 519. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:42 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 11.3 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 13.3 min
Area: 1.93e+008 counts
Height: 7.40e+006 cps
Start Time: 12.8 min
End Time: 14.3 min



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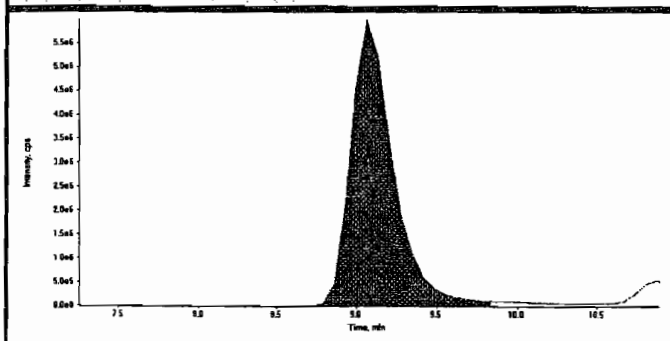
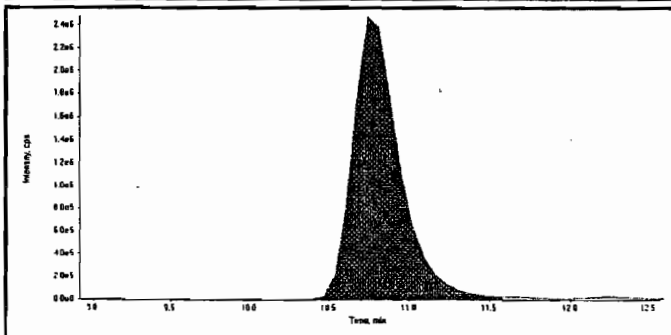
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM
LCMSMS#3

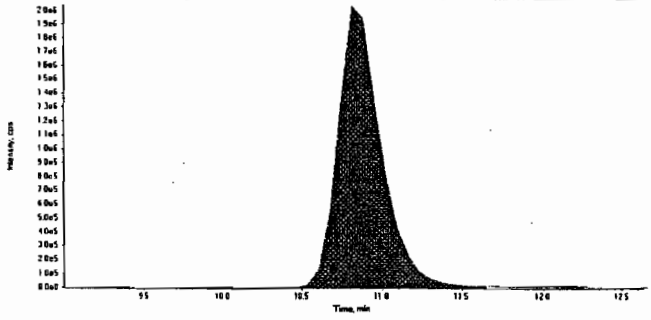
Data File	EXP0420021.wiff	Acquisition Date	4/20/2010 10:57:42 PM
Sample Name	1202061321	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



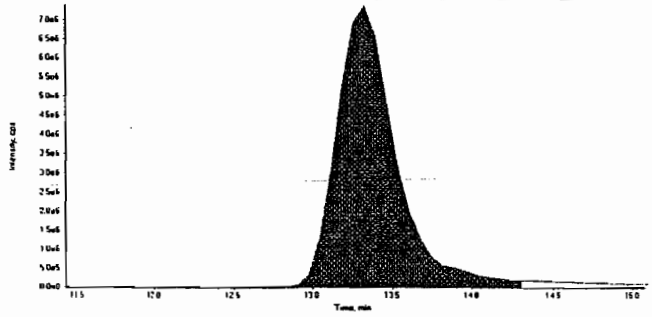
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.07
Actual RT:	9.07
Area Counts:	1.12e+008
Manual Modification	No
Amount:	552. (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	5.08e+007
Manual Modification	No
Amount:	535. (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	3.84e+007
Manual Modification	No
Amount:	501. (ng/mL)
% Accuracy:	N/A



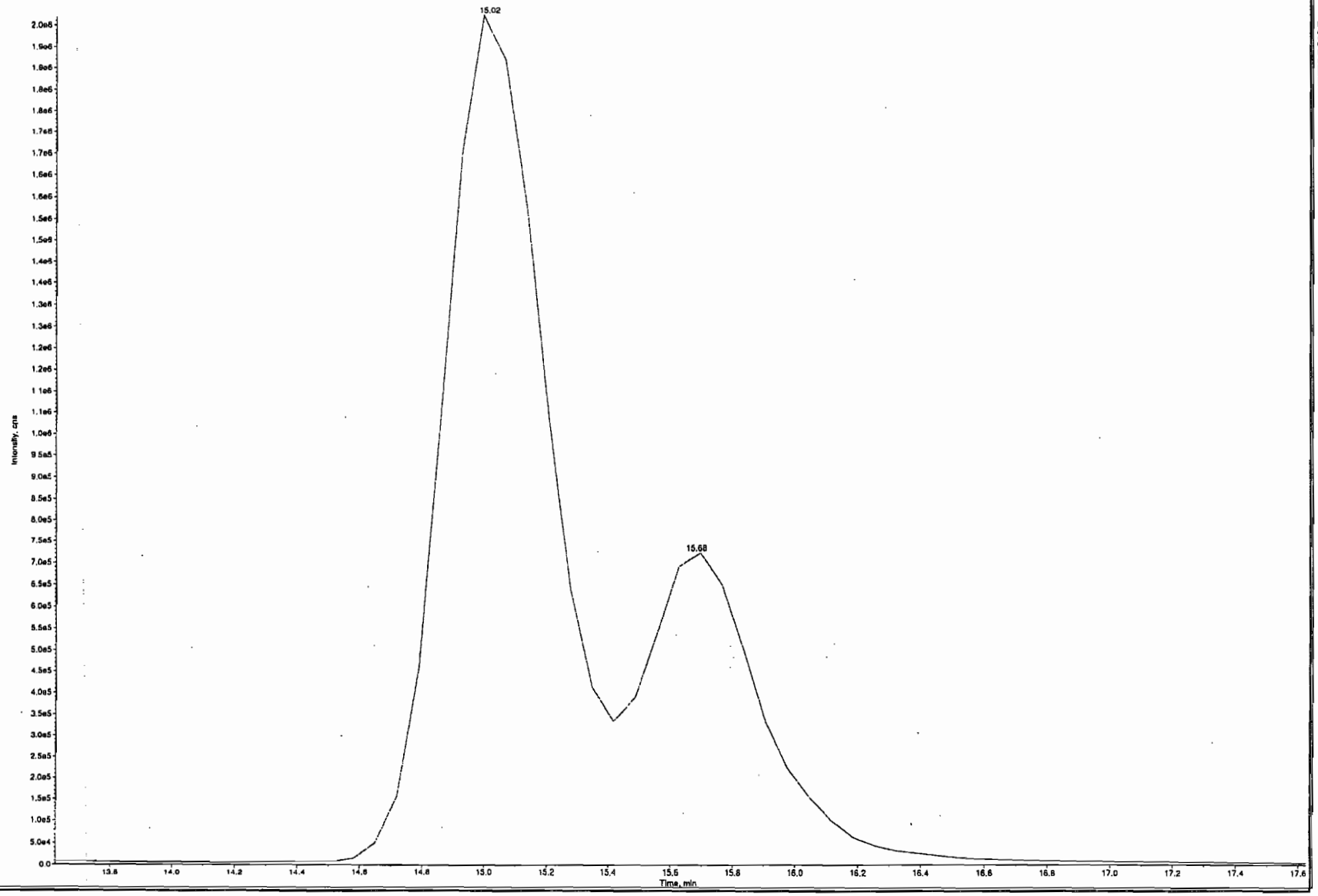
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	1.93e+008
Manual Modification	Yes
Amount:	519. (ng/mL)
% Accuracy:	N/A

Before Scan 4/28/10

Sample Name: "1202061321" Sample ID: "961033[2]LER" File: "EXP0420021.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:42 PM

Modified: No



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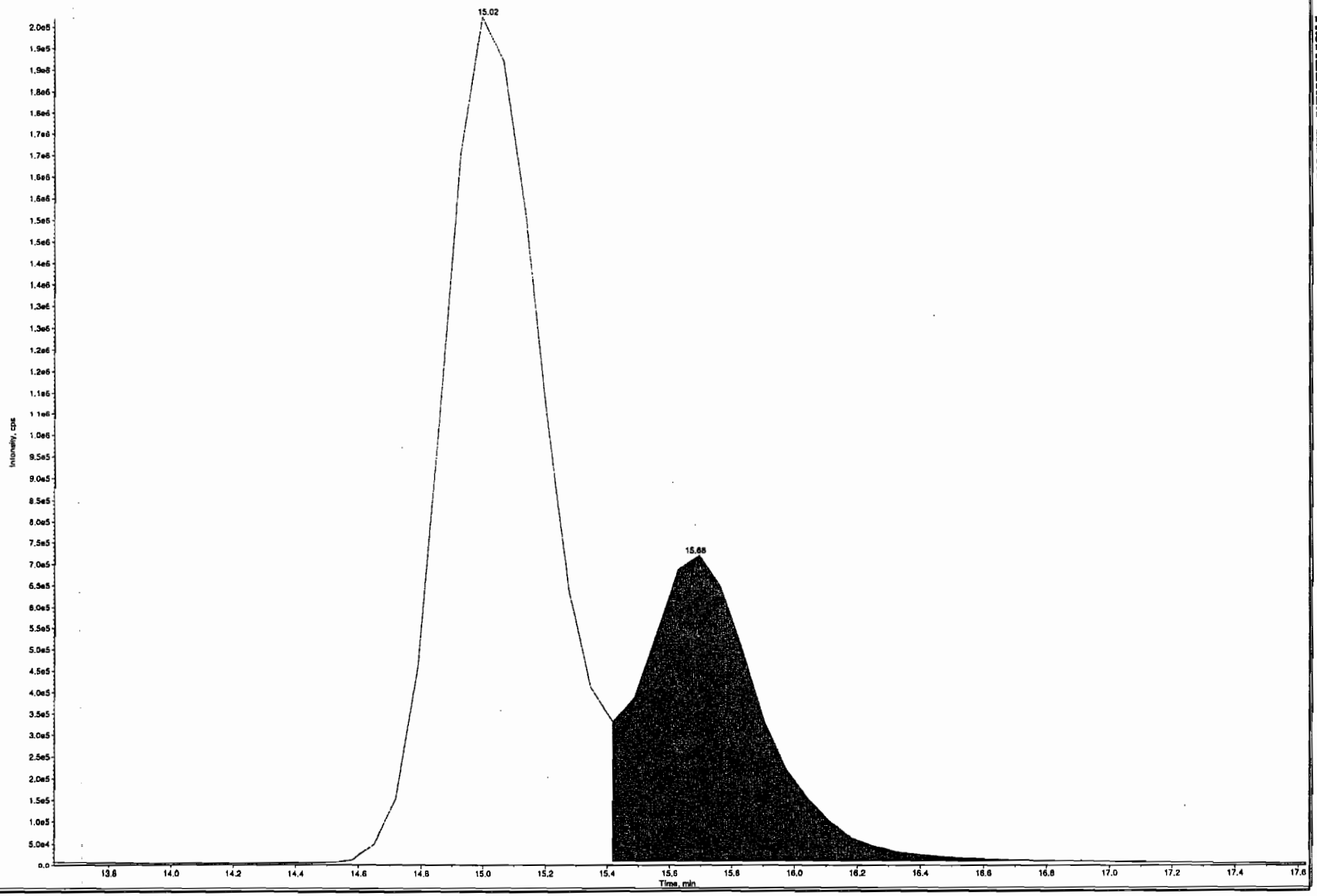
After Scan 4/28/10

Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXP0420021.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 550. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:42 PM

Modified: Yes
RT Window: 10.0 sec
Expected RT: 15.6 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 15.7 min
Area: 1.90e+007 counts
Height: 7.13e+005 cps
Start Time: 15.4 min
End Time: 16.5 min



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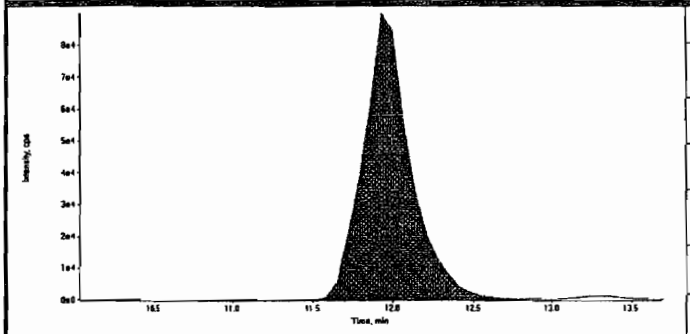
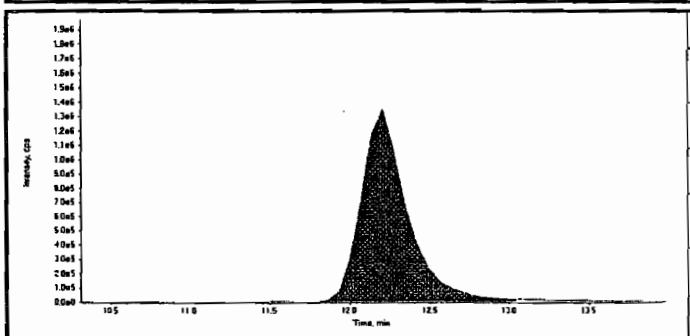
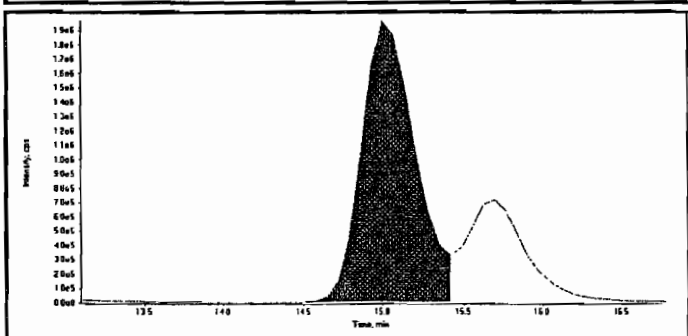
Data File	EXP0420021.wiff	Acquisition Date	4/20/2010 10:57:42 PM
Sample Name	1202061321	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



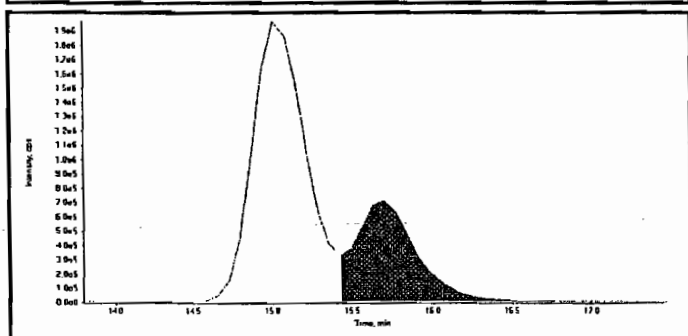
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	1.85e+006
Manual Modification	No
Amount:	451. (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.68e+007
Manual Modification	No
Amount:	237. (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	15.0
Area Counts:	4.61e+007
Manual Modification	No
Amount:	493. (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	1.90e+007
Manual Modification	Yes
Amount:	550. (ng/mL)
% Accuracy:	N/A

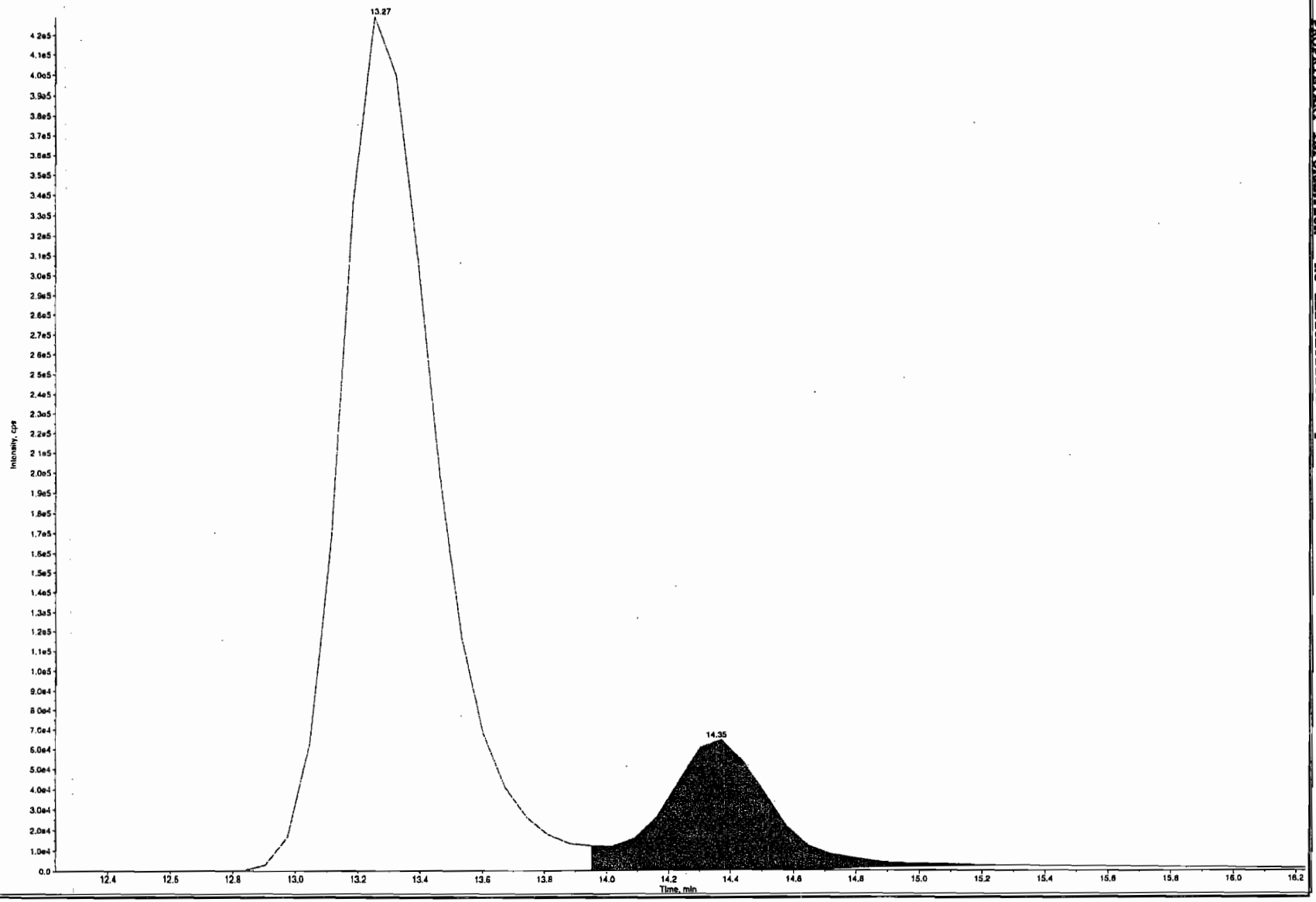
Before Dan 4/12/10

Sample Name: "1202061321" Sample ID: "86103322LER" File: "EXP0420021.wif"
Peak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 670. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.2 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.4 min
Area: 1.74e+006 counts
Height: 6.68e+004 cps
Start Time: 14.0 min
End Time: 15.1 min



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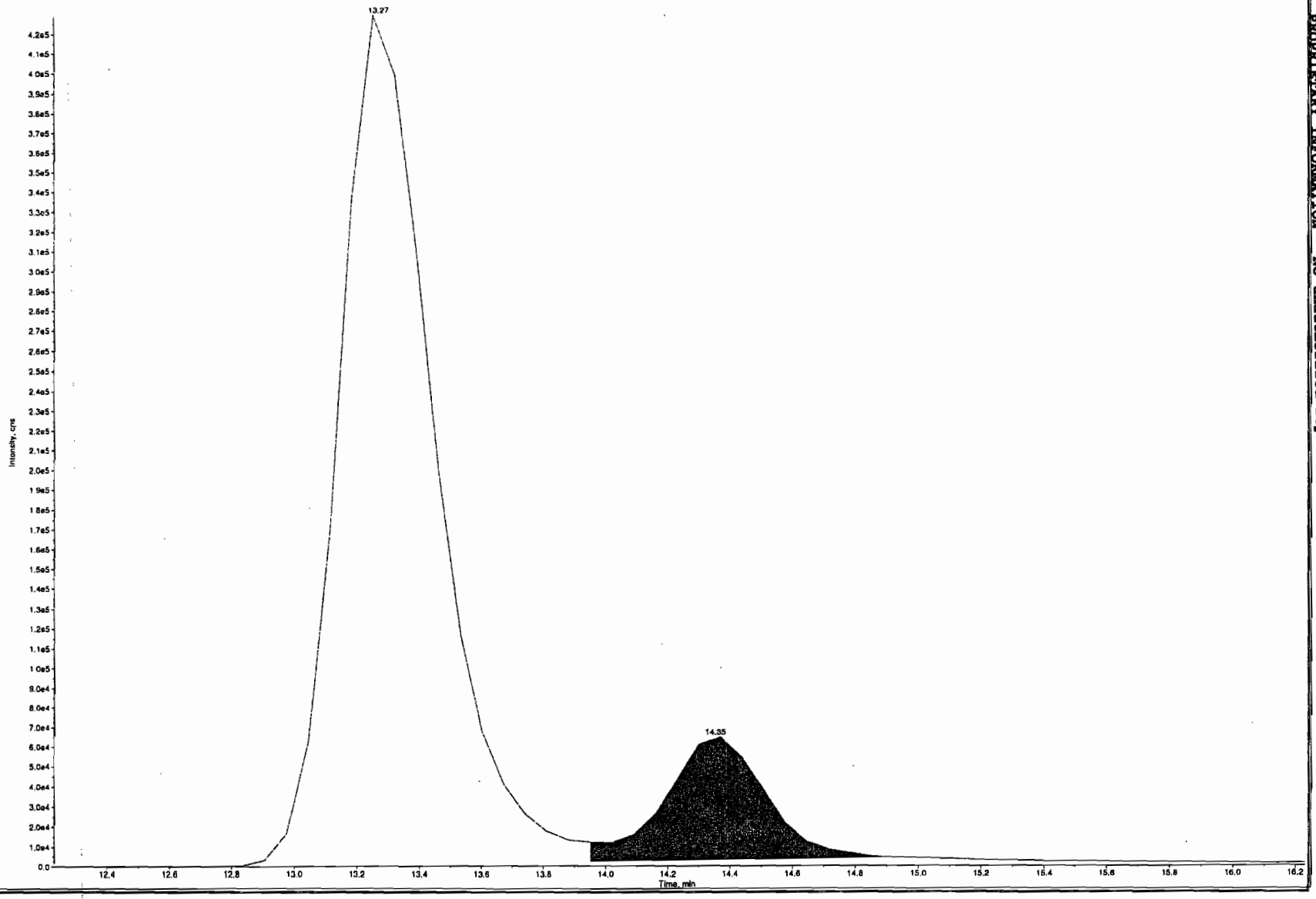
after Jan 4/28/10

Sample Name: "1202061331" Sample ID "961033[2]LER" File: "EXP0420021.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 536. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:42 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 14.2 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.4 min
Area: 1.58e+006 counts
Height: 6.16e+004 cps
Start Time: 14.0 min
End Time: 14.9 min



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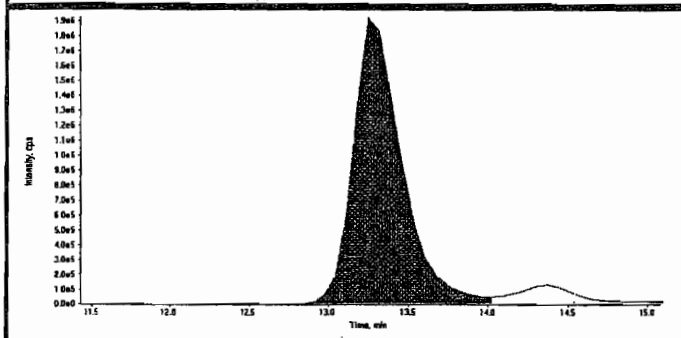
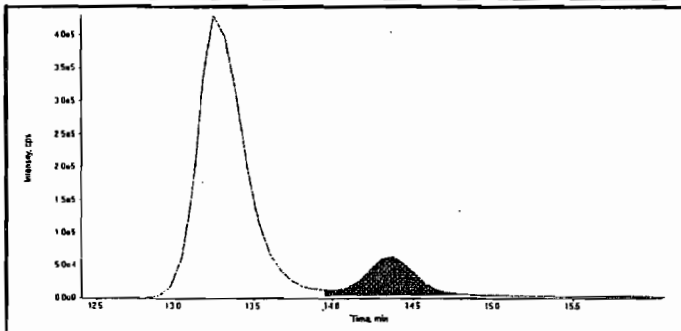
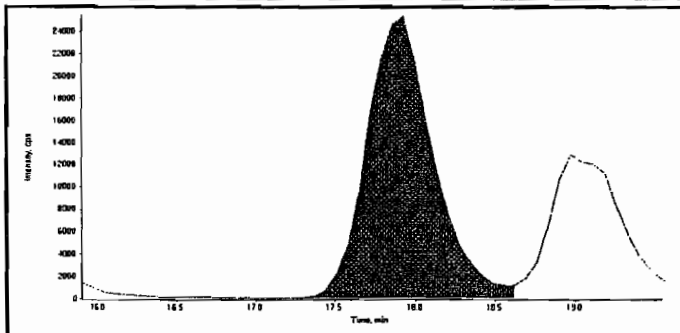
Data File	EXP0420021.wiff	**Acquisition Date**	4/20/2010 10:57:42 PM
Sample Name	1202061321	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	042010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



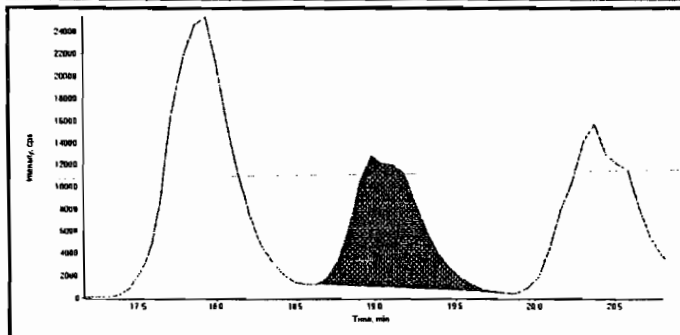
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	4.10e+007
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.4
Area Counts:	1.39e+006
Manual Modification	Yes
Amount:	536. (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	17.9
Area Counts:	7.30e+005
Manual Modification	No
Amount:	471. (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	3.48e+005
Manual Modification	No
Amount:	436. (ng/mL)
% Accuracy:	N/A

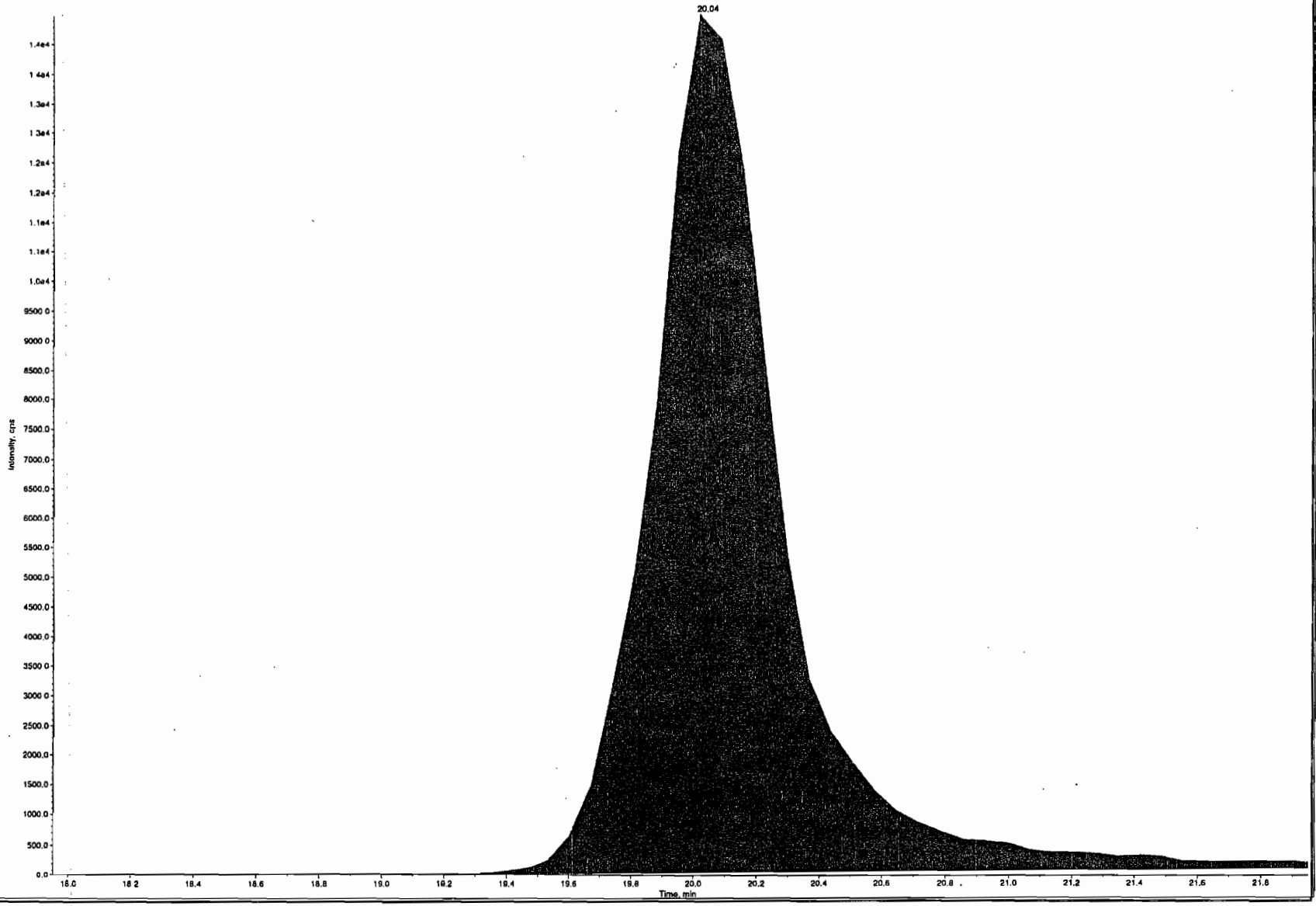
Before Scan 4/29/10

Sample Name: "1202061321" Sample ID: "961033(2)LER" File: "EXP0420021.wiff"
Peak Name: "PETN" Mass(es): "351.1/62.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 552. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 20.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 20.0 min
Area: 4.22e+005 counts
Height: 1.43e+004 cps
Start Time: 19.2 min
End Time: 22.6 min



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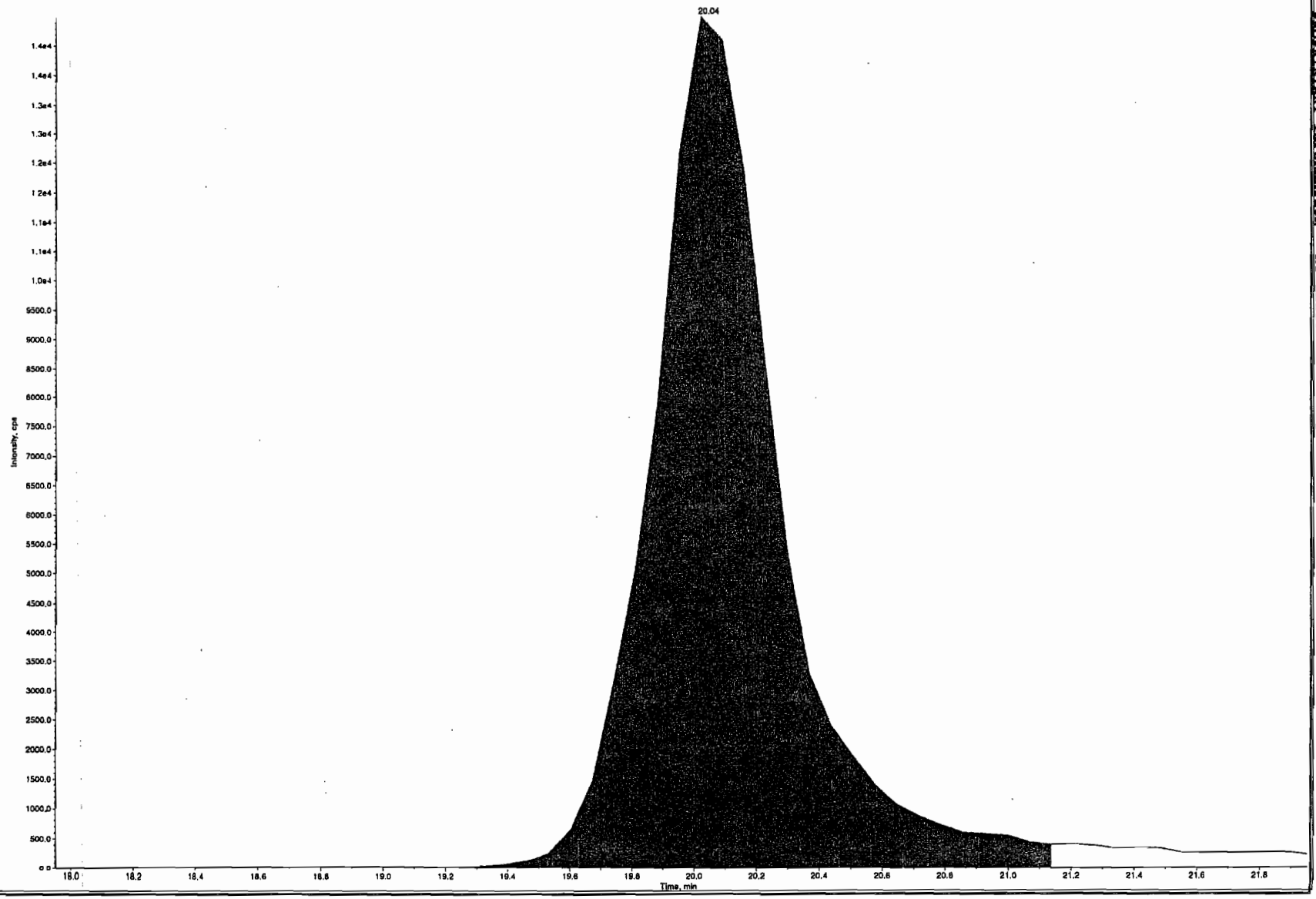
after Lcx 4/29/10

Sample Name: "1202061321" Sample ID: "961033[2]LER" File: "EXP0420021.wiff"
Peak Name: "PETN" Mass(es): "361 1/62.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 540. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 10:57:42 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 20.0 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 20.0 min
Area: 4.11e+005 counts
Height: 1.46e+004 cps
Start Time: 19.3 min
End Time: 21.1 min



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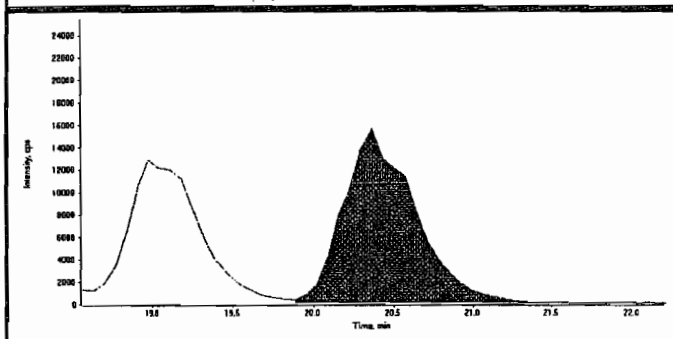
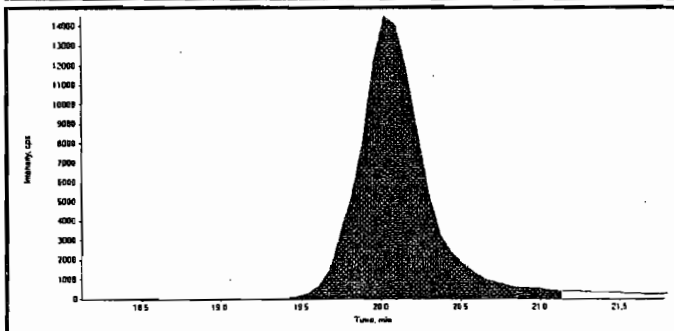
Data File	EXP0420021.wiff	**Acquisition Date**	4/20/2010 10:57:42 PM
Sample Name	1202061321	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	042010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	4.85e+005
Manual Modification	No
Amount:	421. (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	4.13e+005
Manual Modification	Yes
Amount:	540. (ng/mL)
% Accuracy:	N/A

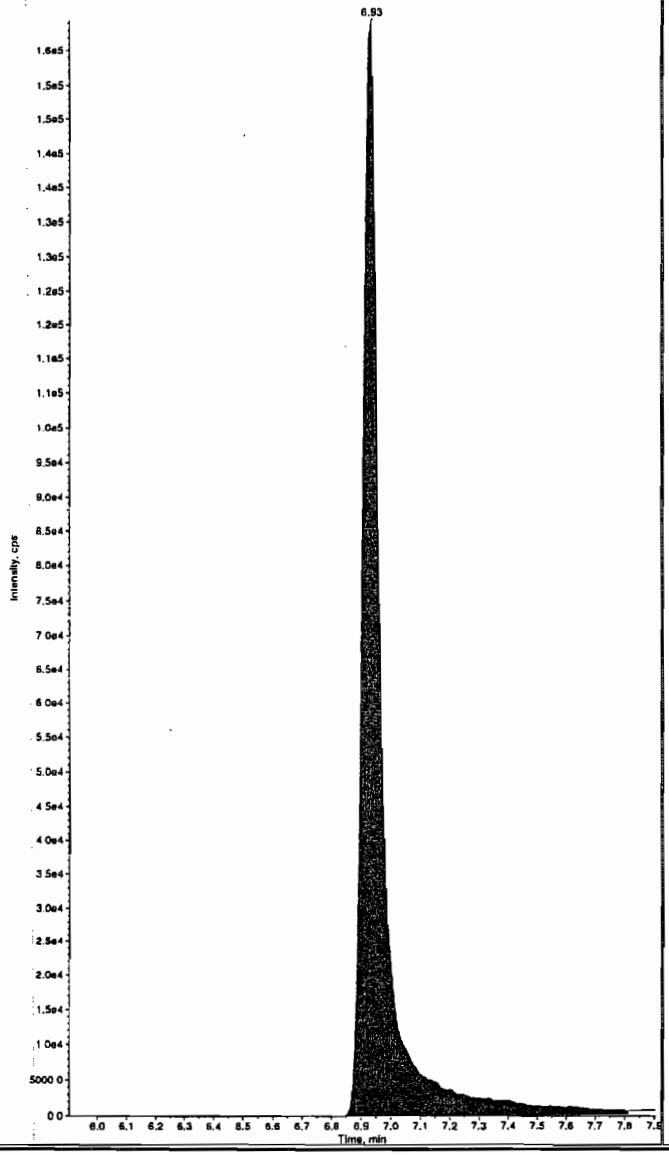
Before LCM 4/12/10

Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.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: 804. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.93 min
Area: 7.71e+005 counts
Height: 159381.454 cps
Start Time: 6.83 min
End Time: 7.81 min

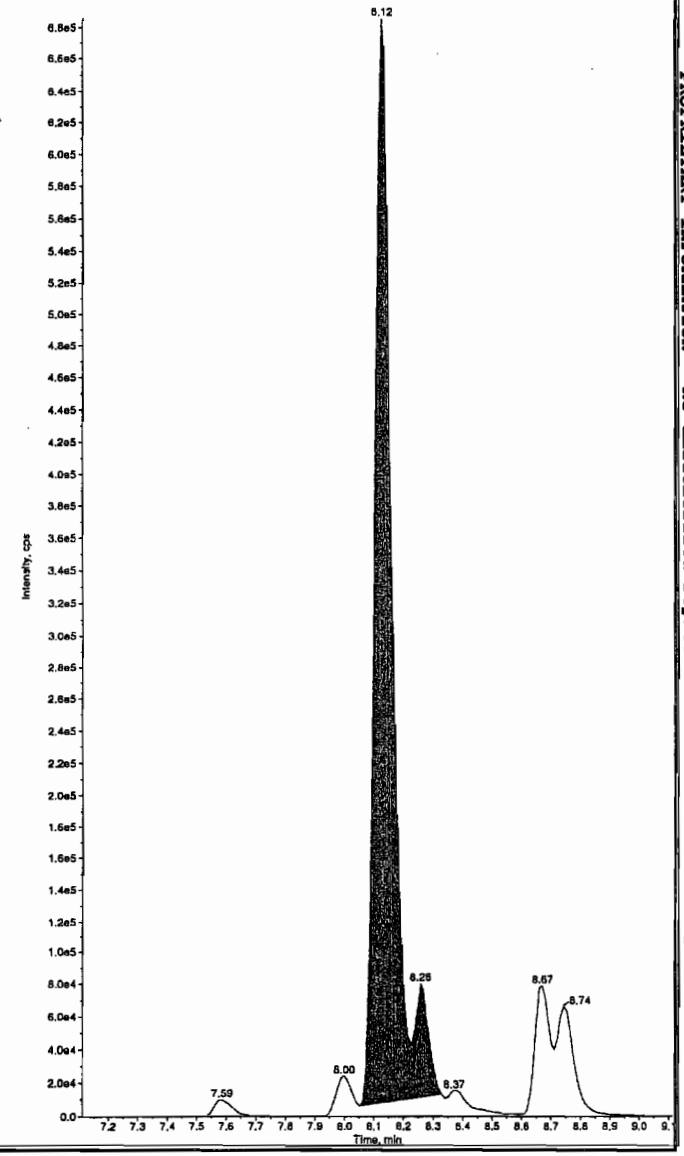


Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 427. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 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: 8.11 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.05e+006 counts
Height: 678054.382 cps
Start Time: 8.05 min
End Time: 8.33 min



Hmm 04/12/10

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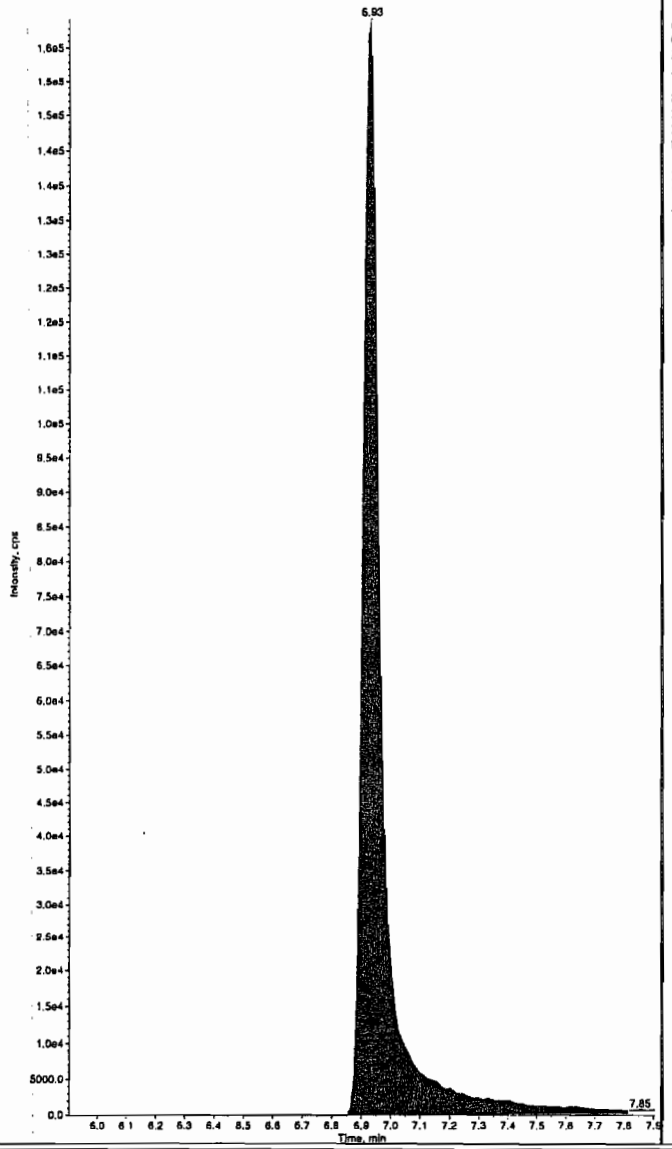
after KCL 4/12/10

Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.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: 804. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.93 min
Area: 7.71e+005 counts
Height: 159381.454 cps
Start Time: 6.83 min
End Time: 7.81 min

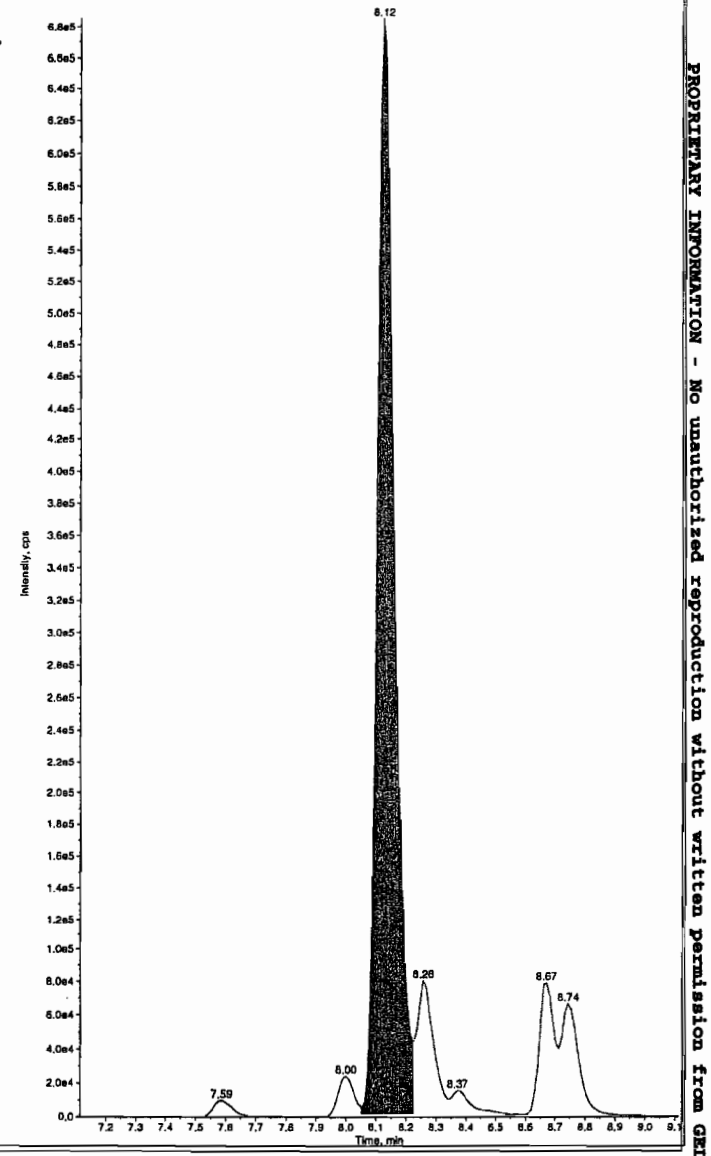


Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 404. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.11 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.13 min
Area: 2.89e+006 counts
Height: 687685.645 cps
Start Time: 8.05 min
End Time: 8.23 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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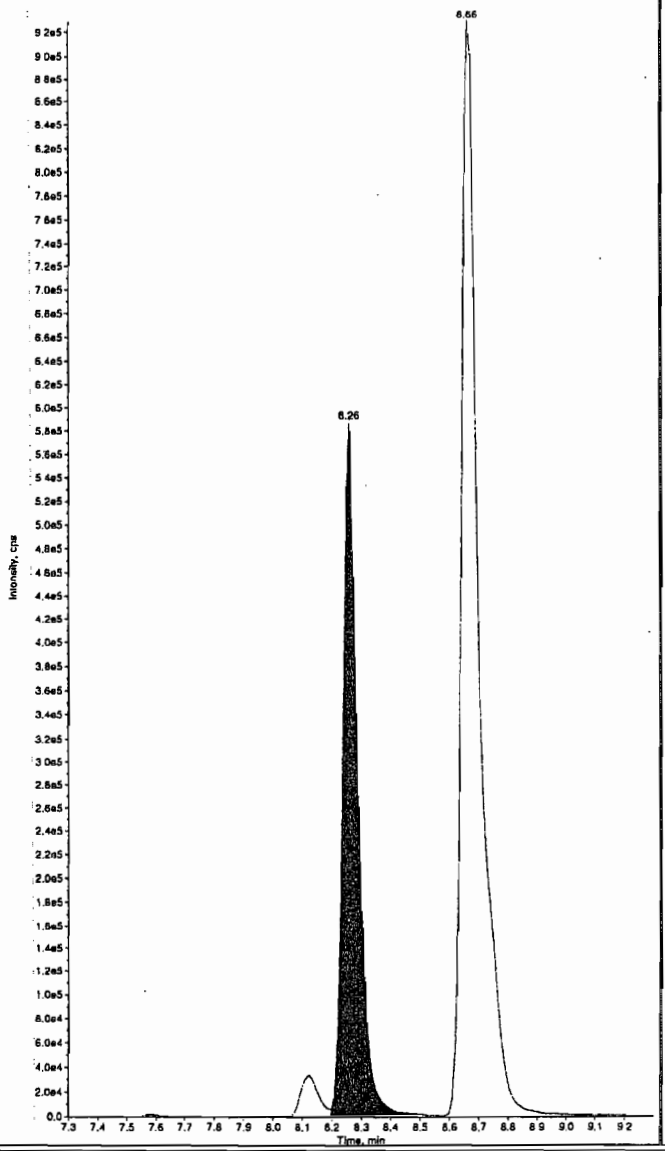
Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 241. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 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: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.26 min
Area: 2.16e+006 counts
Height: 585498.718 cps
Start Time: 8.20 min
End Time: 8.50 min

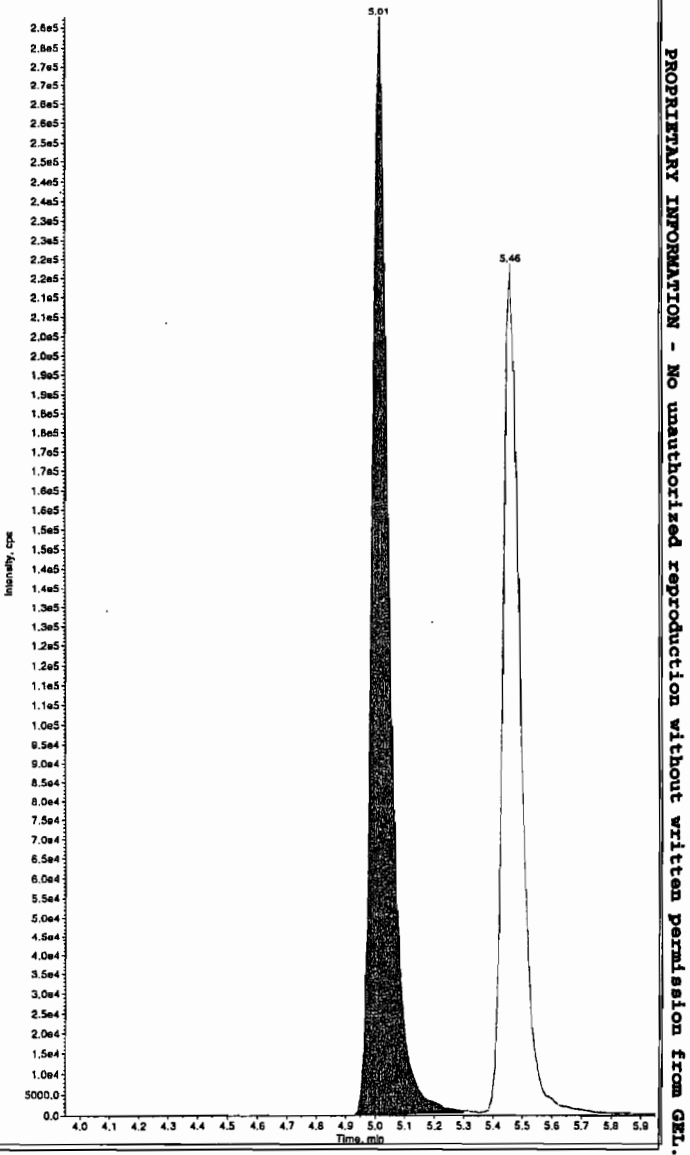


Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 434. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.21e+006 counts
Height: 282709.717 cps
Start Time: 4.92 min
End Time: 5.30 min



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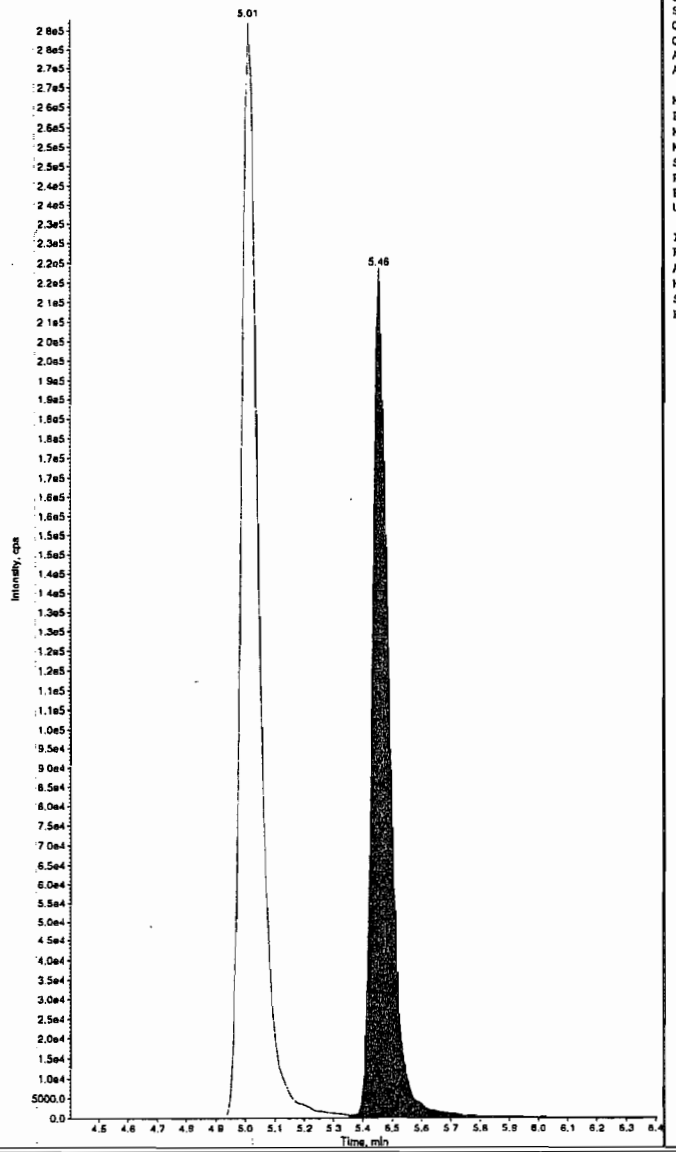
Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 407. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 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: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 9.15e+005 counts
Height: 218390.884 cps
Start Time: 5.35 min
End Time: 5.98 min

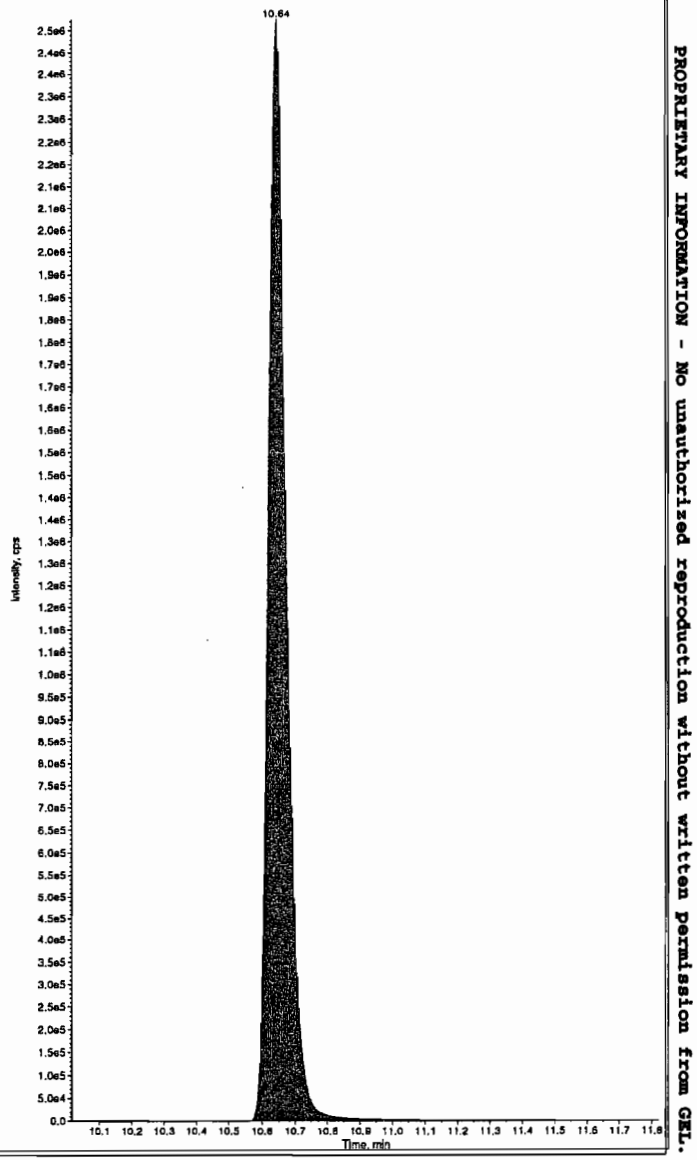


Sample Name: "1202061321" Sample ID: "961033|2|LER" File: "EXS04090069.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 517. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:02:51 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 9.85e+006 counts
Height: 2474429.199 cps
Start Time: 10.5 min
End Time: 11.0 min



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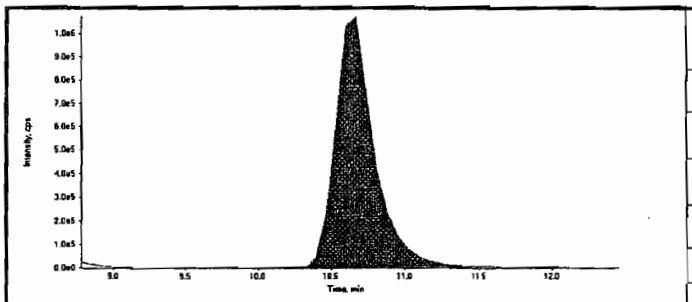
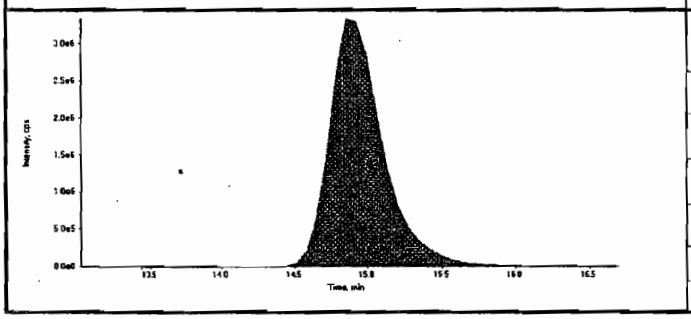
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM
LCMSMS#3

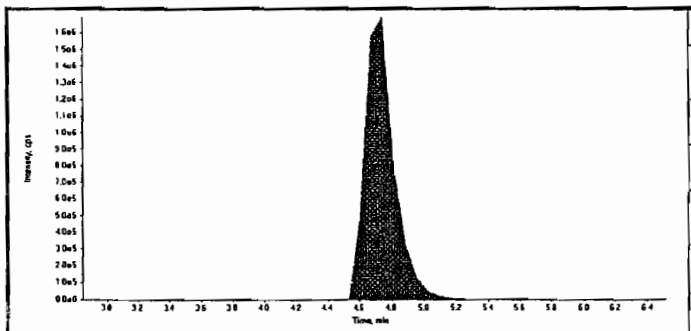
Data File	EXP0420022.wiff	**Acquisition Date**	4/20/2010 11:23:37 PM
Sample Name	1202061322	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	042010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



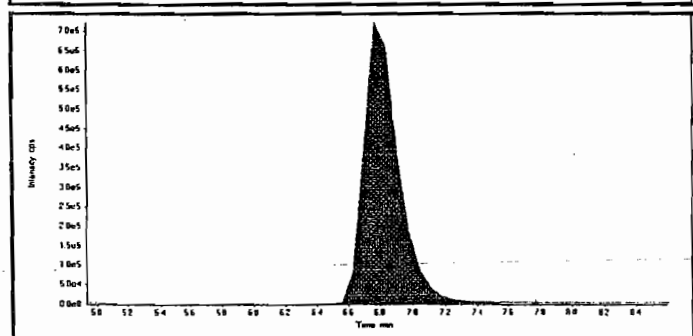
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	19900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	85300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.14e+007
Manual Modification	No
Amount:	502. (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.09e+007
Manual Modification	No
Amount:	498. (ng/mL)
% Accuracy:	N/A

Lan 4/29/10

4/29/10 04/29/10

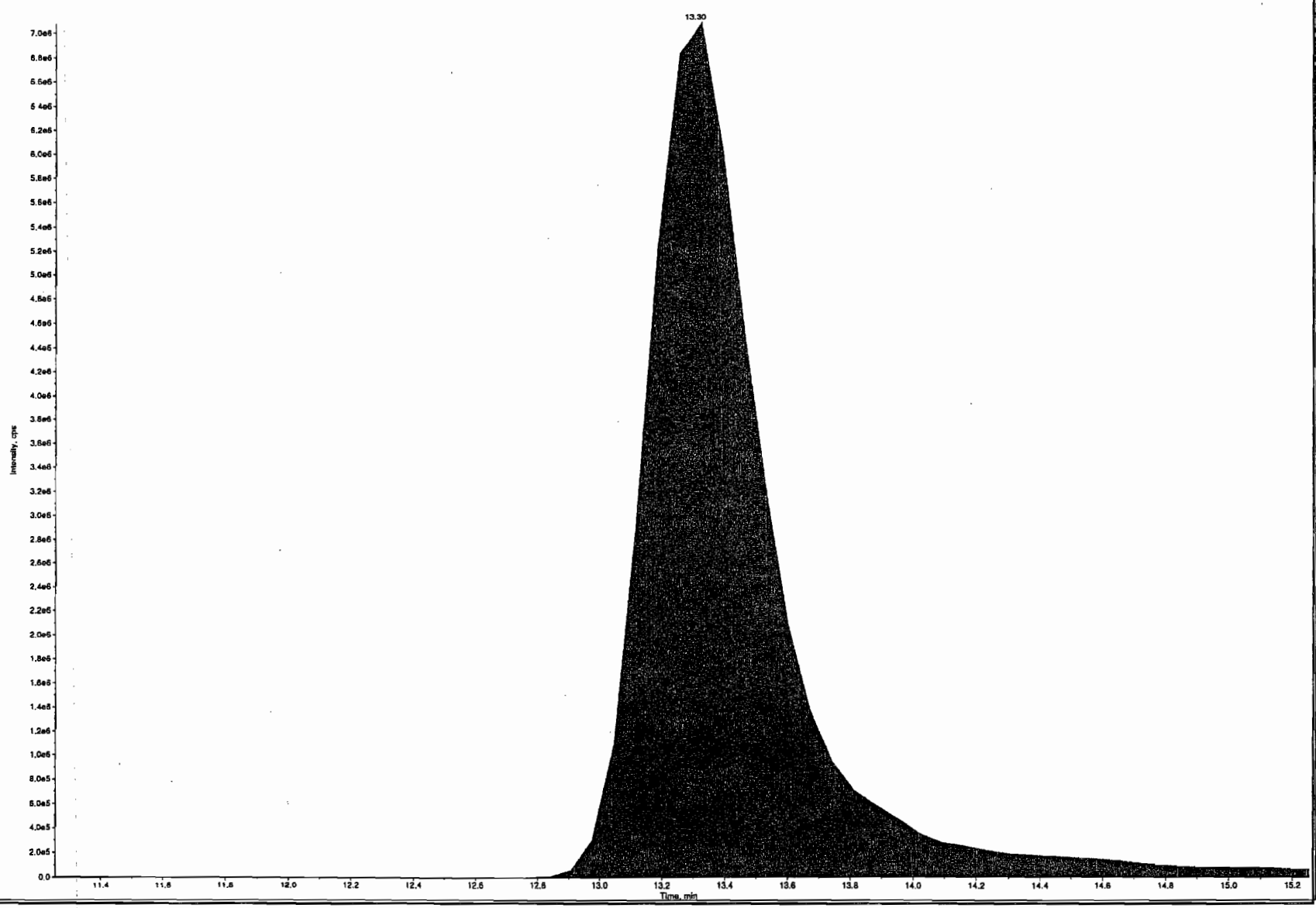
Before Scan 4/28/10

Sample Name: "1202061322" Sample ID: "961033[2]LER" File: "EXP0420022.wiff"
Peak Name "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 510. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 11:35:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 13.3 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 13.3 min
Area: 1.98e+008 counts
Height: 7.08e+006 cps
Start Time: 12.6 min
End Time: 17.7 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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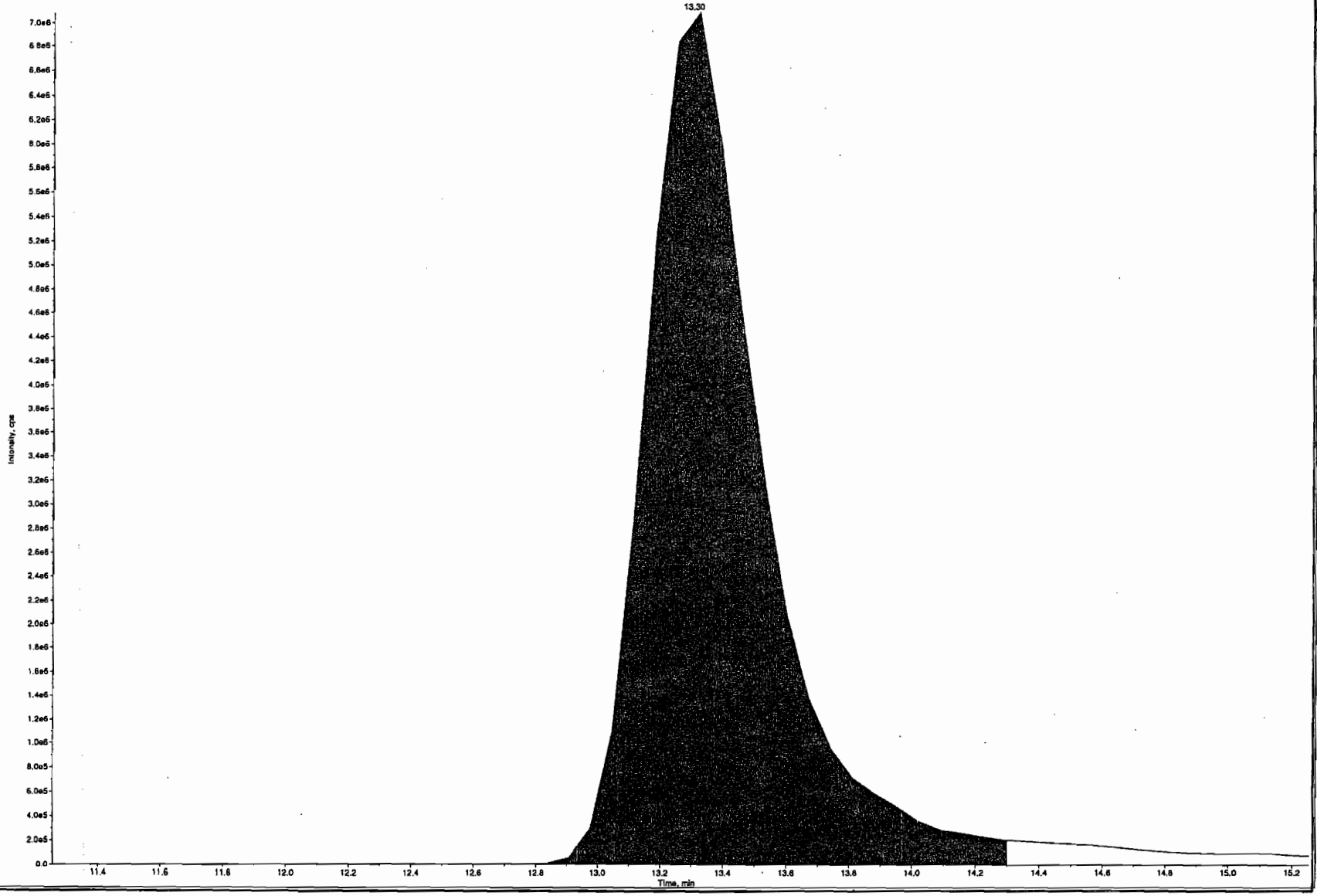
after Scan 4/28/10

Sample Name: "12020613.22" Sample ID: "561033(2)LER" File: "EXP0420022.wiff"
Peak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
Comment "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 481. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 11:23:37 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 11.1 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 13.3 min
Area: 1.86e+008 counts
Height: 7.14e+006 cps
Start Time: 12.8 min
End Time: 14.3 min



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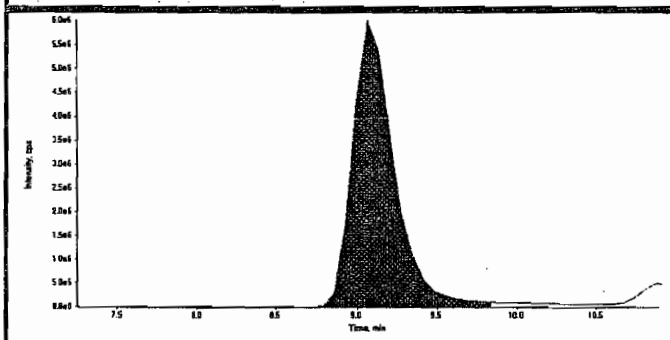
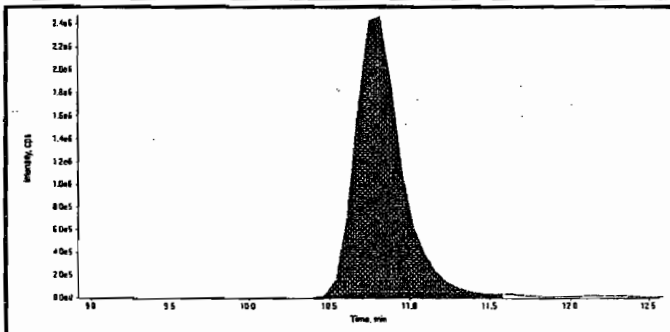
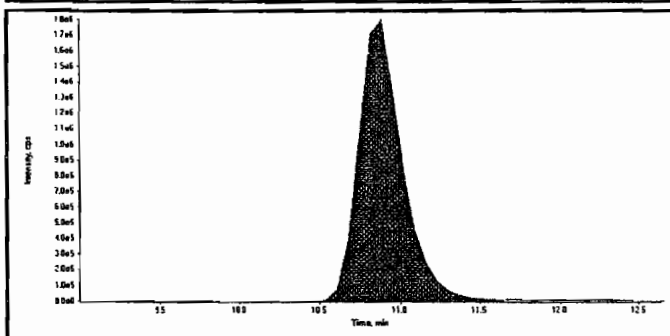
Data File	EXP0420022.wiff	**Acquisition Date**	4/20/2010 11:23:37 PM
Sample Name	1202061322	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	042010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



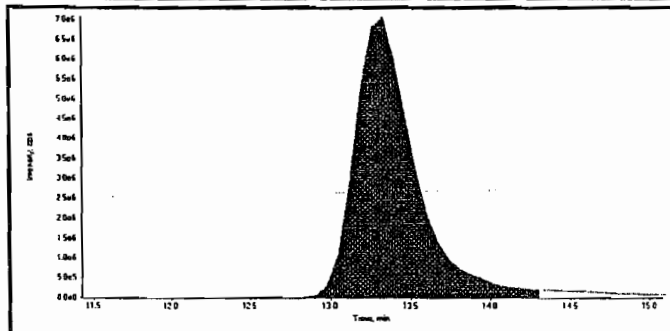
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.07
Actual RT:	9.07
Area Counts:	1.10e+008
Manual Modification	No
Amount:	501. (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	5.05e+007
Manual Modification	No
Amount:	493. (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.9
Area Counts:	3.44e+007
Manual Modification	No
Amount:	416. (ng/mL)
% Accuracy:	N/A



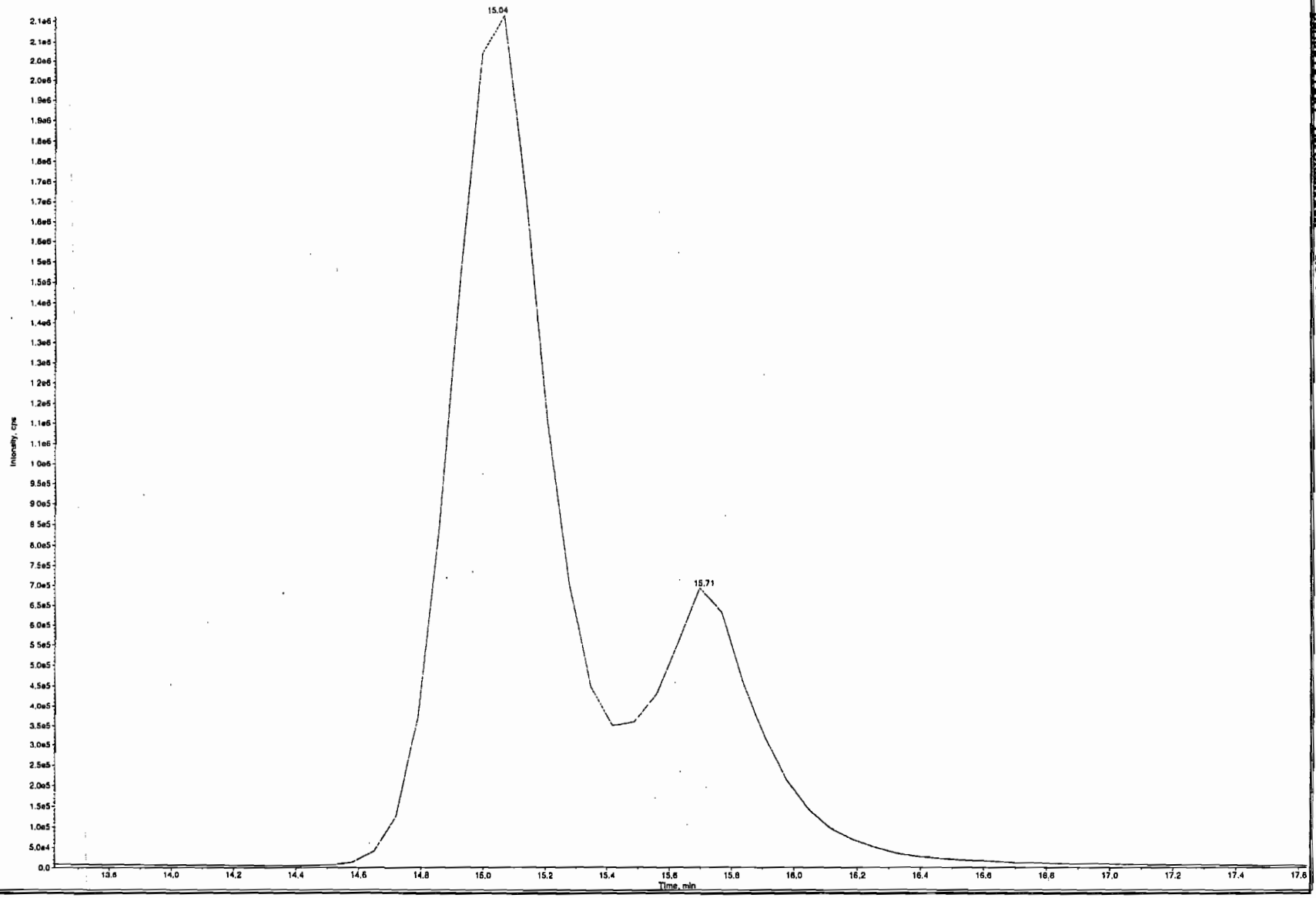
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	1.86e+008
Manual Modification	Yes
Amount:	481. (ng/mL)
% Accuracy:	N/A

Before Lan 4/28/10

Sample Name: "1202061322" Sample ID: "961033[2]LER" File: "EXP0420022.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/20/2010
Acq. Time: 11:23:17 PM

Modified: No



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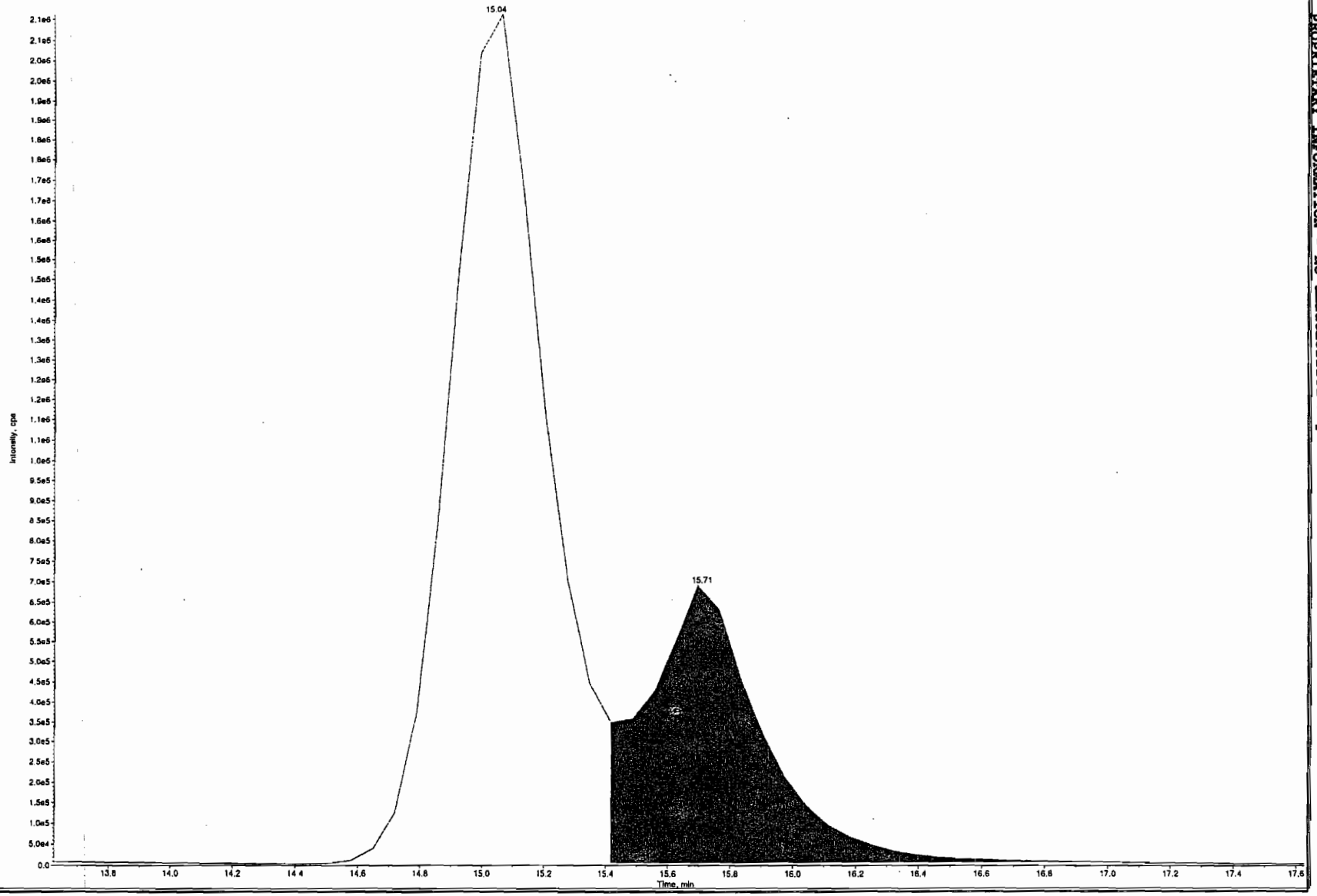
after Lcn 4/28/10

Sample Name: "12020813 22" Sample ID: "9610332[LER" File: "EXP0420022.wff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	501.	ng/mL
Acq. Date:	4/28/2010	
Acq. Time:	11:23:17 PM	
Modified:	Yes	
RT Window:	30.0	sec
Expected RT:	15.6	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	15.7	min
Area:	1.75e+007	counts
Height:	6.87e+005	cps
Start Time:	15.4	min
End Time:	16.9	min



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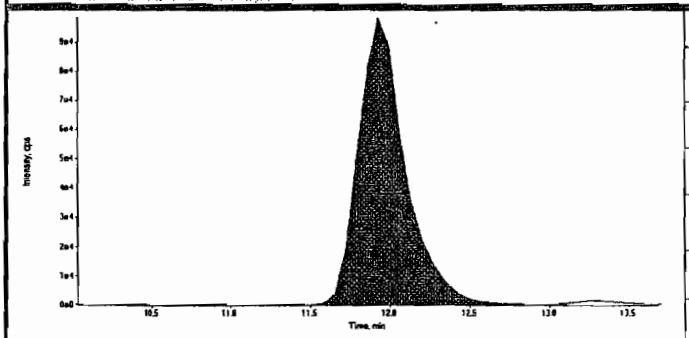
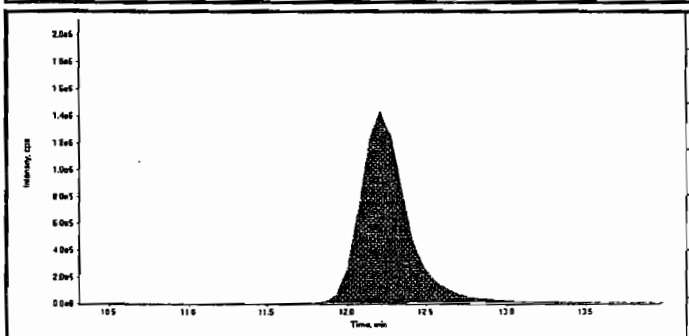
LCMSMS#3

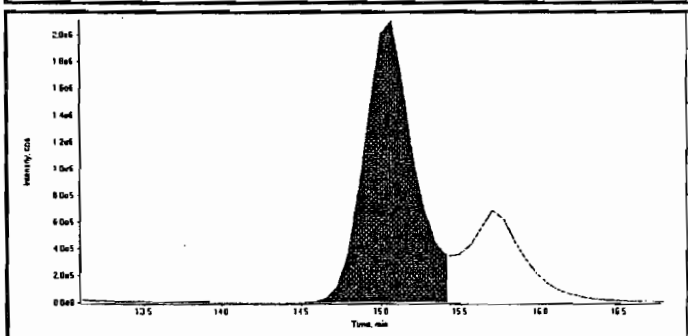
Data File	EXP0420022.wiff	**Acquisition Date**	4/20/2010 11:23:37 PM
Sample Name	1202061322	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	042010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



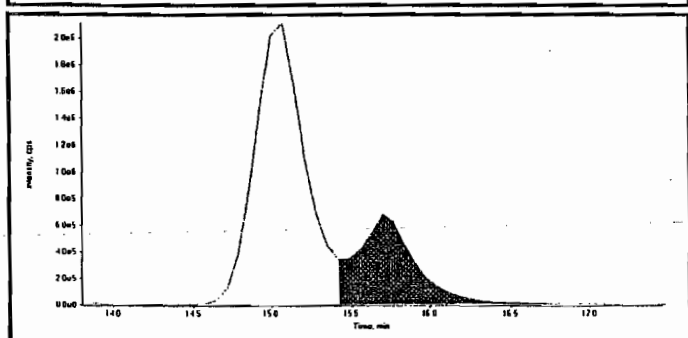
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	2.07e+006
Manual Modification	No
Amount:	466. (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.94e+007
Manual Modification	No
Amount:	256. (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	15.1
Area Counts:	4.67e+007
Manual Modification	No
Amount:	492. (ng/mL)
% Accuracy:	N/A



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	1.75e+007
Manual Modification	Yes
Amount:	501. (ng/mL)
% Accuracy:	N/A

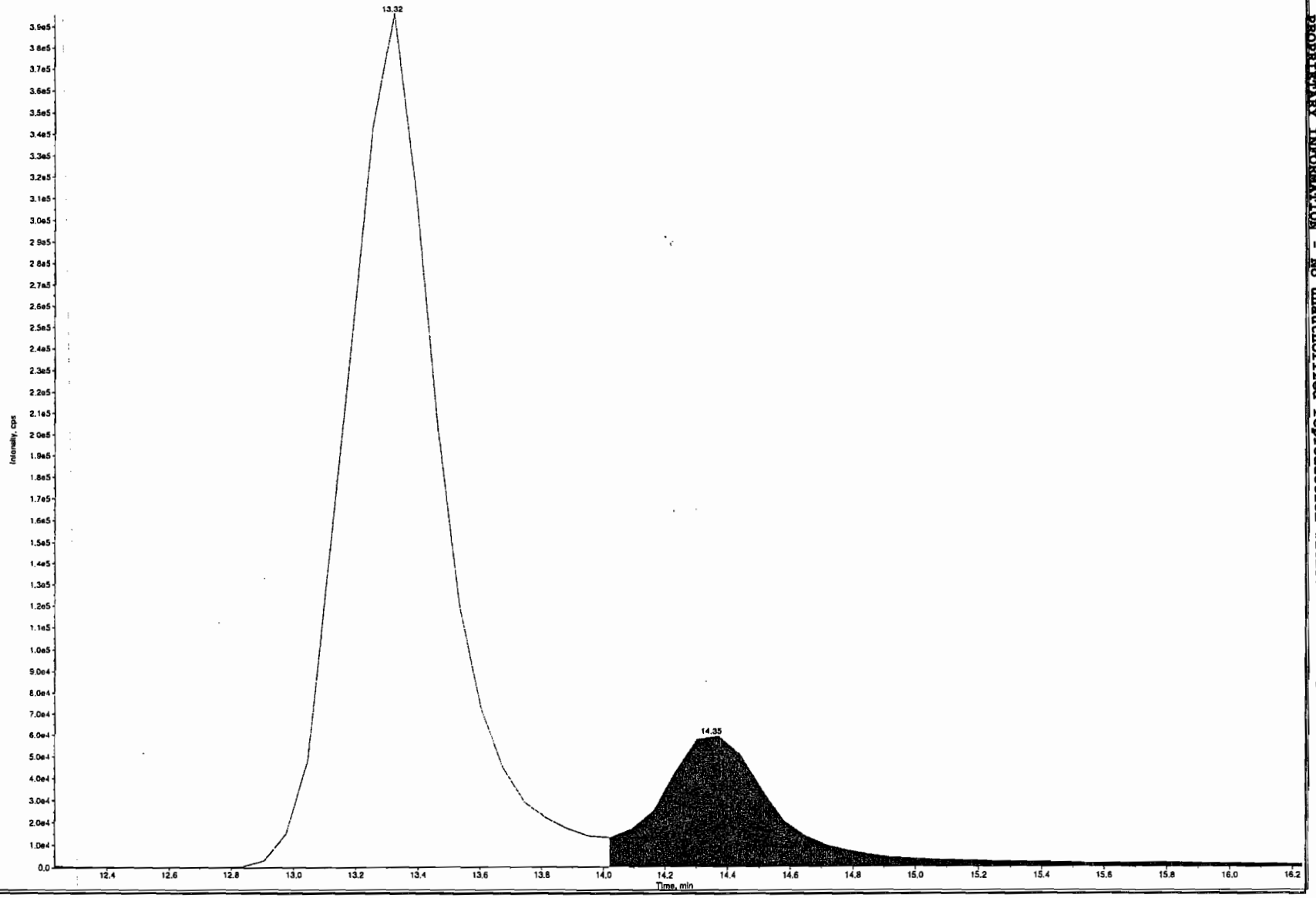
Before Lcr 4/28/10

Sample Name: "1202051322" Sample ID: "951033|2|LER" File "EXP0420022.wiff"
Peak Name. "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX8321_S" Annotation. ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1050. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 11:25:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - 10A
Min. Peak Height: 1000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 14.2 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.4 min
Area: 2.76e+006 counts
Height: 6.64e+004 cps
Start Time: 14.0 min
End Time: 18.1 min



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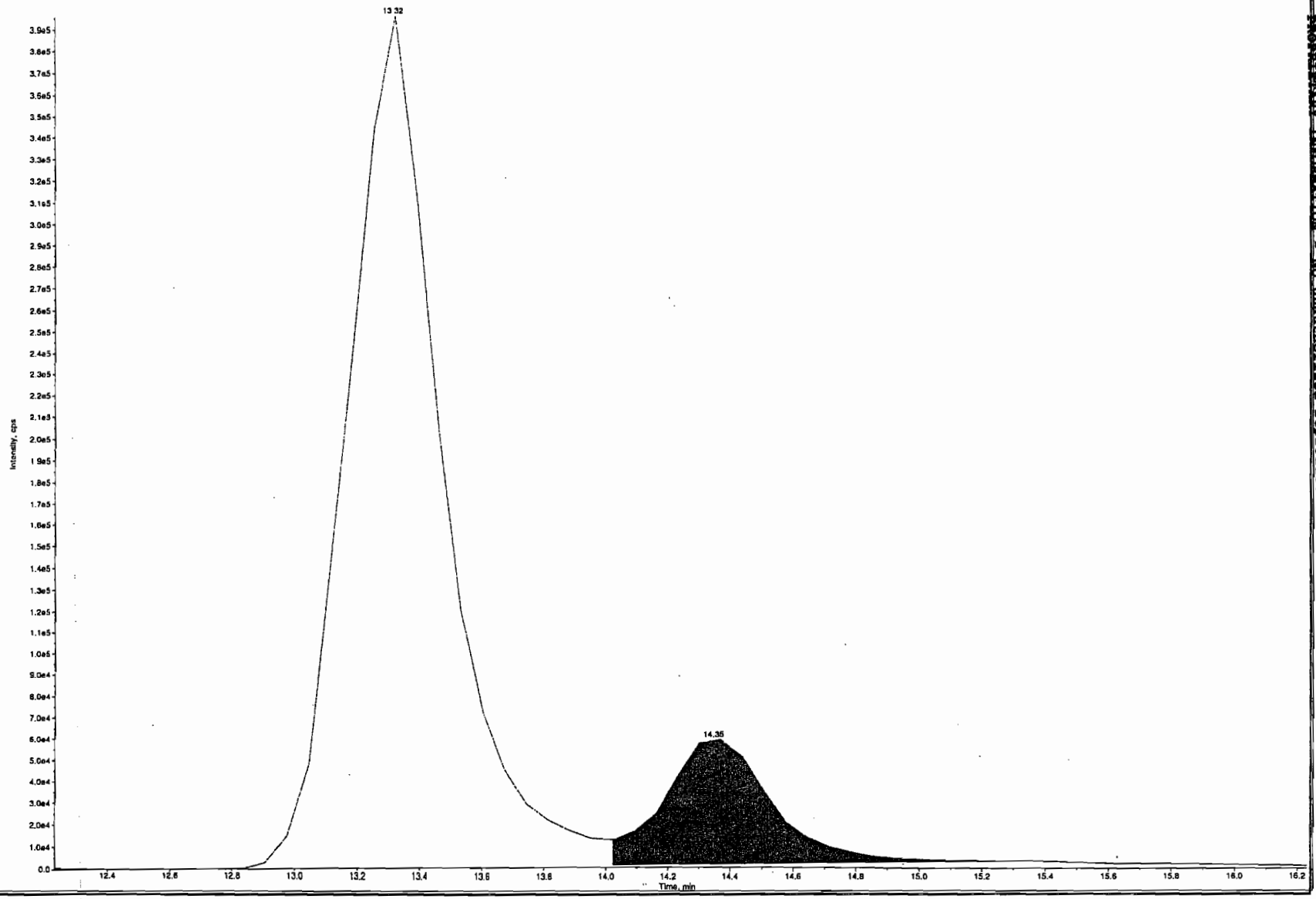
after Exc. 4/28/10

Sample Name: "1202061322" Sample ID: "961033(2)LER" File: "EXP0420022.wiff"
Peak Name. "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment "LCX8321_5" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 535. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 11:21:37 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 14.2 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 14.3 min
Area: 1.41e+006 counts
Height: 5.82e+004 cps
Start Time: 14.0 min
End Time: 15.1 min



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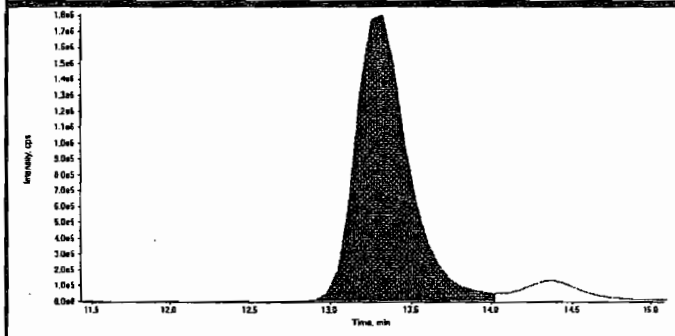
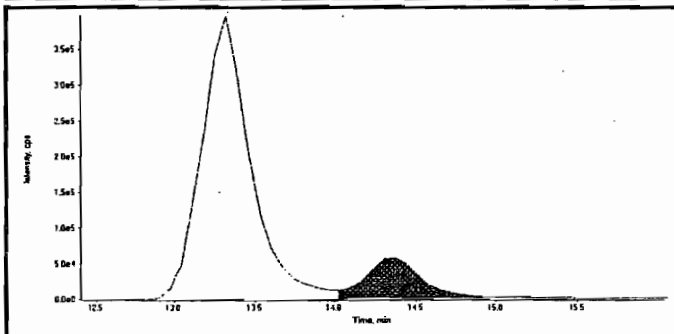
LCMSMS#3

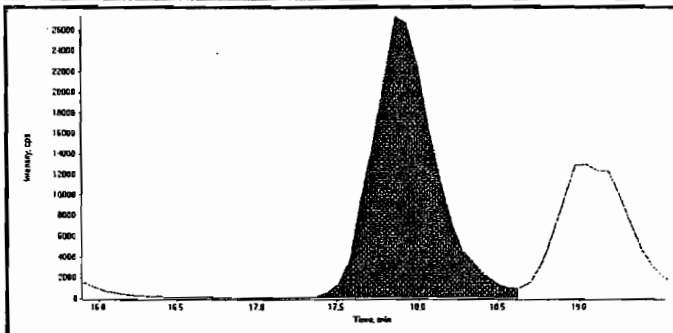
Data File	EXP0420022.wiff	Acquisition Date	4/20/2010 11:23:37 PM
Sample Name	1202061322	Acquisition Method	8321.dam
Batch|Dilution|Analyst	961033|2|LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



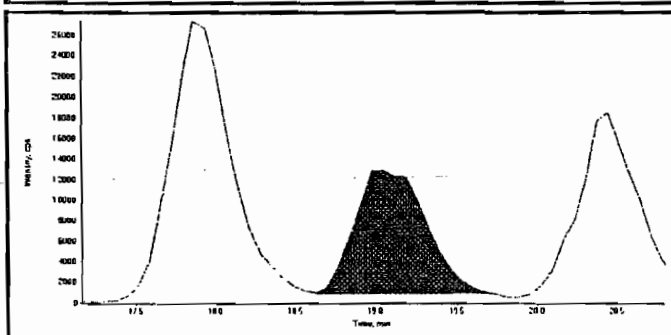
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	4.14e+007
Manual Modification	No
Amount:	568. (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.3
Area Counts:	1.41e+006
Manual Modification	Yes
Amount:	535. (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	17.9
Area Counts:	7.36e+005
Manual Modification	No
Amount:	468. (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	3.77e+005
Manual Modification	No
Amount:	464. (ng/mL)
% Accuracy:	N/A

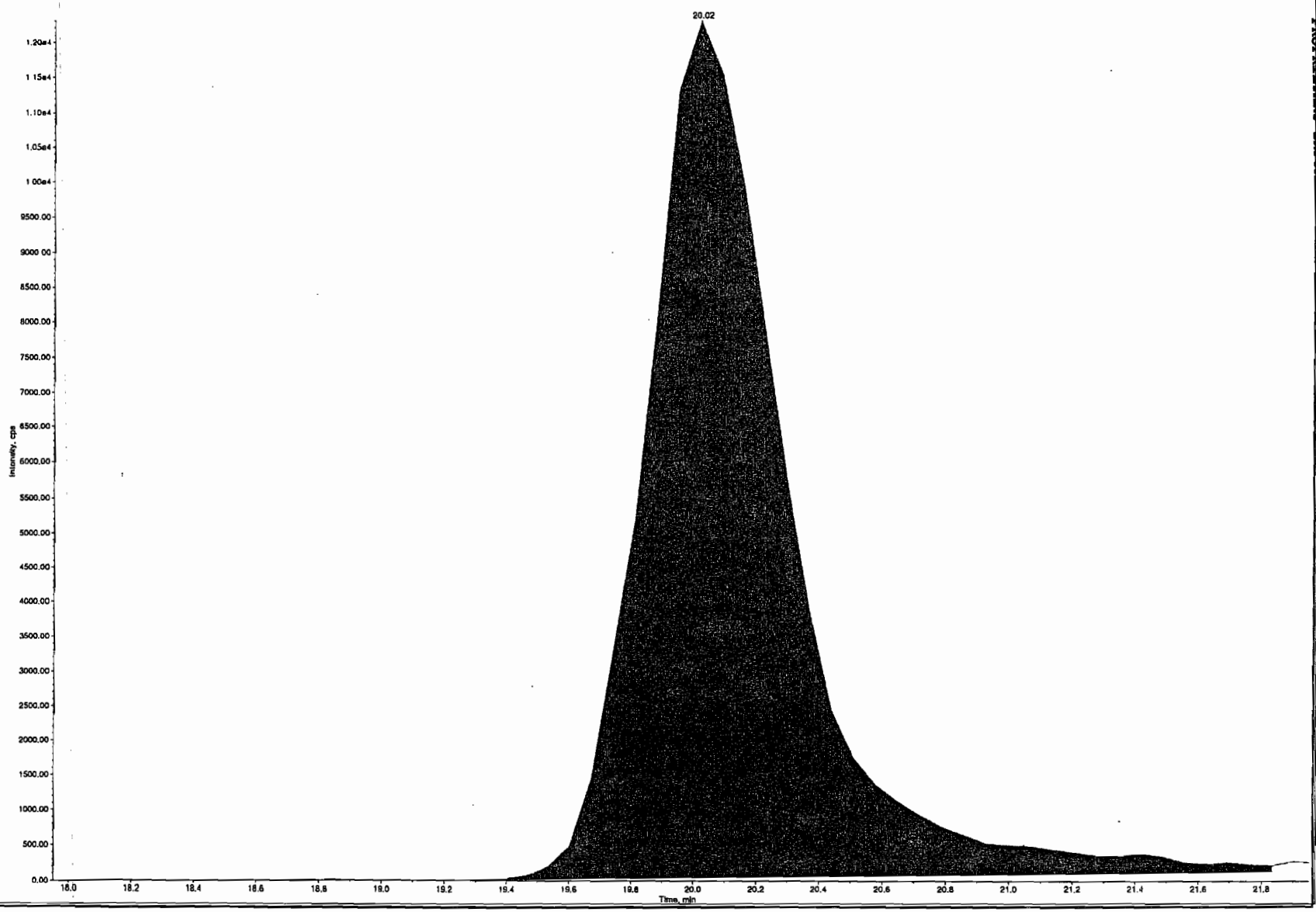
Before LCR 4/29/10

Sample Name: "1202051322" Sample ID: "981033[2]LER" File: "EXP0420022.wiff"
Peak Name "PETN" Mass(es): "361.1/62.0 amu"
Comment "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 501. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 11:21:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 100.00 cps
Min. Peak Width: 6.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 20.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 20.0 min
Area: 3.86e+005 counts
Height: 1.22e+004 cps
Start Time: 19.5 min
End Time: 21.8 min



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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

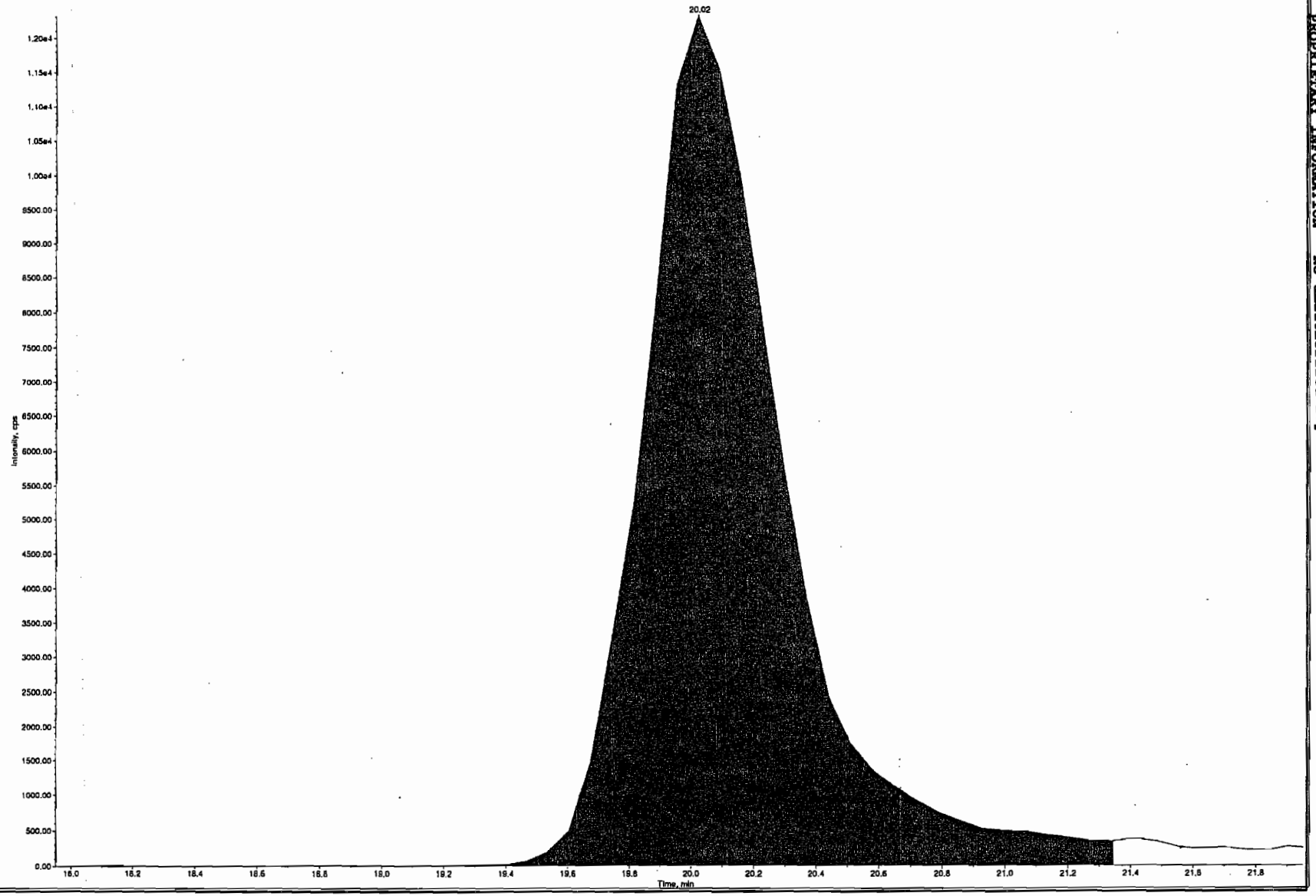
After LCR 4/29/10

Sample Name: "1202061322" Sample ID: "961033(2)LER" File: "EXP0420022.wiff"
Peak Name: "PETN" Mass(es): "351.1/62.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 502. ng/mL
Acq. Date: 4/20/2010
Acq. Time: 11:23:37 PM

Modified: Yes
RT Window: 60.0 sec
Expected RT: 20.0 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 20.0 min
Area: 1.89e+005 counts
Height: 1.23e+004 cps
Start Time: 19.3 min
End Time: 21.3 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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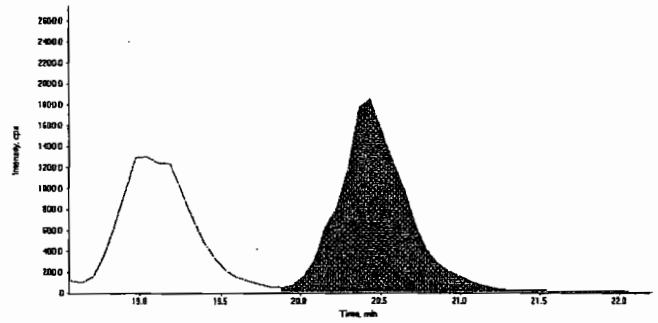
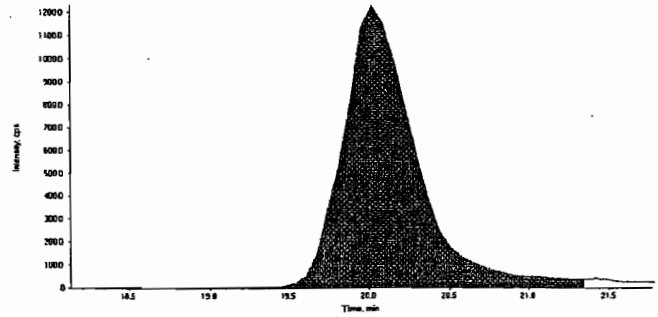
Data File	EXP0420022.wiff	**Acquisition Date**	4/20/2010 11:23:37 PM
Sample Name	1202061322	**Acquisition Method**	8321.dam
Batch|Dilution|Analyst	961033|2|LER	**Result Table**	042010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	5.27e+005
Manual Modification	No
Amount:	450. (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	3.89e+005
Manual Modification	Yes
Amount:	502. (ng/mL)
% Accuracy:	N/A

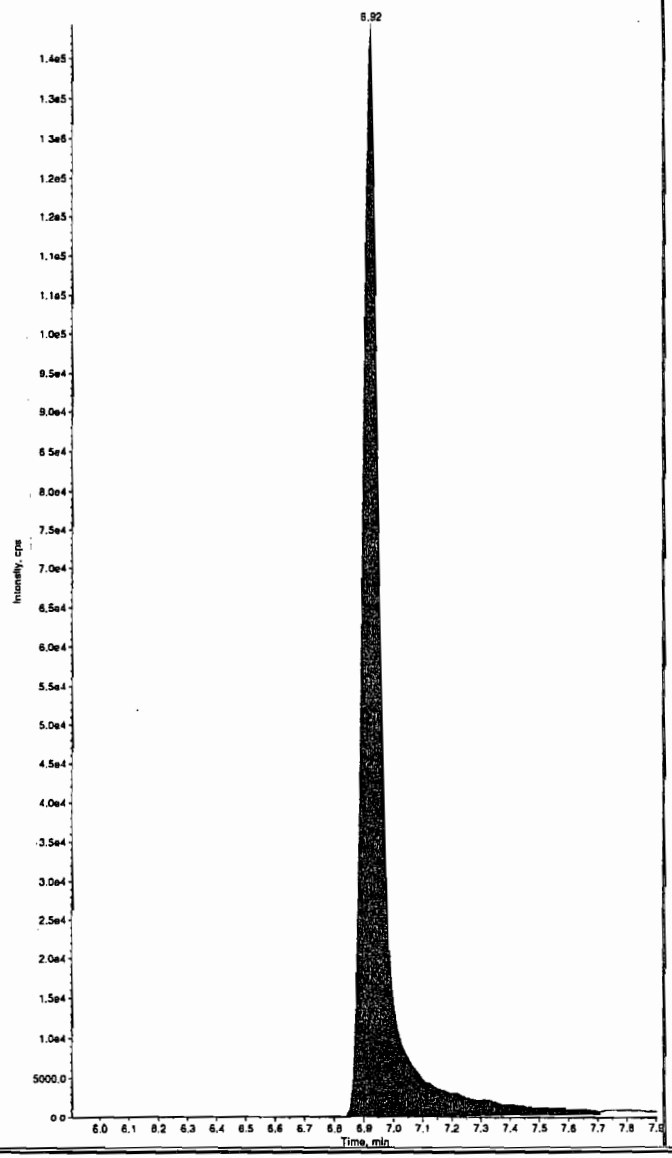
Before Dan 4/12/10

Sample Name: "1202061322" Sample ID: "961033|2|LER" File: "EXS04090070.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: 705. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 6.76e+005 counts
Height: 139365.204 cps
Start Time: 6.79 min
End Time: 7.71 min

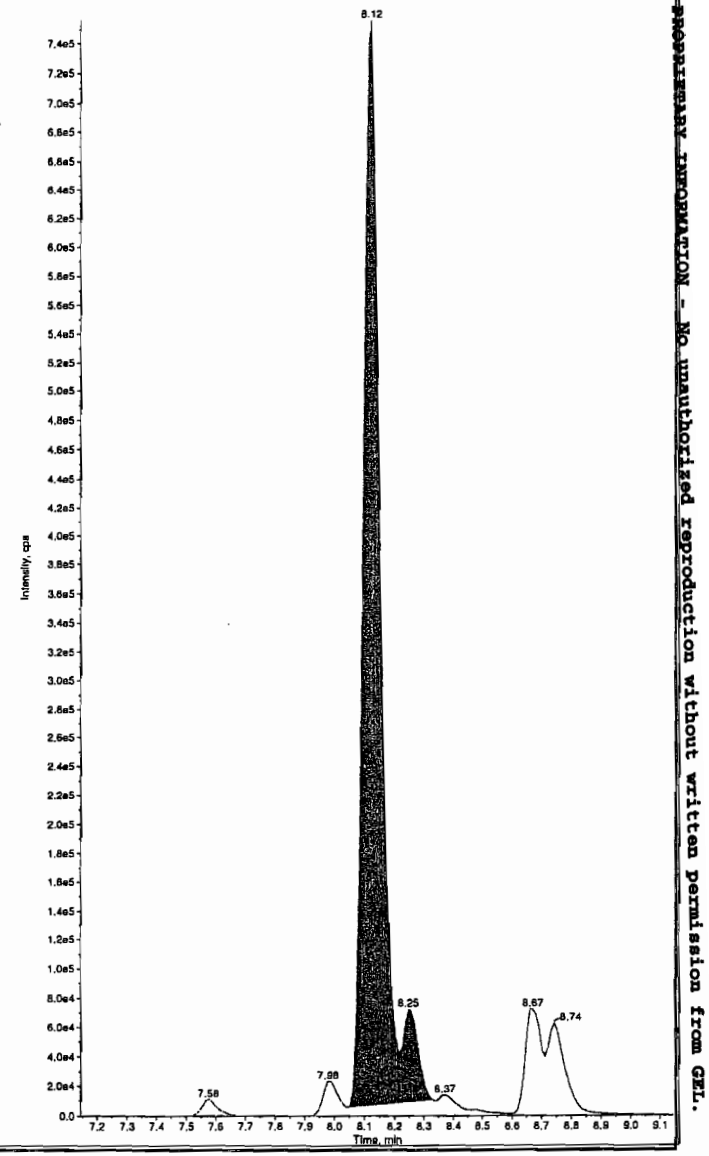


Sample Name: "1202061322" Sample ID: "961033|2|LER" File: "EXS04090070.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 460. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 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: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.27e+006 counts
Height: 750094.299 cps
Start Time: 8.04 min
End Time: 8.33 min



Hmc 04/12/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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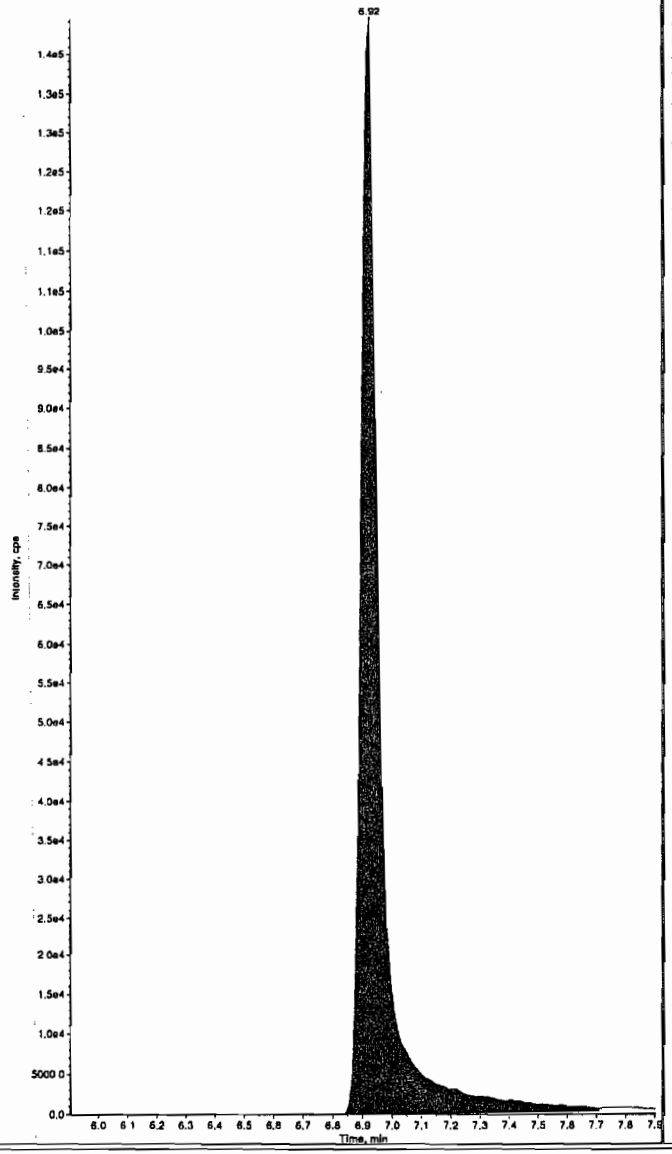
after

Sample Name: "1202061322" Sample ID: "961033|2|LER" File: "EXS04090070.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: 708. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 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: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 6.76e+005 counts
Height: 139365.204 cps
Start Time: 6.79 min
End Time: 7.71 min

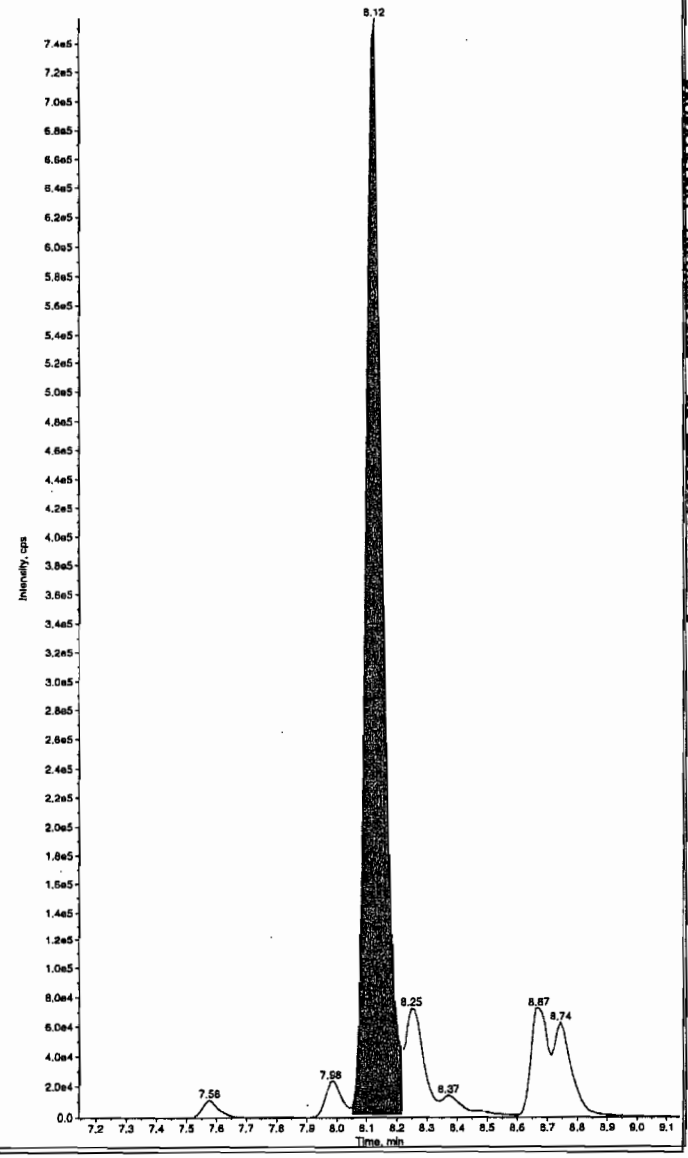


Sample Name: "1202061322" Sample ID: "961033|2|LER" File: "EXS04090070.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 433. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.12 min
Area: 3.09e+006 counts
Height: 763170.628 cps
Start Time: 8.05 min
End Time: 8.22 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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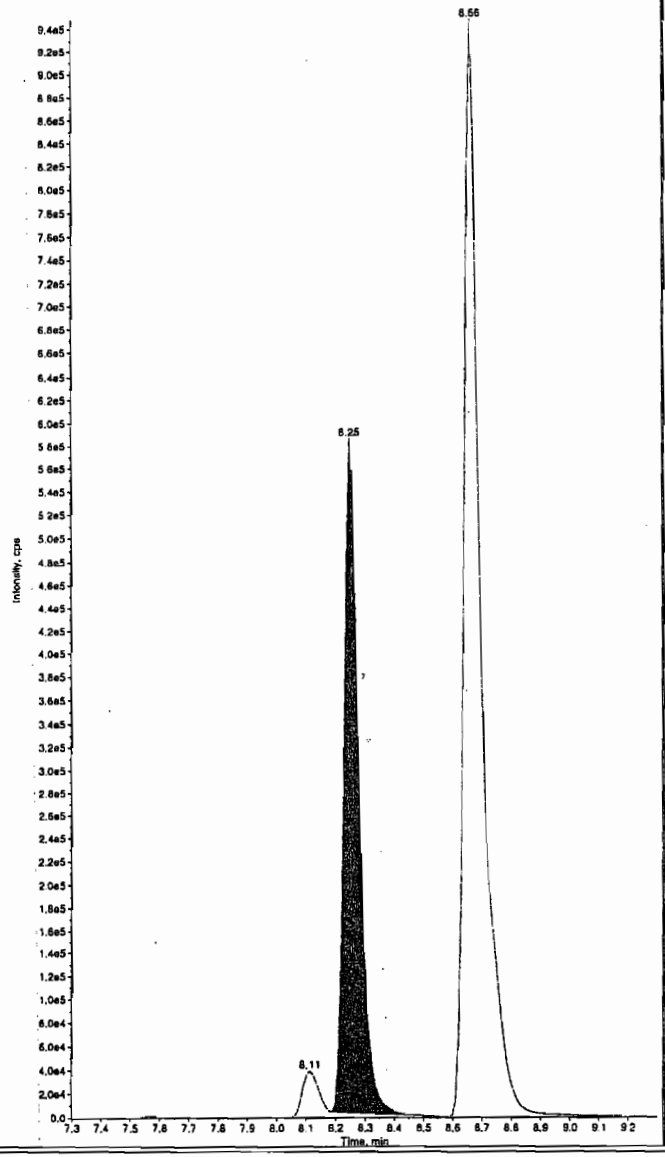
Sample Name: "1202061322" Sample ID: "961033|2|LER" File: "EXS04090070.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 240. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 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: 30.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.25 min
Area: 2.16e+006 counts
Height: 583148.560 cps
Start Time: 8.18 min
End Time: 8.47 min

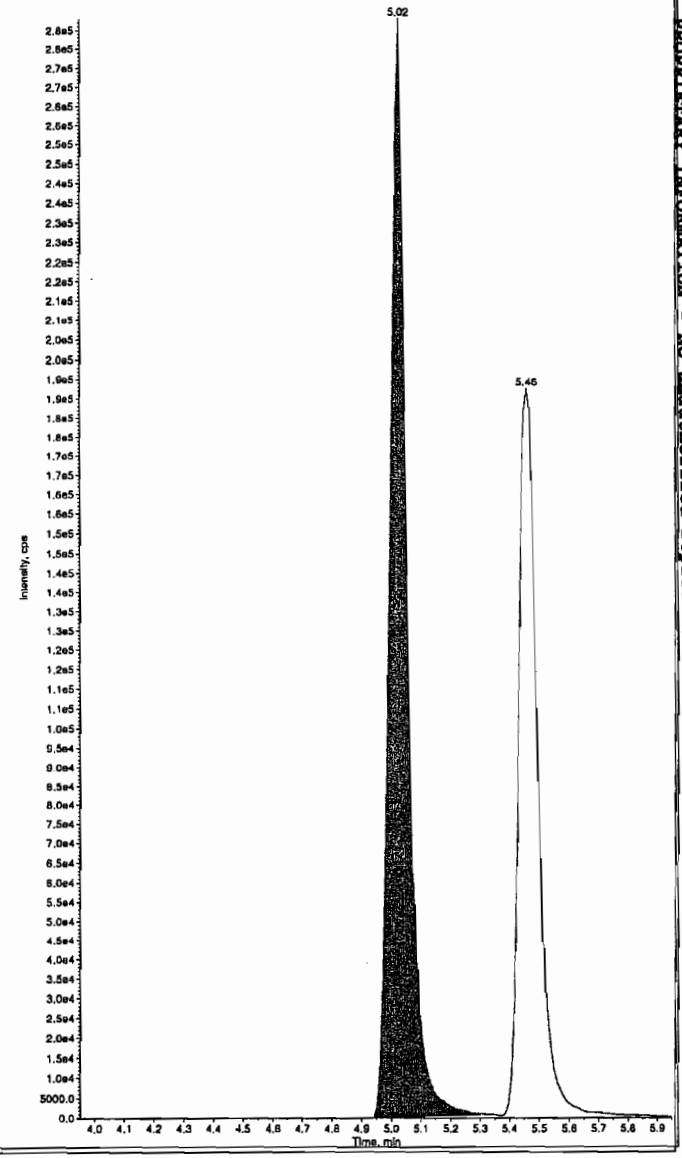


Sample Name: "1202061322" Sample ID: "961033|2|LER" File: "EXS04090070.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 433. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 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: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.21e+006 counts
Height: 282724.579 cps
Start Time: 4.92 min
End Time: 5.30 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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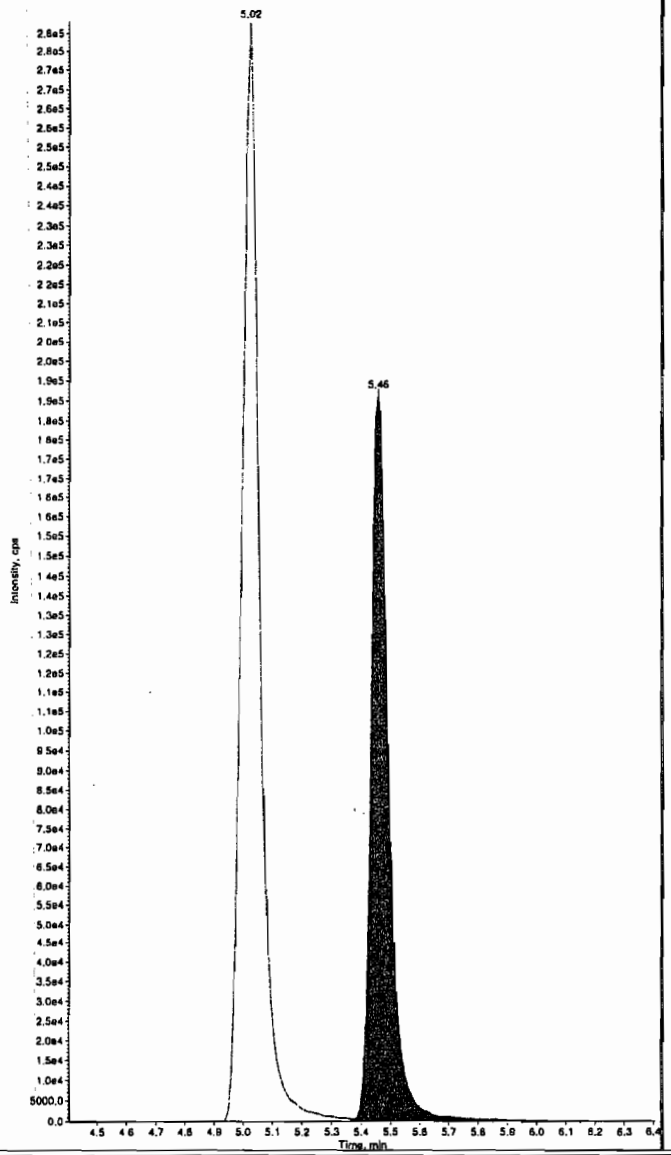
Sample Name: "1202061322" Sample ID: "951033|2|LER" File: "EXS04090070.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 367. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 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: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 8.24e+005 counts
Height: 187161.530 cps
Start Time: 5.35 min
End Time: 6.01 min

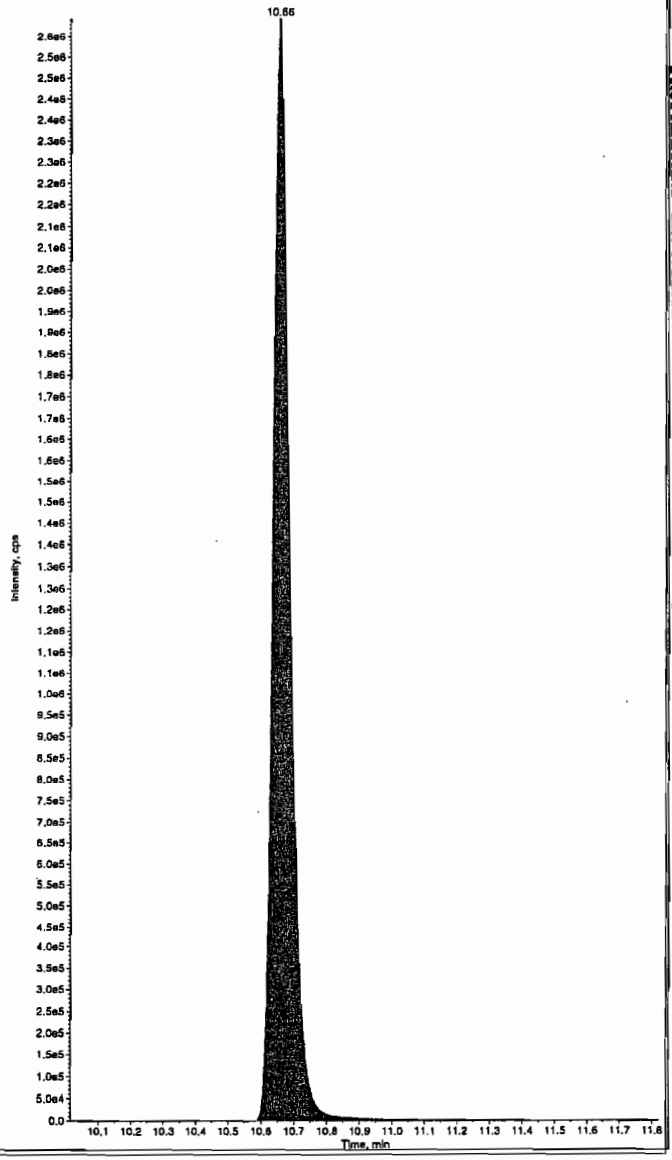


Sample Name: "1202061322" Sample ID: "951033|2|LER" File: "EXS04090070.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 510. ng/mL
Acq. Date: 4/10/2010
Acq. Time: 1:18:34 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: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.7 min
Area: 9.72e+006 counts
Height: 2593156.982 cps
Start Time: 10.5 min
End Time: 11.1 min



*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
29-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
961033	See Below		

Potentially affected work order(s)(SDG): 248514(10-2196),248517(10-2198),248519(10-2199),248526(10-2202)

Application Issues:

Sample Analyzed out of Holding

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. The analytical holding times for the following samples were exceeded due to limitations of instrument capacity: 248519005, 248519006, 248519007, 248519008, 248519009, 248519010, 248519011, 248526001, 1202061321(MS), and 1202061322(MSD).	1. These samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The discrepancy is noted in the case narrative.
2. The LCS(1202061320) did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the data package for a list of recoveries.	2. The MS(1202061321) and MSD(1202061322) had passing recoveries for these analytes. The data are reported.
3. The MS(1202061321) did not meet acceptance criteria for the recovery of TATB at 161%. The limits are 29-155%.	3. The LCS(1202061320) and the MSD(1202061322) had passing criteria for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

Originator's Name:

Lynne Russell 29-APR-10

Data Validator/Group Leader:

Herbert Maier 29-APR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	966420
Prep Batch Number:	966418

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248517001	RE36-10-8292
1202073937	Method Blank (MB)
1202073938	Laboratory Control Sample (LCS)
1202073939	248526001(RE36-10-8466) Matrix Spike (MS)
1202073940	248526001(RE36-10-8466) 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-040 REV# 15.

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 calibration verification standards (CVS, ICV, or CCV) requirements have been met for this SDG.

One of five peaks failed in the Aroclor-1016 and Aroclor-1260 standards bracketing the samples in this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this non-compliance has no adverse effects on the data.

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
A LANL sample of similar matrix associated with another SDG (#10-2202) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

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 not within the established acceptance limits due to dilution and matrix interference.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD did not meet the acceptance limits due to dilution and matrix interference..

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
Re-extractions or re-analyses were not required in this SDG.

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 reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations
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 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
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

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: Andy Whittock Date: 3-29-2010

Roadmap for LANL 10-2198 PCB

This roadmap was analyzed by jen01212 on 03-22-2010, 14:30.
This roadmap was packaged by yml on 03-29-2010, 16:09.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/031910.b/035f3501.d	248517001	sample	19-MAR-2010	14:14	10-2198.sub	RE36-10-8292	1.00000	966420	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/031910.b/035b3501.d	248517001	sample	19-MAR-2010	14:14	10-2198.sub	RE36-10-8292	1.00000	966420	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/031910.b/026f2601-2.d	1202073937	mb	19-MAR-2010	12:23	10-2198.sub	PBLK01	1.00000	966420	
☐	N	/chem/ecd8a.i/031910.b/027f2701-2.d	1202073938	lcs	19-MAR-2010	12:35	10-2198.sub	PBLK01LCS	1.00000	966420	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/031910.b/026b2601-2.d	1202073937	mb	19-MAR-2010	12:23	10-2198.sub	PBLK01	1.00000	966420	
☐	N	/chem/ecd8a.i/031910.b/027b2701-2.d	1202073938	lcs	19-MAR-2010	12:35	10-2198.sub	PBLK01LCS	1.00000	966420	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36–10–8292**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**966420**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 14:14**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/18/2010 10:57**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.28	ug/kg	1.42	4.28	1
11104–28–2	Aroclor–1221	U	4.28	ug/kg	1.42	4.28	1
11141–16–5	Aroclor–1232	U	4.28	ug/kg	1.42	4.28	1
53469–21–9	Aroclor–1242	U	4.28	ug/kg	1.42	4.28	1
12672–29–6	Aroclor–1248	U	4.28	ug/kg	1.42	4.28	1
11097–69–1	Aroclor–1254	U	4.28	ug/kg	1.42	4.28	1
11096–82–5	Aroclor–1260	U	4.28	ug/kg	1.42	4.28	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2198

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 #
1202073937	MB for batch 966418	71	75	94	98
1202073938	LCS for batch 966418	76	80	97	103
248517001	RE36–10–8292	45	47	50	49

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

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2198**
Client ID: **LCS for batch 966418**
Lab Sample ID: **1202073938**
Instrument: **ECD8A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/19/2010 12:35**
Dilution: **1**
Prep Batch ID: **966418**
Batch ID: **966420**

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	25.5	77	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	31.1	93	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2202
Client ID: RE36-10-8466MS
Lab Sample ID: 1202073939
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 12.4
Analysis Date: 03/19/2010 17:52
Prep Batch ID: 966418
Batch ID: 966420

Dilution: 10

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	38.0	0.00	U	17.9	47	23-119
11096-82-5	MS	Aroclor-1260	38.0	0.00	U	17.6	46	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2202
Client ID: RE36–10–8466MSD
Lab Sample ID: 1202073940
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 12.4
Analysis Date: 03/19/2010 18:05
Prep Batch ID: 966418
Batch ID: 966420
Dilution: 10

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	38.0	0.00	U	0.00	0 *	23–119	200 *	0–28
11096–82–5	MSD Aroclor–1260	38.0	0.00	U	0.00	0 *	28–124	200 *	0–30

Method Blank Summary

SDG Number:	10-2198	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966418	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	026b2601-1.d 026f2601-1.d
Lab Sample ID:	1202073937				
Column:	CLP2 CLP1	Prep Date:	03/18/2010 10:57	Analyzed:	03/19/10 12:23
		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 966418	1202073938	027f2701-1.d 027b2701-1.d	03/19/10	1235
02 RE36-10-8292	248517001	035f3501.d 035b3501.d	03/19/10	1414

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**	**Date Collected:**	**02/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**248517001**	**Date Received:**	**03/03/2010 08:50**	**%Moisture:**	**22.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE36-10-8292**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**966420**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 14:14**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/18/2010 10:57**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.28	ug/kg	1.42	4.28	1
11104-28-2	Aroclor-1221	U	4.28	ug/kg	1.42	4.28	1
11141-16-5	Aroclor-1232	U	4.28	ug/kg	1.42	4.28	1
53469-21-9	Aroclor-1242	U	4.28	ug/kg	1.42	4.28	1
12672-29-6	Aroclor-1248	U	4.28	ug/kg	1.42	4.28	1
11097-69-1	Aroclor-1254	U	4.28	ug/kg	1.42	4.28	1
11096-82-5	Aroclor-1260	U	4.28	ug/kg	1.42	4.28	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/035f3501.d
Lab Smp Id: 248517001 Client Smp ID: RE36-10-8292
Inj Date : 19-MAR-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248517001|1|
Misc Info : |ECD82P_1S|966420|SVA|LANL|SOIL|RE36-10-8292|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2198.sub
Target Version: 3.50 Sample Matrix: Soil

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	30.02000	Weight of sample extracted (g)
M	22.10250	% 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		
2.249	2.248	0.001	11217405	89.7670	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.239	-0.001	8233454	99.9800	4.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/031910.b/035f3501.d

Page 1

Date : 19-MAR-2010 14:14

Client ID: RE36-10-8292

Instrument: ecd8a.i

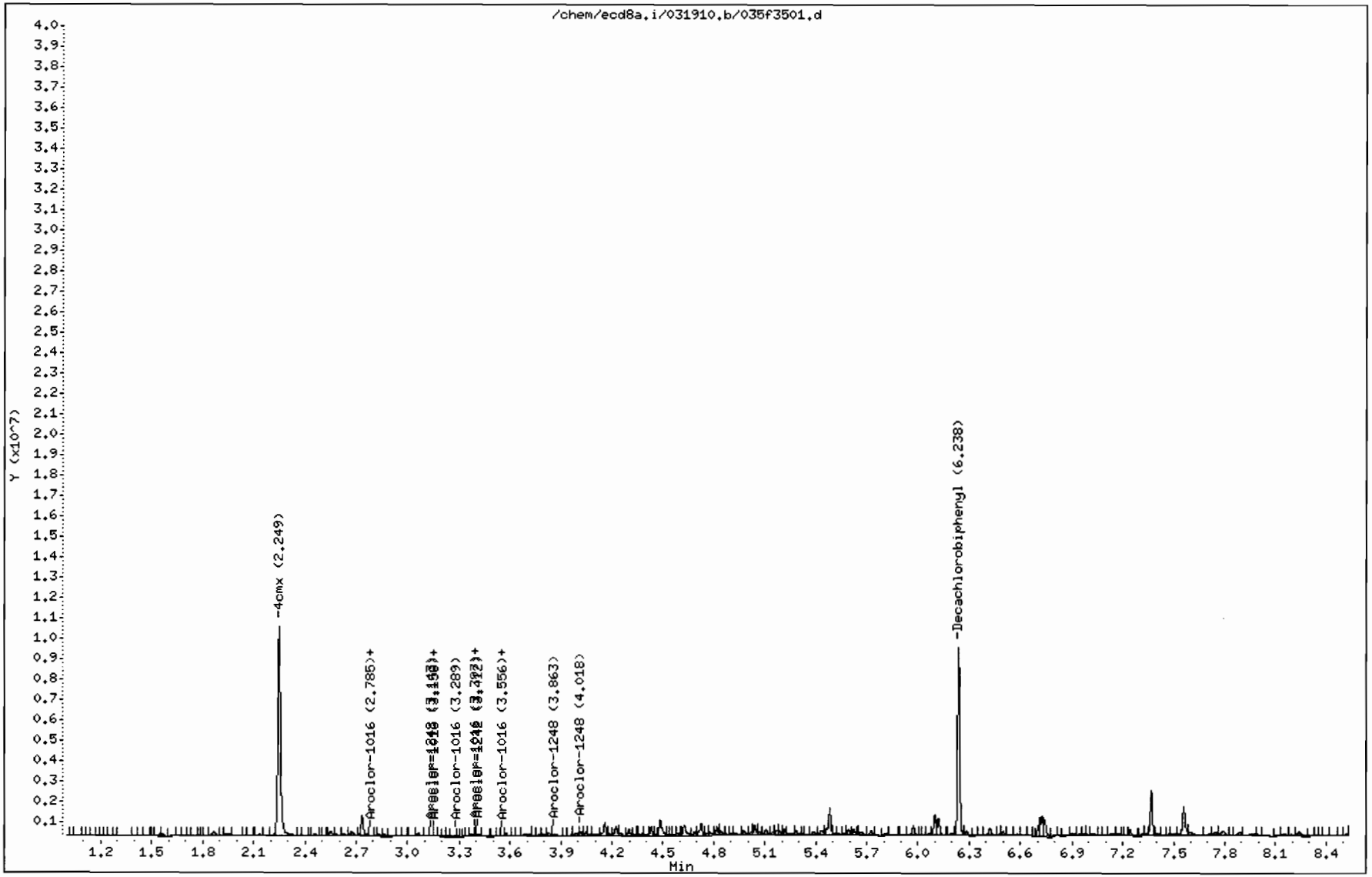
Sample Info: |248517001|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/035b3501.d
Lab Smp Id: 248517001 Client Smp ID: RE36-10-8292
Inj Date : 19-MAR-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248517001|1|
Misc Info : |ECD82P_1S|966420|SVA|LANL|SOIL|RE36-10-8292|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2198.sub
Target Version: 3.50 Sample Matrix: Soil

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

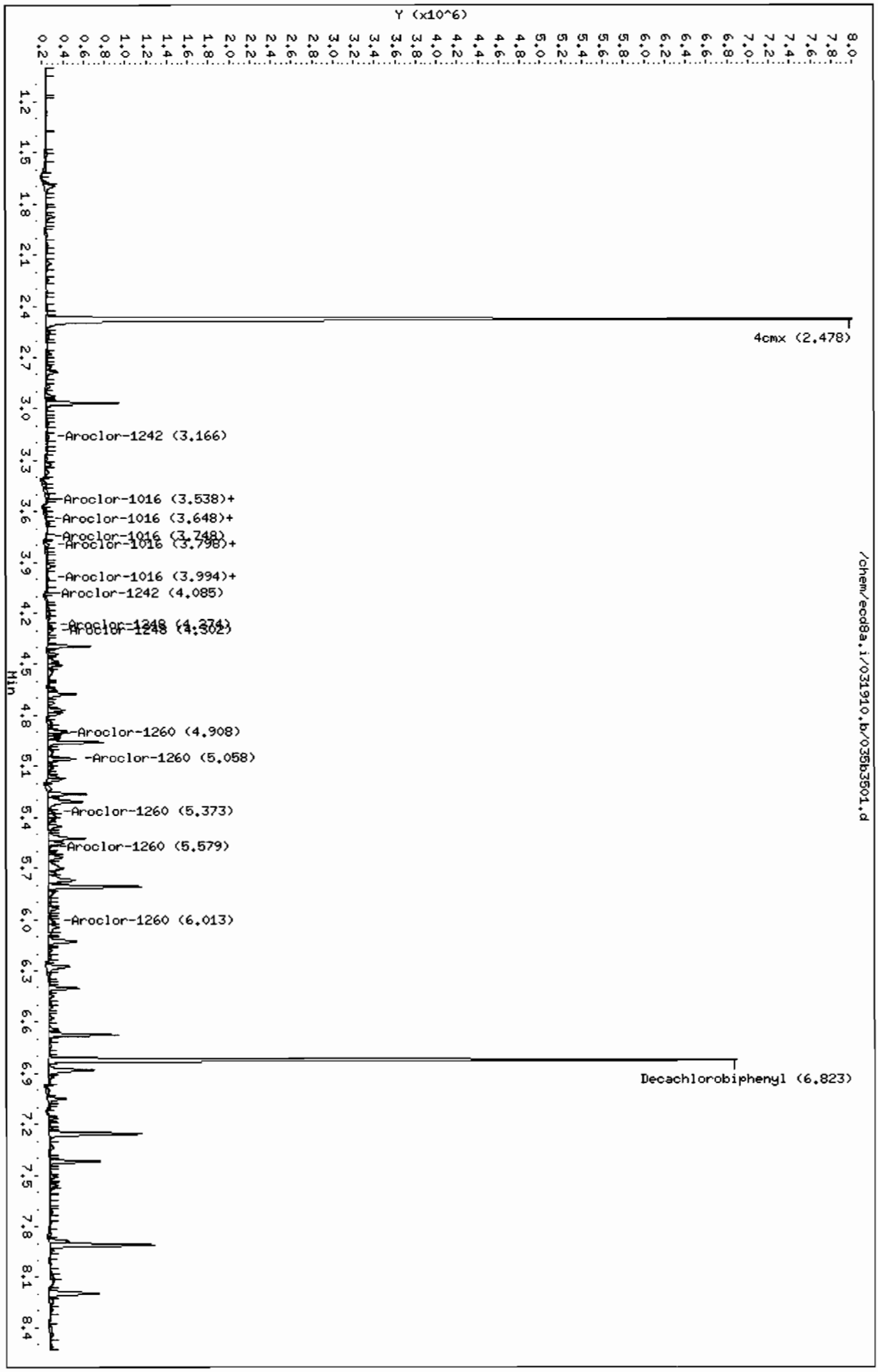
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	22.10250	% Moisture

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		
2.478	2.477	0.001	7917455	94.7267	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	5858974	98.8815	4.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/031910.b/035b3501.d
Date : 19-MAR-2010 14:14
Client ID: RE36-10-8292
Sample Info: 1248517001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25



Page 1

STANDARDS DATA

Report Date: 19-Mar-2010 11:23

Calibration History

Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013f1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007f0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014f1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008f0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015f1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009f0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016f1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010f1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017f1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011f1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 10:52	AR1660	/chem/ecd8a.i/031910.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 09:54	AR1660	/chem/ecd8a.i/031910.b/017f1701.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 09:20	AR1660	/chem/ecd8a.i/031910.b/015f1501.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 08:18	AR1268	/chem/ecd8a.i/031910.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 08:05	AR1262	/chem/ecd8a.i/031910.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:53	AR1221	/chem/ecd8a.i/031910.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:41	AR1242	/chem/ecd8a.i/031910.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:28	AR1232	/chem/ecd8a.i/031910.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:16	AR1248	/chem/ecd8a.i/031910.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:03	AR1242	/chem/ecd8a.i/031910.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 06:39	AR1660	/chem/ecd8a.i/031910.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 06:51	AR1254	/chem/ecd8a.i/031910.b/003f0301.d

Report Date: 19-Mar-2010 11:23

Calibration History

Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013b1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007b0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014b1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008b0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015b1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009b0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016b1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010b1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017b1701.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011b1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 10:52	AR1660	/chem/ecd8a.i/031910.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 09:54	AR1660	/chem/ecd8a.i/031910.b/017b1701.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 09:20	AR1660	/chem/ecd8a.i/031910.b/015b1501.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 08:18	AR1268	/chem/ecd8a.i/031910.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 08:05	AR1262	/chem/ecd8a.i/031910.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:53	AR1221	/chem/ecd8a.i/031910.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:41	AR1242	/chem/ecd8a.i/031910.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:28	AR1232	/chem/ecd8a.i/031910.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:16	AR1248	/chem/ecd8a.i/031910.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 07:03	AR1242	/chem/ecd8a.i/031910.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 06:51	AR1254	/chem/ecd8a.i/031910.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
19-MAR-2010 06:39	AR1660	/chem/ecd8a.i/031910.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 19-Mar-2010 11:00 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.806	2.776-2.836	4.772e+03
	3.157	3.127-3.187	5.397e+03
	3.300	3.270-3.330	2.352e+03
	3.392	3.362-3.422	2.192e+03
	3.555	3.525-3.585	3.079e+03
2 Aroclor-1221	2.389	2.359-2.419	1.568e+03
	2.504	2.474-2.534	9.154e+02
	2.535	2.505-2.565	3.573e+03
3 Aroclor-1232	2.535	2.505-2.565	2.601e+03
	2.806	2.776-2.836	2.261e+03
	3.301	3.271-3.331	1.243e+03
	3.555	3.525-3.585	1.479e+03
	3.617	3.587-3.647	9.227e+02
4 Aroclor-1242	2.806	2.776-2.836	3.974e+03
	3.158	3.128-3.188	4.796e+03
	3.393	3.363-3.423	1.805e+03
	3.410	3.380-3.440	1.889e+03
	3.555	3.525-3.585	2.645e+03
5 Aroclor-1248	3.143	3.113-3.173	2.721e+03
	3.393	3.363-3.423	3.402e+03
	3.555	3.525-3.585	4.371e+03
	3.861	3.831-3.891	5.250e+03
	4.020	3.990-4.050	4.212e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.831	3.801-3.861	4.334e+03
	4.018	3.988-4.048	5.767e+03
	4.214	4.184-4.244	4.459e+03
	4.301	4.271-4.331	7.522e+03
	4.496	4.466-4.526	5.749e+03
7 Aroclor-1260	4.429	4.399-4.459	5.890e+03
	4.625	4.595-4.655	8.495e+03
	4.900	4.870-4.930	5.066e+03
	5.072	5.042-5.102	5.329e+03
	5.483	5.453-5.513	5.641e+03
8 Aroclor-1262	4.331	4.301-4.361	3.367e+03
	4.429	4.399-4.459	5.243e+03
	4.625	4.595-4.655	7.103e+03
	4.901	4.871-4.931	8.580e+03
	5.073	5.043-5.103	7.966e+03
9 Aroclor-1268	5.507	5.477-5.537	1.632e+04
	5.534	5.504-5.564	1.572e+04
	5.667	5.637-5.697	1.207e+04
	5.914	5.884-5.944	6.023e+03
	6.110	6.080-6.140	3.601e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.248	2.218-2.278	1.250e+05
$ 12 Decachlorobiphenyl	6.239	6.209-6.269	8.235e+04
13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 19-Mar-2010 11:01 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.548	3.518-3.578	3.678e+03
	3.648	3.618-3.678	2.551e+03
	3.724	3.694-3.754	1.492e+03
	3.799	3.769-3.829	1.478e+03
	3.995	3.965-4.025	2.025e+03
2 Aroclor-1221	2.718	2.688-2.748	9.481e+02
	2.831	2.801-2.861	5.911e+02
	2.878	2.848-2.908	2.179e+03
3 Aroclor-1232	3.196	3.166-3.226	1.515e+03
	3.550	3.520-3.580	1.744e+03
	3.649	3.619-3.679	1.176e+03
	3.725	3.695-3.755	7.101e+02
	3.800	3.770-3.830	6.182e+02
4 Aroclor-1242	3.196	3.166-3.226	2.677e+03
	3.549	3.519-3.579	3.126e+03
	3.648	3.618-3.678	2.127e+03
	3.996	3.966-4.026	1.703e+03
	4.085	4.055-4.115	1.567e+03
5 Aroclor-1248	3.647	3.617-3.677	1.329e+03
	3.799	3.769-3.829	2.249e+03
	3.995	3.965-4.025	2.790e+03
	4.274	4.244-4.304	3.273e+03
	4.305	4.275-4.335	3.592e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	4.302	4.272-4.332	3.117e+03
		4.441	4.411-4.471	3.478e+03
		4.770	4.740-4.800	4.832e+03
		4.931	4.901-4.961	3.494e+03
		5.057	5.027-5.087	2.202e+03
	7 Aroclor-1260	4.908	4.878-4.938	3.939e+03
		5.057	5.027-5.087	4.730e+03
		5.374	5.344-5.404	3.587e+03
		5.581	5.551-5.611	3.712e+03
		6.012	5.982-6.042	5.841e+03
	8 Aroclor-1262	4.909	4.879-4.939	3.276e+03
		5.058	5.028-5.088	3.827e+03
		5.374	5.344-5.404	5.446e+03
		5.582	5.552-5.612	5.047e+03
		6.010	5.980-6.040	7.196e+03
	9 Aroclor-1268	6.008	5.978-6.038	1.138e+04
		6.040	6.011-6.070	1.041e+04
		6.219	6.189-6.249	8.192e+03
		6.415	6.386-6.446	4.057e+03
		6.645	6.615-6.675	2.464e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.477	2.447-2.507	8.358e+04
$	12 Decachlorobiphenyl	6.824	6.794-6.854	5.925e+04
	13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
	14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
	15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Cal Date : 19-Mar-2010 11:00 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013f1301.d
Level 2: /chem/ecd8a.i/022310.b/014f1401.d
Level 3: /chem/ecd8a.i/022310.b/015f1501.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/022310.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)	5919	5050	4827	4394	3671	4772	17.374
(2)	6305	5464	5600	5079	4539	5397	12.103
(3)	2780	2401	2389	2196	1992	2352	12.417
(4)	2749	2248	2191	2001	1769	2192	16.589
(5)	3808	3166	3086	2824	2511	3079	15.627
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3009	2847	2875	2619	2254	2721	10.891
(2)	3979	3666	3503	3232	2633	3402	14.930
(3)	4974	4644	4593	4148	3497	4371	13.049
(4)	5772	5534	5553	5051	4341	5250	10.905
(5)	4772	4453	4399	4004	3430	4212	12.231
6 Aroclor-1254(1)	4848	4583	4256	4143	3840	4334	9.026
(2)	6355	6045	5692	5573	5168	5767	7.878
(3)	4755	4649	4399	4320	4170	4459	5.382
(4)	7994	7880	7432	7366	6934	7522	5.676
(5)	6153	6013	5632	5615	5334	5749	5.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Cal Date : 19-Mar-2010 11:00 jam00798
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
	7 Aroclor-1260(1)	7147	5970	6060	5488	4785	5890	14.695
	(2)	10103	8518	8810	7994	7052	8495	13.185
	(3)	6142	5086	5206	4683	4213	5066	14.134
	(4)	6261	5444	5587	4872	4481	5329	12.849
	(5)	6525	5540	5787	5277	5076	5641	9.964
	8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
	(2)	5935	5551	5239	5102	4386	5243	10.995
	(3)	7996	7523	7022	6963	6012	7103	10.414
	(4)	9555	9028	8567	8433	7318	8580	9.694
	(5)	8875	8357	7946	7802	6850	7966	9.421
	9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
	(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
	(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
	(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
	(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
	14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
	15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$	11 4cmx	136153	126431	127871	122774	111579	124961	7.155
$	12 Decachlorobiphenyl	95355	82633	85082	76716	71970	82351	10.796

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Cal Date : 19-Mar-2010 11:01 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013b1301.d
Level 2: /chem/ecd8a.i/022310.b/014b1401.d
Level 3: /chem/ecd8a.i/022310.b/015b1501.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/022310.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)	3858	3610	3858	3627	3436	3678	4.905
(2)	2824	2559	2590	2465	2318	2551	7.270
(3)	1619	1461	1511	1446	1422	1492	5.243
(4)	1671	1484	1494	1405	1335	1478	8.500
(5)	2238	2022	2057	1951	1857	2025	6.982
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1413	1408	1337	1299	1188	1329	6.944
(2)	2387	2358	2277	2198	2024	2249	6.480
(3)	2920	2903	2849	2753	2523	2790	5.825
(4)	3350	3368	3334	3259	3054	3273	3.955
(5)	3677	3689	3657	3584	3353	3592	3.894
6 Aroclor-1254(1)	3242	3137	3080	3079	3045	3117	2.483
(2)	3591	3494	3433	3454	3418	3478	1.994
(3)	4854	4823	4800	4853	4830	4832	0.471
(4)	3516	3466	3440	3510	3538	3494	1.145
(5)	2281	2214	2159	2166	2188	2202	2.240

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Cal Date : 19-Mar-2010 11:01 jam00798
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
	7 Aroclor-1260(1)	4310	3885	4025	3827	3646	3939	6.300
	(2)	5135	4638	4867	4591	4421	4730	5.847
	(3)	3916	3515	3674	3464	3365	3587	5.999
	(4)	4033	3615	3813	3590	3510	3712	5.689
	(5)	6224	5645	6036	5678	5624	5841	4.664
	8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
	(2)	4038	3929	3844	3825	3498	3827	5.277
	(3)	5683	5613	5515	5463	4958	5446	5.255
	(4)	5266	5178	5090	5067	4633	5047	4.838
	(5)	7327	7356	7286	7270	6740	7196	3.572
	9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
	(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
	(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
	(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
	(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
	14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
	15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$	11 4cmx	83925	81585	84996	84651	82754	83582	1.685
$	12 Decachlorobiphenyl	64763	57453	61017	56769	56260	59252	6.076

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.: 10-2198

Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 0639

Lab File ID: 002F0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4286.357	0.01	-10.2	15.0
(2)	5397.398	5060.097	0.01	-6.2	15.0
(3)	2351.643	2193.525	0.01	-6.7	15.0
(4)	2191.567	1985.533	0.01	-9.4	15.0
(5)	3078.945	2834.632	0.01	-7.9	15.0
Aroclor-1260	5890.060	5979.285	0.01	1.5	15.0
(2)	8495.287	8802.241	0.01	3.6	15.0
(3)	5066.269	5196.891	0.01	2.6	15.0
(4)	5329.016	5493.408	0.01	3.1	15.0
(5)	5640.982	6142.364	0.01	8.9	15.0
4cmx	124961.40	128759.27	0.01	3.0	15.0
Decachlorobiphenyl	82351.042	90323.340	0.01	9.7	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.: 10-2198

Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 0639

Lab File ID: 002B0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3917.511	0.01	6.5	15.0
(2)	2551.186	2562.521	0.01	0.4	15.0
(3)	1492.032	1521.811	0.01	2.0	15.0
(4)	1477.704	1479.544	0.01	0.1	15.0
(5)	2024.804	2055.367	0.01	1.5	15.0
Aroclor-1260	3938.505	4402.018	0.01	11.8	15.0
(2)	4730.476	5307.034	0.01	12.2	15.0
(3)	3586.650	4021.025	0.01	12.1	15.0
(4)	3712.238	4180.664	0.01	12.6	15.0
(5)	5841.333	6615.558	0.01	13.2	15.0
4cmx	83582.102	91464.330	0.01	9.4	15.0
Decachlorobiphenyl	59252.492	66216.290	0.01	11.8	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.: 10-2198

Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 1157

Lab File ID: 024F2401 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4613.032	0.01	-3.3	15.0
(2)	5397.398	5689.003	0.01	5.4	15.0
(3)	2351.643	2400.712	0.01	2.1	15.0
(4)	2191.567	2129.382	0.01	-2.8	15.0
(5)	3078.945	3082.144	0.01	0.1	15.0
Aroclor-1260	5890.060	6070.707	0.01	3.1	15.0
(2)	8495.287	9081.858	0.01	6.9	15.0
(3)	5066.269	5383.035	0.01	6.2	15.0
(4)	5329.016	5825.588	0.01	9.3	15.0
(5)	5640.982	6272.339	0.01	11.2	15.0
4cmx	124961.40	127278.54	0.01	1.8	15.0
Decachlorobiphenyl	82351.042	92907.720	0.01	12.8	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.: 10-2198

Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 1157

Lab File ID: 024B2401 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3677.771	4146.365	0.01	12.7	15.0	
(2)	2551.186	2710.579	0.01	6.2	15.0	
(3)	1492.032	1633.422	0.01	9.5	15.0	
(4)	1477.704	1564.141	0.01	5.8	15.0	
(5)	2024.804	2157.573	0.01	6.6	15.0	
Aroclor-1260	3938.505	4320.885	0.01	9.7	15.0	
(2)	4730.476	5302.606	0.01	12.1	15.0	
(3)	3586.650	4026.732	0.01	12.3	15.0	
(4)	3712.238	4203.569	0.01	13.2	15.0	
(5)	5841.333	6810.024	0.01	16.6	15.0	<-
4cmx	83582.102	88663.400	0.01	6.1	15.0	
Decachlorobiphenyl	59252.492	68871.140	0.01	16.2	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.: 10-2198

Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 1430

Lab File ID: 036F3601 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4393.749	0.01	-7.9	15.0
(2)	5397.398	5655.854	0.01	4.8	15.0
(3)	2351.643	2318.726	0.01	-1.4	15.0
(4)	2191.567	2099.361	0.01	-4.2	15.0
(5)	3078.945	2945.368	0.01	-4.3	15.0
Aroclor-1260	5890.060	6182.312	0.01	5.0	15.0
(2)	8495.287	9152.196	0.01	7.7	15.0
(3)	5066.269	5366.905	0.01	5.9	15.0
(4)	5329.016	5687.866	0.01	6.7	15.0
(5)	5640.982	6481.184	0.01	14.9	15.0
4cmx	124961.40	129714.87	0.01	3.8	15.0
Decachlorobiphenyl	82351.042	89775.020	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.: 10-2198

Instrument ID: ECD8A Calibration Date: 03/19/10 Time: 1430

Lab File ID: 036B3601 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3677.771	4101.482	0.01	11.5	15.0	
(2)	2551.186	2598.717	0.01	1.9	15.0	
(3)	1492.032	1573.071	0.01	5.4	15.0	
(4)	1477.704	1509.674	0.01	2.2	15.0	
(5)	2024.804	2093.298	0.01	3.4	15.0	
Aroclor-1260	3938.505	4433.168	0.01	12.6	15.0	
(2)	4730.476	5413.639	0.01	14.4	15.0	
(3)	3586.650	4096.662	0.01	14.2	15.0	
(4)	3712.238	4259.720	0.01	14.7	15.0	
(5)	5841.333	6923.268	0.01	18.5	15.0	<-
4cmx	83582.102	91365.090	0.01	9.3	15.0	
Decachlorobiphenyl	59252.492	66844.160	0.01	12.8	15.0	

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/002f0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 19-MAR-2010 06:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
2.248	2.248	0.000	12875927	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.239	0.000	9032334	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	4286357	1000.00	898	80.00- 120.00	100.00
3.157	3.157	0.000	5060097	1000.00	938	98.05- 138.05	118.05
3.300	3.300	0.000	2193525	1000.00	933	31.17- 71.17	51.17
3.392	3.392	0.000	1985533	1000.00	906	26.32- 66.32	46.32
3.555	3.555	0.000	2834632	1000.00	921	46.13- 86.13	66.13
Average of Peak Amounts =					919		
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.429	0.000	5979285	1000.00	1020	80.00- 120.00	100.00
4.625	4.625	0.000	8802240	1000.00	1040	127.21- 167.21	147.21
4.900	4.900	0.000	5196891	1000.00	1020	66.91- 106.91	86.91
5.072	5.072	0.000	5493407	1000.00	1030	71.87- 111.87	91.87
5.483	5.483	0.000	6142364	1000.00	1090	82.73- 122.73	102.73
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd8a.i/031910.b/002f0201.d

Date : 19-MAR-2010 06:39

Client ID: AR166001

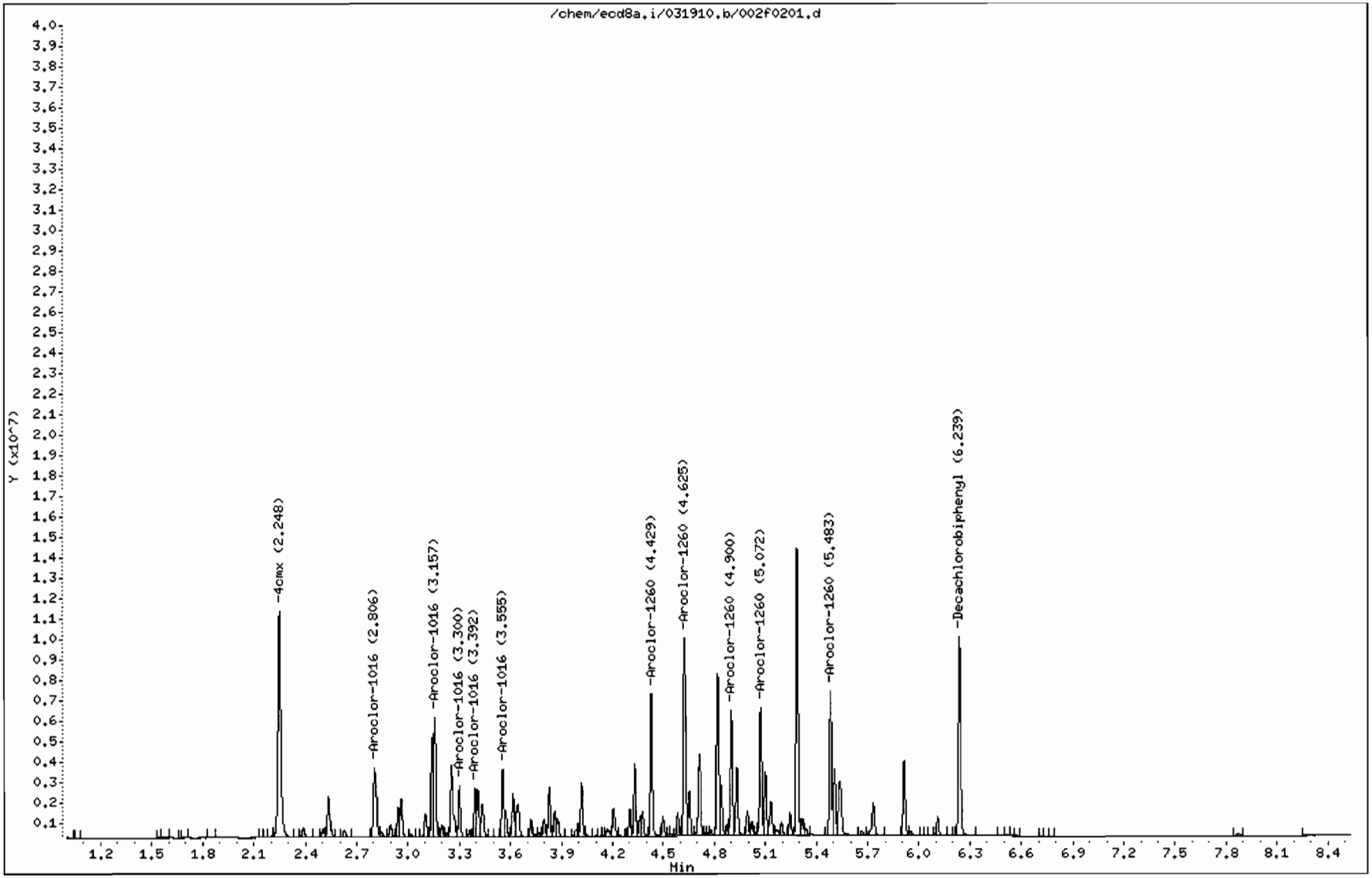
Sample Info: IWAR100224-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/002b0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 19-MAR-2010 06:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
2.477	2.477	0.000	9146433	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	6621629	100.000	112	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3917511	1000.00	1060	80.00- 120.00	100.00
3.648	3.648	0.000	2562521	1000.00	1000	45.41- 85.41	65.41
3.724	3.724	0.000	1521811	1000.00	1020	18.85- 58.85	38.85
3.799	3.799	0.000	1479544	1000.00	1000	17.77- 57.77	37.77
3.995	3.995	0.000	2055367	1000.00	1020	32.47- 72.47	52.47
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.908	0.000	4402018	1000.00	1120	80.00- 120.00	100.00
5.057	5.057	0.000	5307034	1000.00	1120	100.56- 140.56	120.56
5.374	5.374	0.000	4021024	1000.00	1120	71.35- 111.35	91.35
5.581	5.581	0.000	4180664	1000.00	1130	74.97- 114.97	94.97
6.012	6.012	0.000	6615557	1000.00	1130	130.28- 170.28	150.28
Average of Peak Amounts =					1.12e+03		

Data File: /chem/ecd8a.i/031910.b/002b0201.d

Date : 19-MAR-2010 06:39

Client ID: AR166001

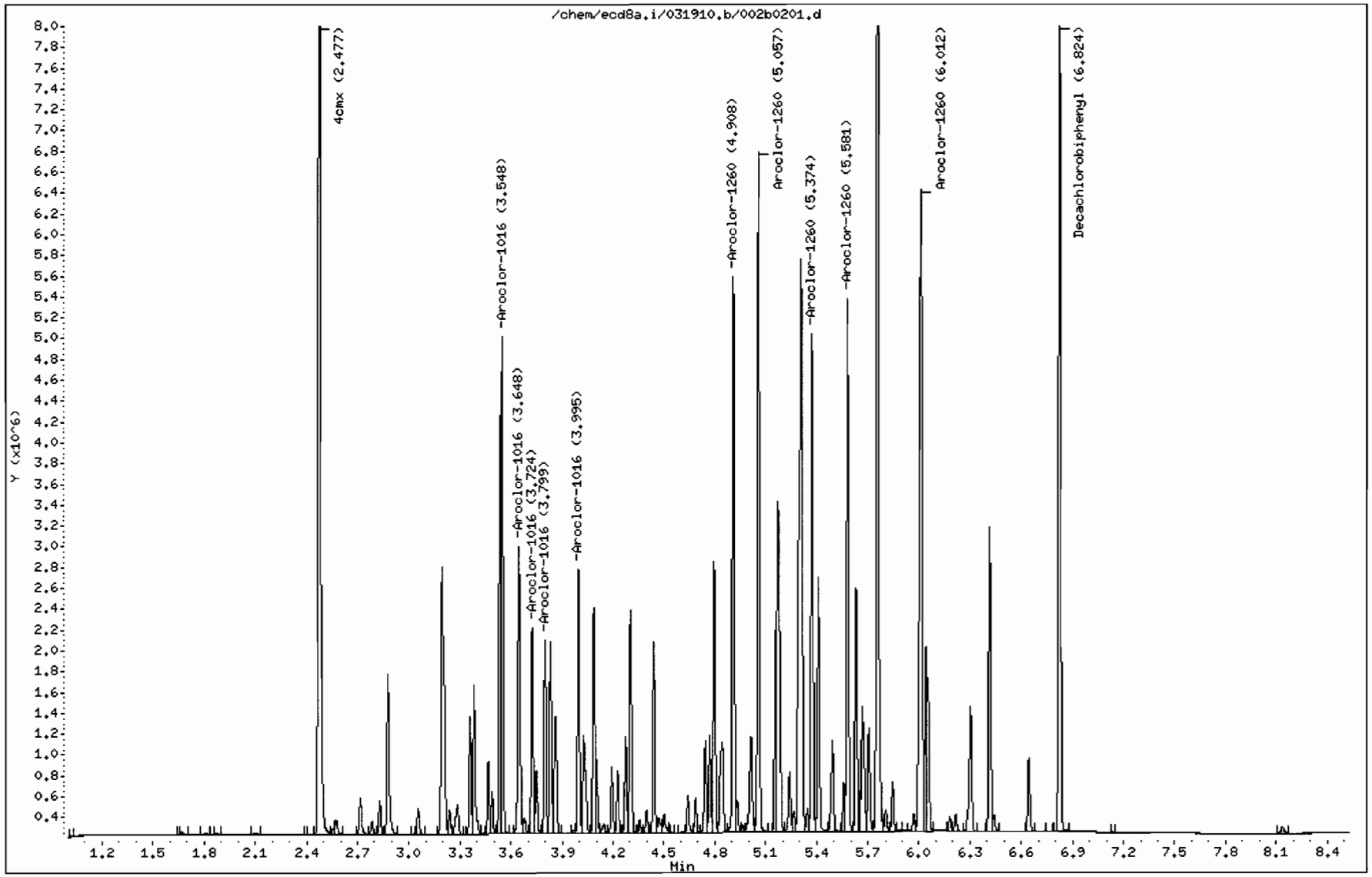
Sample Info: IWAR100224-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/003f0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 19-MAR-2010 06:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
3.831	3.831	0.000	4222327	1000.00	974	80.00- 120.00	100.00
4.018	4.018	0.000	5675120	1000.00	984	114.41- 154.41	134.41
4.214	4.214	0.000	4397426	1000.00	986	84.15- 124.15	104.15
4.301	4.301	0.000	7412798	1000.00	986	155.56- 195.56	175.56
4.496	4.496	0.000	5627866	1000.00	979	113.29- 153.29	133.29
Average of Peak Amounts =					982		

Data File: /chem/ecd8a.i/031910.b/003f0301.d

Date : 19-MAR-2010 06:51

Client ID: AR125401

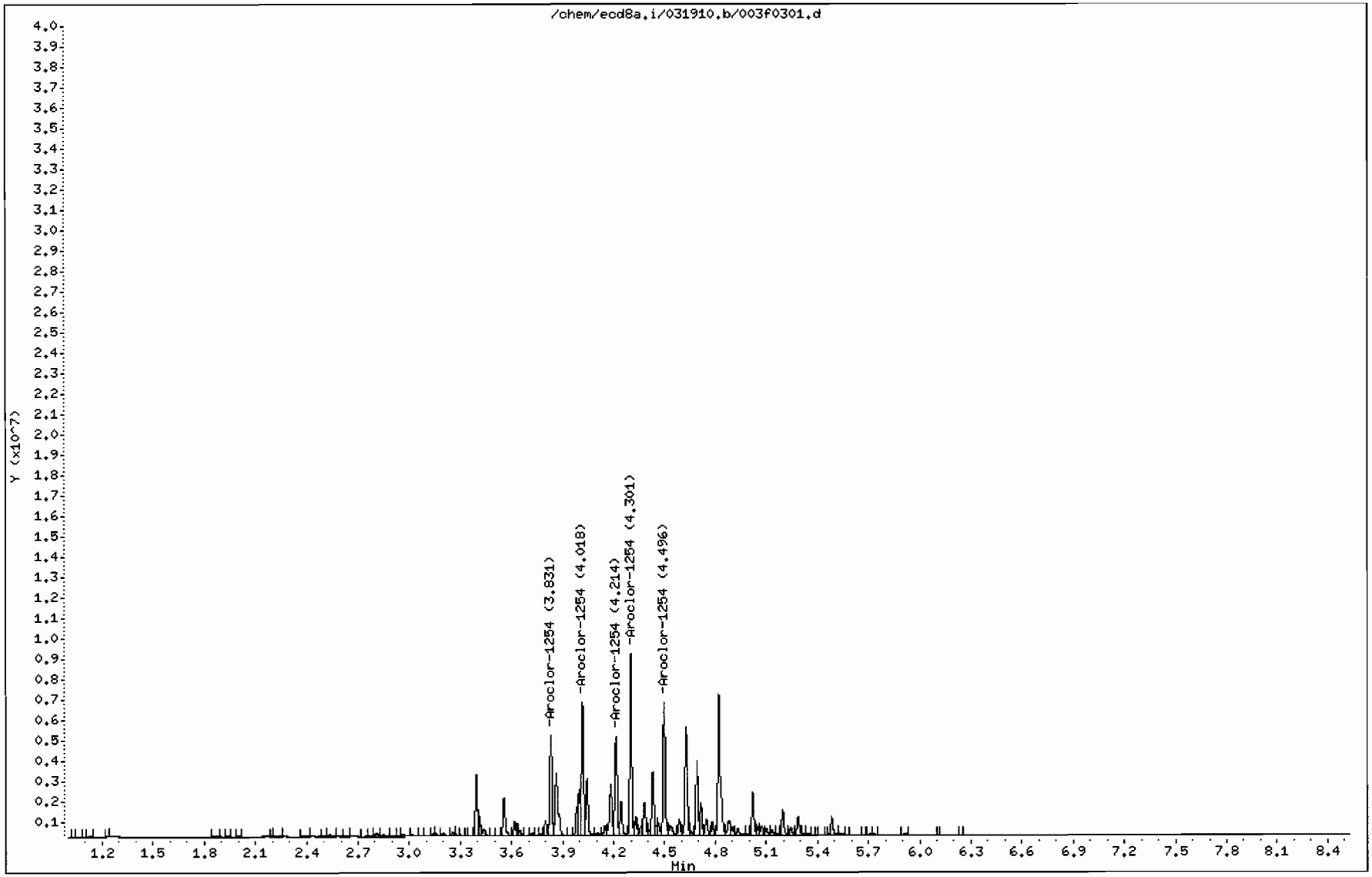
Sample Info: IWAR100201-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/003b0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 19-MAR-2010 06:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
4.302	4.302	0.000	3335653	1000.00	1070	80.00- 120.00	100.00
4.441	4.441	0.000	3737473	1000.00	1070	92.05- 132.05	112.05
4.770	4.770	0.000	5294975	1000.00	1100	138.74- 178.74	158.74
4.931	4.931	0.000	3806287	1000.00	1090	94.11- 134.11	114.11
5.057	5.057	0.000	2377634	1000.00	1080	51.28- 91.28	71.28

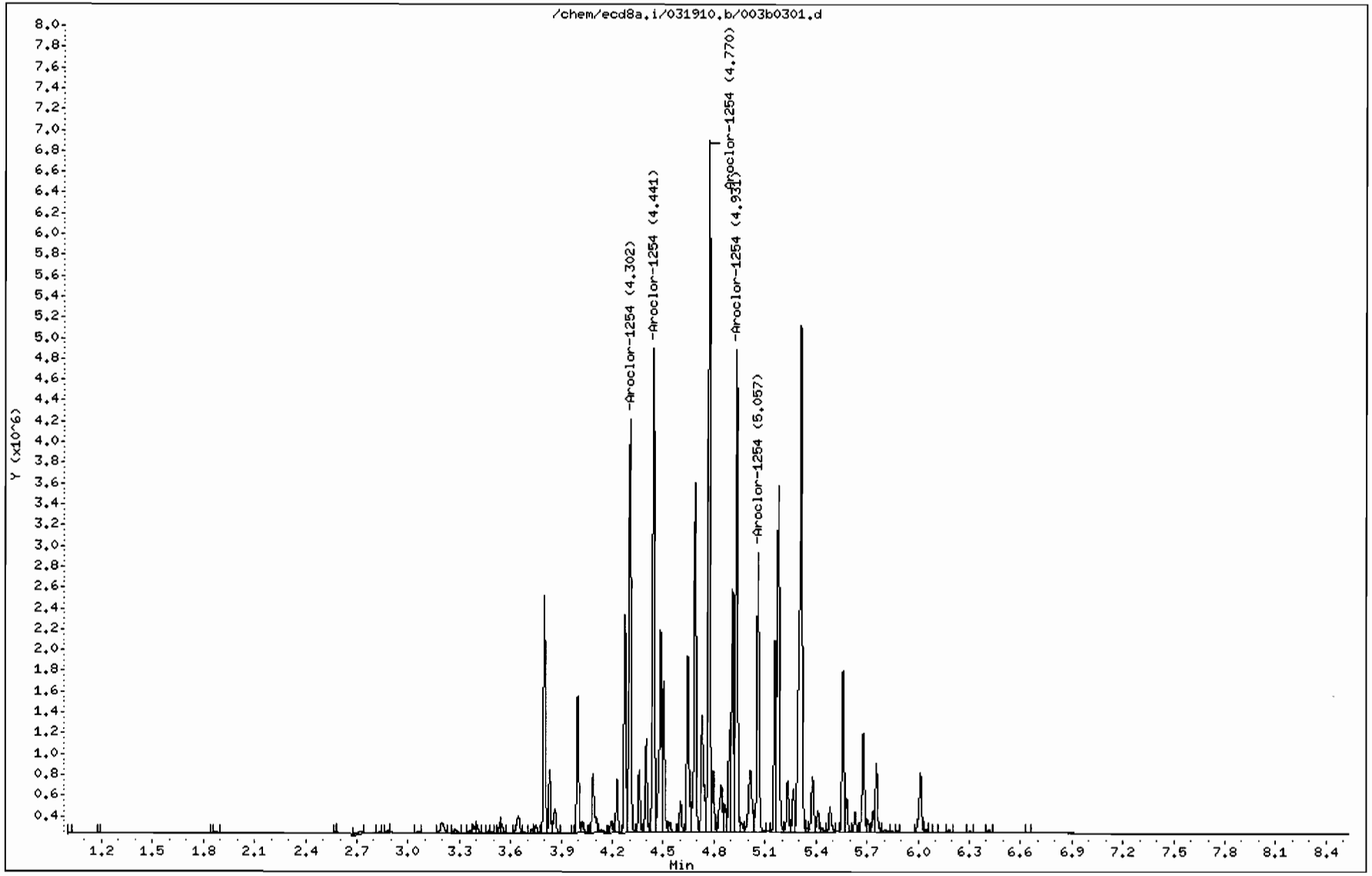
Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd8a.i/031910.b/003b0301.d
Date : 19-MAR-2010 06:51
Client ID: AR125401
Sample Info: IWAR100201-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 19-MAR-2010 07:16
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
3.143	3.143	0.000	2752075	1000.00	1010	80.00- 120.00	100.00
3.393	3.393	0.000	3438089	1000.00	1010	104.93- 144.93	124.93
3.555	3.555	0.000	4535331	1000.00	1040	144.80- 184.80	164.80
3.861	3.861	0.000	5414118	1000.00	1030	176.73- 216.73	196.73
4.020	4.020	0.000	4303271	1000.00	1020	136.36- 176.36	156.36

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd8a.i/031910.b/005f0501.d

Date : 19-MAR-2010 07:16

Client ID: AR124801

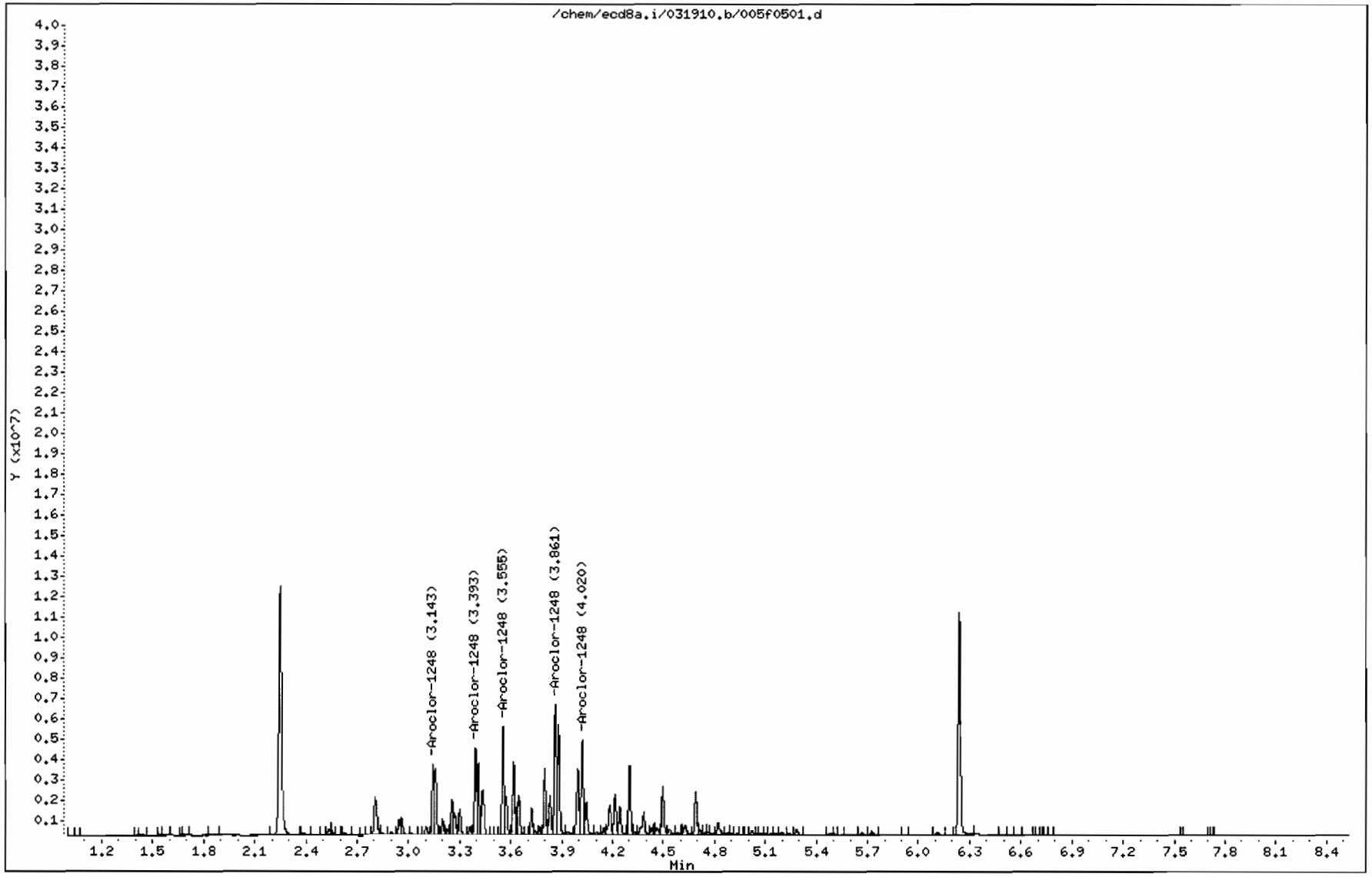
Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 19-MAR-2010 07:16
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
3.647	3.647	0.000	1420732	1000.00	1070	80.00- 120.00	100.00
3.799	3.799	0.000	2480367	1000.00	1100	154.58- 194.58	174.58
3.995	3.995	0.000	3136554	1000.00	1120	200.77- 240.77	220.77
4.274	4.274	0.000	3630907	1000.00	1110	235.57- 275.57	255.57
4.305	4.305	0.000	4010605	1000.00	1120	262.29- 302.29	282.29

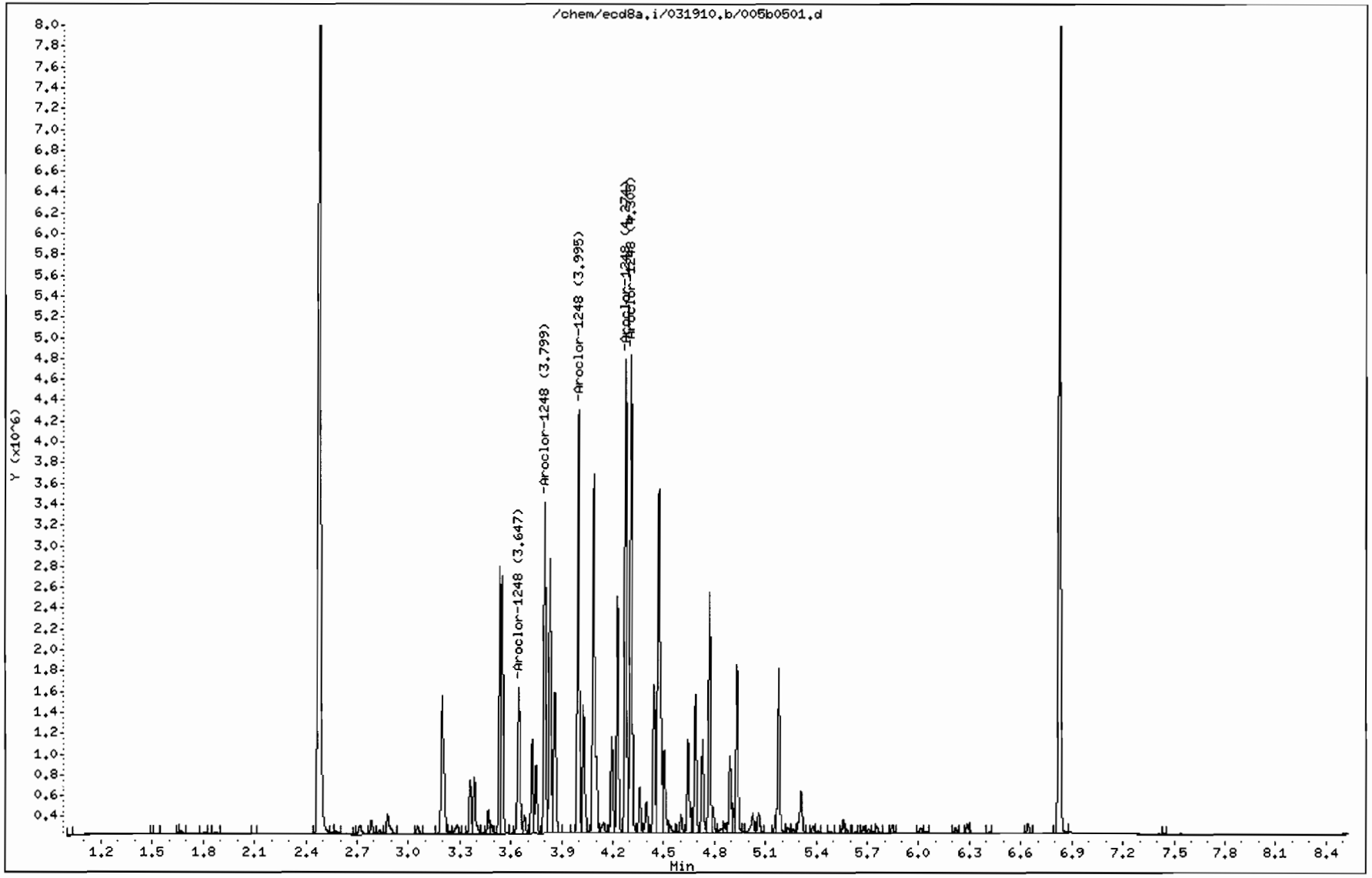
Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd8a.i/031910.b/005b0501.d
Date : 19-MAR-2010 07:16
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 19-MAR-2010 07:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
2.535	2.535	0.000	2583412	1000.00	993	80.00- 120.00	100.00
2.806	2.806	0.000	2297626	1000.00	1020	68.94- 108.94	88.94
3.301	3.301	0.000	1209423	1000.00	973	26.81- 66.81	46.81
3.555	3.555	0.000	1469653	1000.00	994	36.89- 76.89	56.89
3.617	3.617	0.000	892726	1000.00	968	14.56- 54.56	34.56
Average of Peak Amounts =					989		

Data File: /chem/ecd8a.i/031910.b/006f0601.d

Page 1

Date : 19-MAR-2010 07:28

Client ID: AR123201

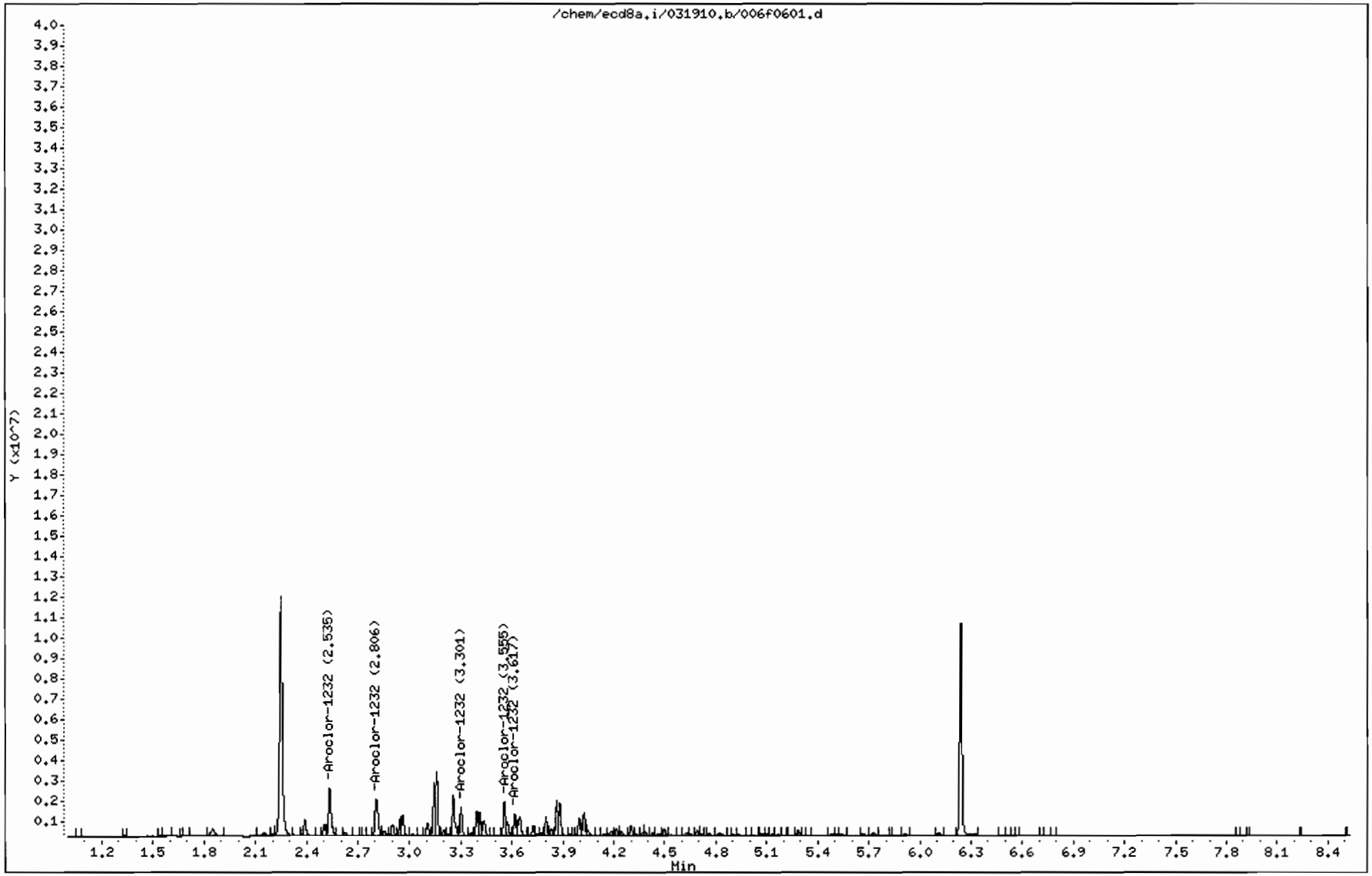
Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 19-MAR-2010 07:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 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		
3.196	3.196	0.000	1644508	1000.00	1080	80.00- 120.00	100.00
3.550	3.550	0.000	1853071	1000.00	1060	92.68- 132.68	112.68
3.649	3.649	0.000	1276686	1000.00	1080	57.63- 97.63	77.63
3.725	3.725	0.000	764238	1000.00	1080	26.47- 66.47	46.47
3.800	3.800	0.000	661174	1000.00	1070	20.20- 60.20	40.20

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd8a.i/031910.b/006b0601.d

Date : 19-MAR-2010 07:28

Client ID: AR123201

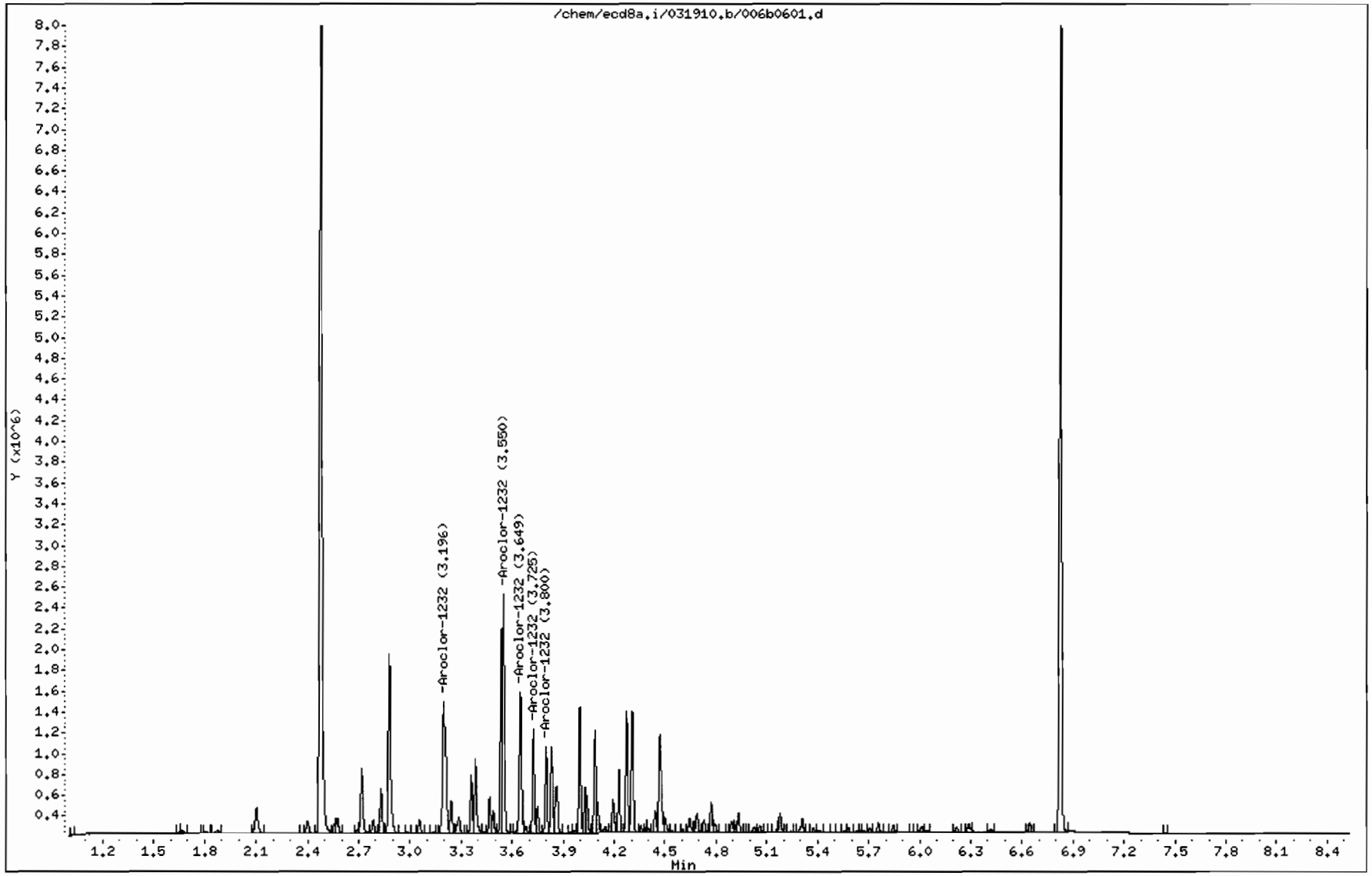
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/007f0701.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 19-MAR-2010 07:41
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 7 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		
2.806	2.806	0.000	3922702	1000.00	987	80.00- 120.00	100.00
3.158	3.158	0.000	4754360	1000.00	991	101.20- 141.20	121.20
3.393	3.393	0.000	1772243	1000.00	982	25.18- 65.18	45.18
3.410	3.410	0.000	1842315	1000.00	975	26.97- 66.97	46.97
3.555	3.555	0.000	2638042	1000.00	997	47.25- 87.25	67.25
Average of Peak Amounts =					986		

Data File: /chem/ecd8a.i/031910.b/007f0701.d

Page 1

Date : 19-MAR-2010 07:41

Client ID: AR124201

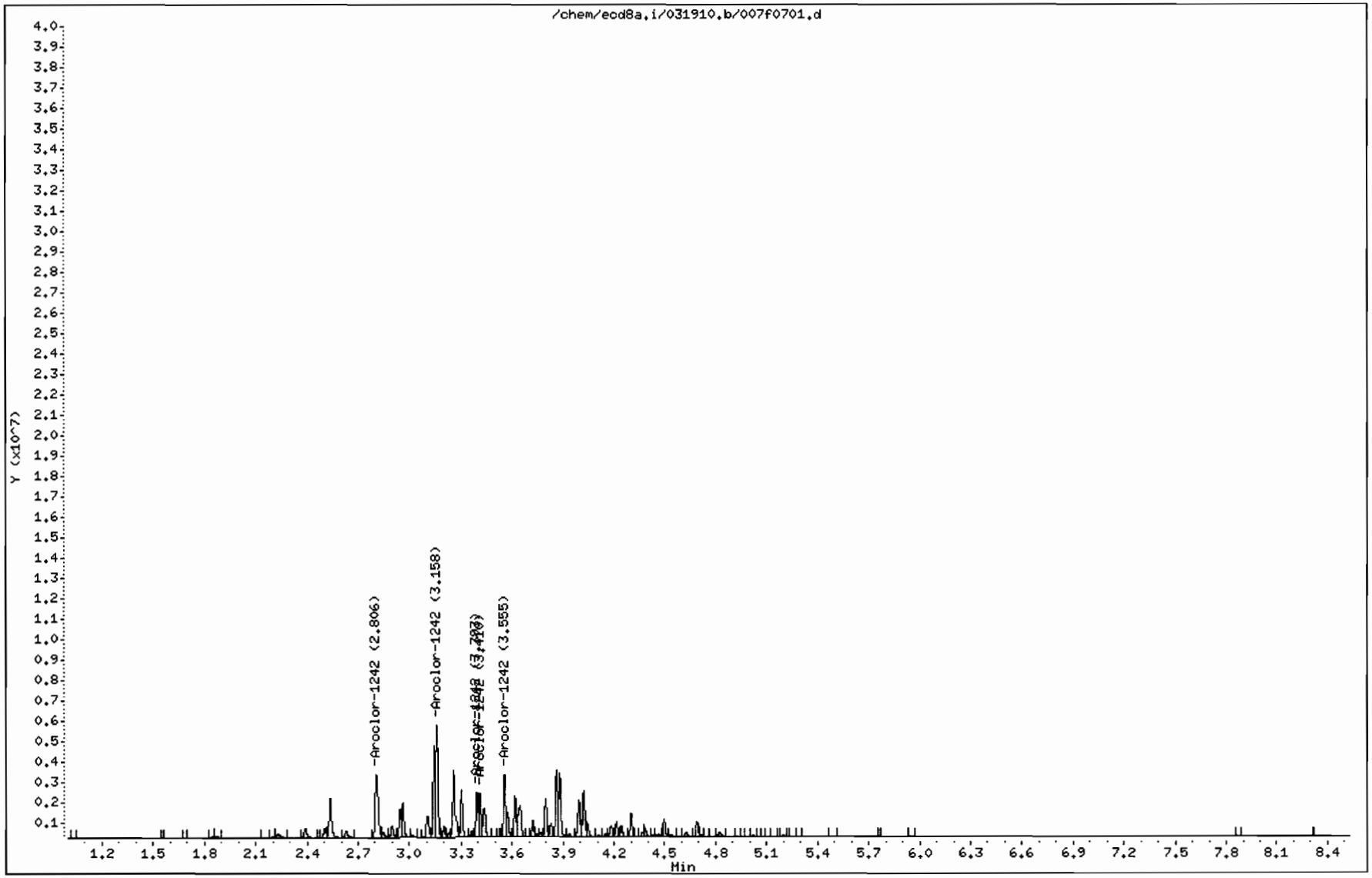
Instrument: ecd8a.i

Sample Info: IWAR091217-42

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/007b0701.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 19-MAR-2010 07:41
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 7 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		
3.196	3.196	0.000	2778356	1000.00	1040	80.00- 120.00	100.00
3.549	3.549	0.000	3284736	1000.00	1050	98.23- 138.23	118.23
3.648	3.648	0.000	2222554	1000.00	1040	60.00- 100.00	80.00
3.996	3.996	0.000	1787089	1000.00	1050	44.32- 84.32	64.32
4.085	4.085	0.000	1667701	1000.00	1060	40.02- 80.02	60.02

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/031910.b/007b0701.d

Date : 19-MAR-2010 07:41

Client ID: AR124201

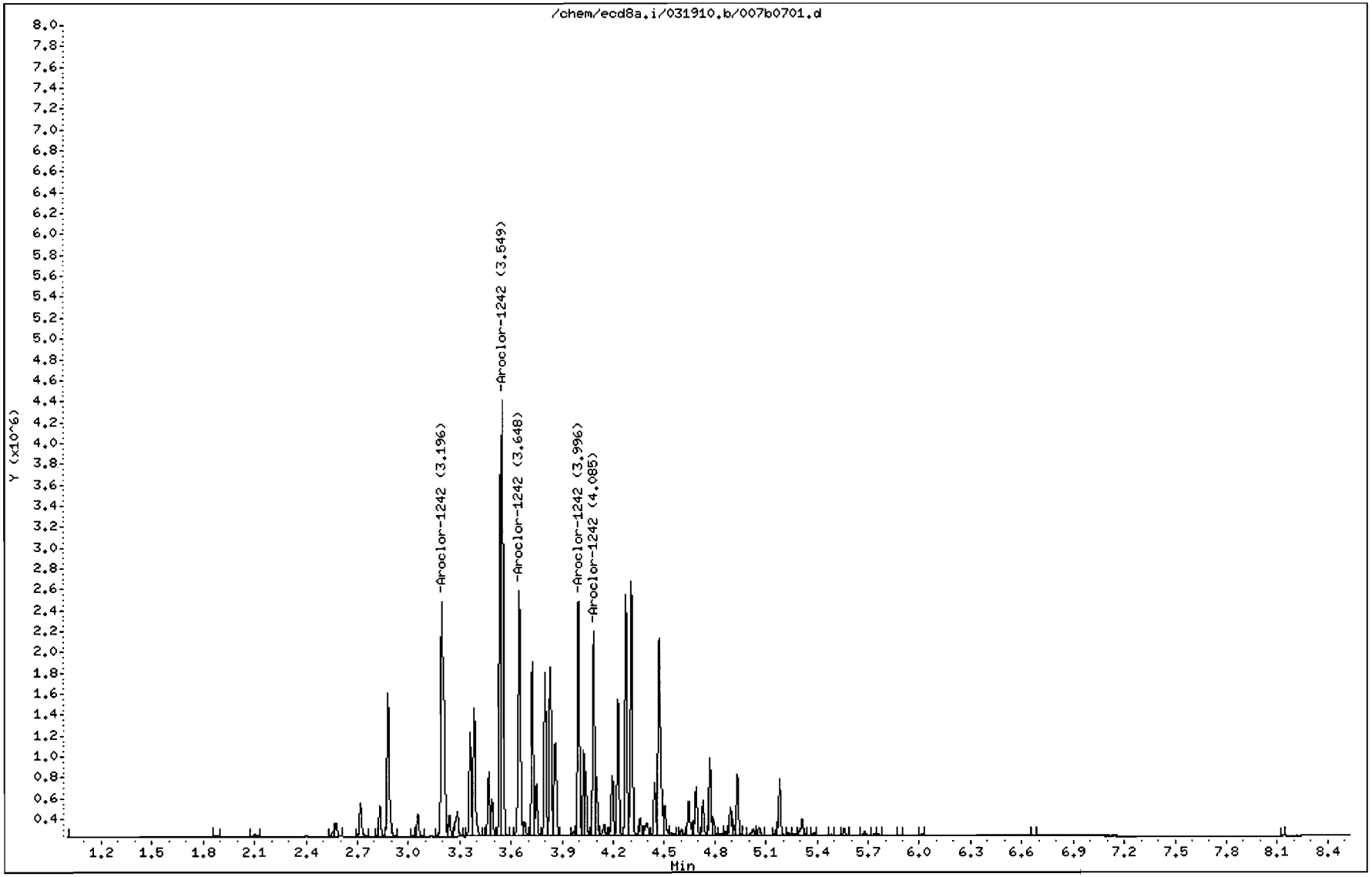
Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 19-MAR-2010 07:53
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 8 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		
2.389	2.389	0.000	1552354	1000.00	990	80.00- 120.00	100.00
2.504	2.504	0.000	928114	1000.00	1010	39.79- 79.79	59.79
2.535	2.535	0.000	3519121	1000.00	985	206.70- 246.70	226.70
Average of Peak Amounts =					996		

Data File: /chem/ecd8a.i/031910.b/008f0801.d

Page 1

Date : 19-MAR-2010 07:53

Client ID: AR122101

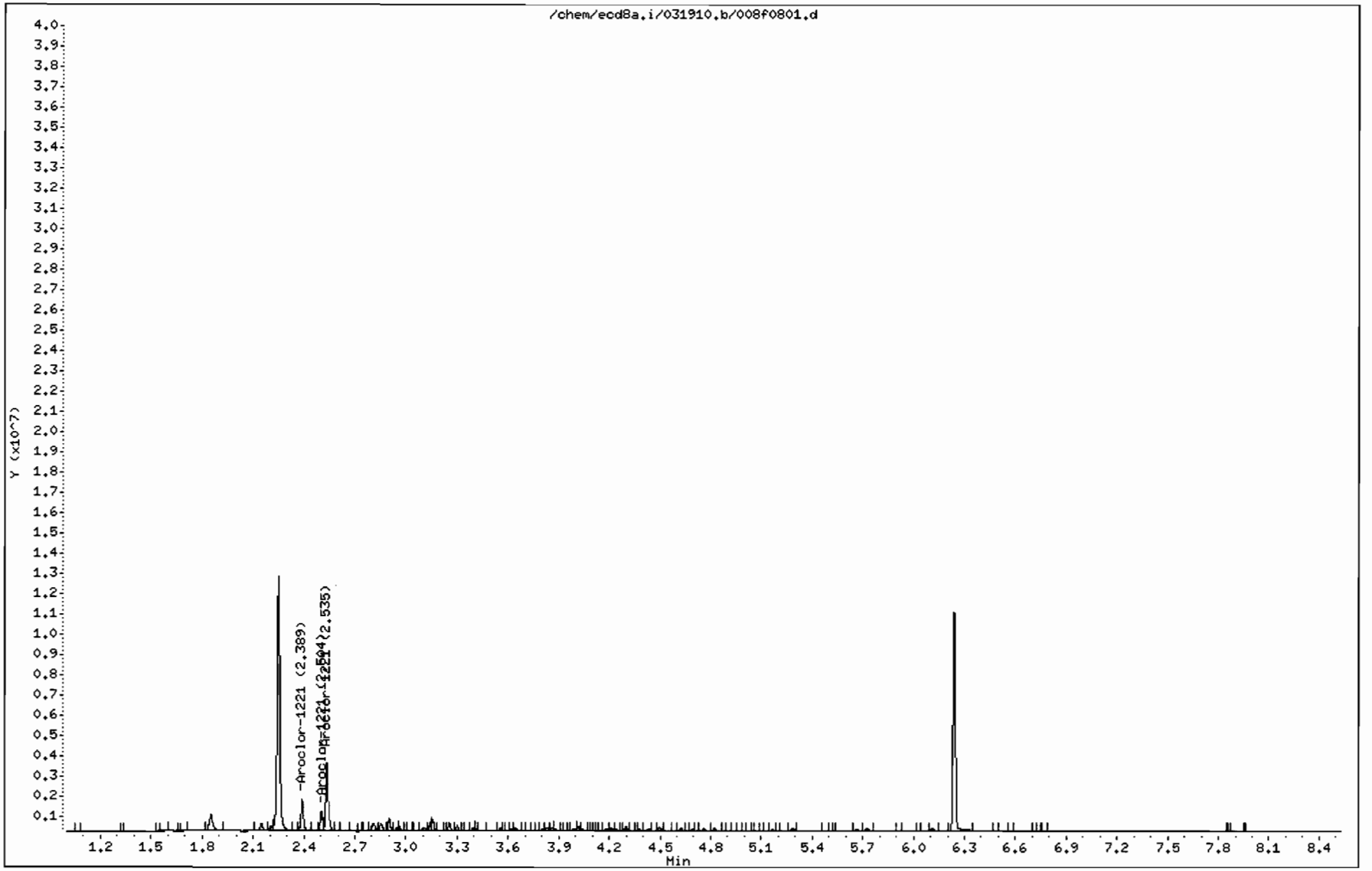
Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 19-MAR-2010 07:53
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 19-Mar-2010 09:16 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 8 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		
2.718	2.718	0.000	1062381	1000.00	1120	80.00- 120.00	100.00
2.831	2.831	0.000	641378	1000.00	1080	40.37- 80.37	60.37
2.878	2.878	0.000	2339109	1000.00	1070	200.18- 240.18	220.18

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd8a.i/031910.b/008b0801.d

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Date : 19-MAR-2010 07:53

Client ID: AR122101

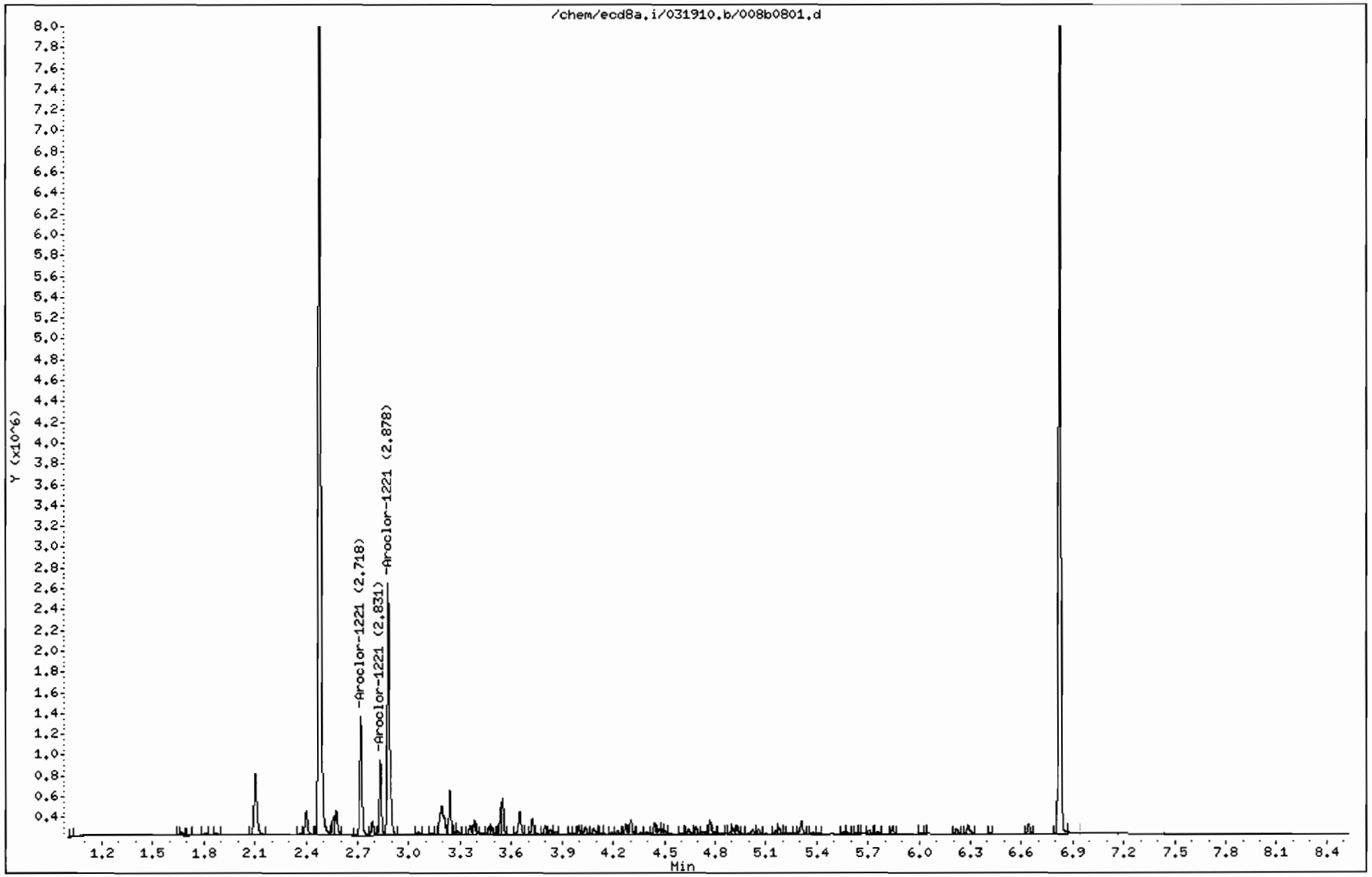
Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/024f2401.d
Lab Smp Id: WAR100319-60 Client Smp ID: AR166006
Inj Date : 19-MAR-2010 11:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100319-60
Misc Info :
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 24 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		
2.254	2.248	0.006	12727854	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.239	0.007	9290772	100.000	113	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.806	0.006	4613032	1000.00	967	80.00- 120.00	100.00
3.164	3.157	0.007	5689003	1000.00	1050	107.11- 147.11	123.32
3.307	3.300	0.007	2400712	1000.00	1020	32.79- 72.79	52.04
3.400	3.392	0.008	2129382	1000.00	972	25.87- 65.87	46.16
3.562	3.555	0.007	3082144	1000.00	1000	47.87- 87.87	66.81
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.429	0.007	6070707	1000.00	1030	80.00- 120.00	100.00
4.631	4.625	0.006	9081858	1000.00	1070	126.91- 166.91	149.60
4.906	4.900	0.006	5383035	1000.00	1060	64.82- 104.82	88.67
5.079	5.072	0.007	5825588	1000.00	1090	70.18- 110.18	95.96
5.490	5.483	0.007	6272339	1000.00	1110	76.66- 116.66	103.32
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd8a.i/031910.b/024f2401.d

Date : 19-MAR-2010 11:57

Client ID: AR166006

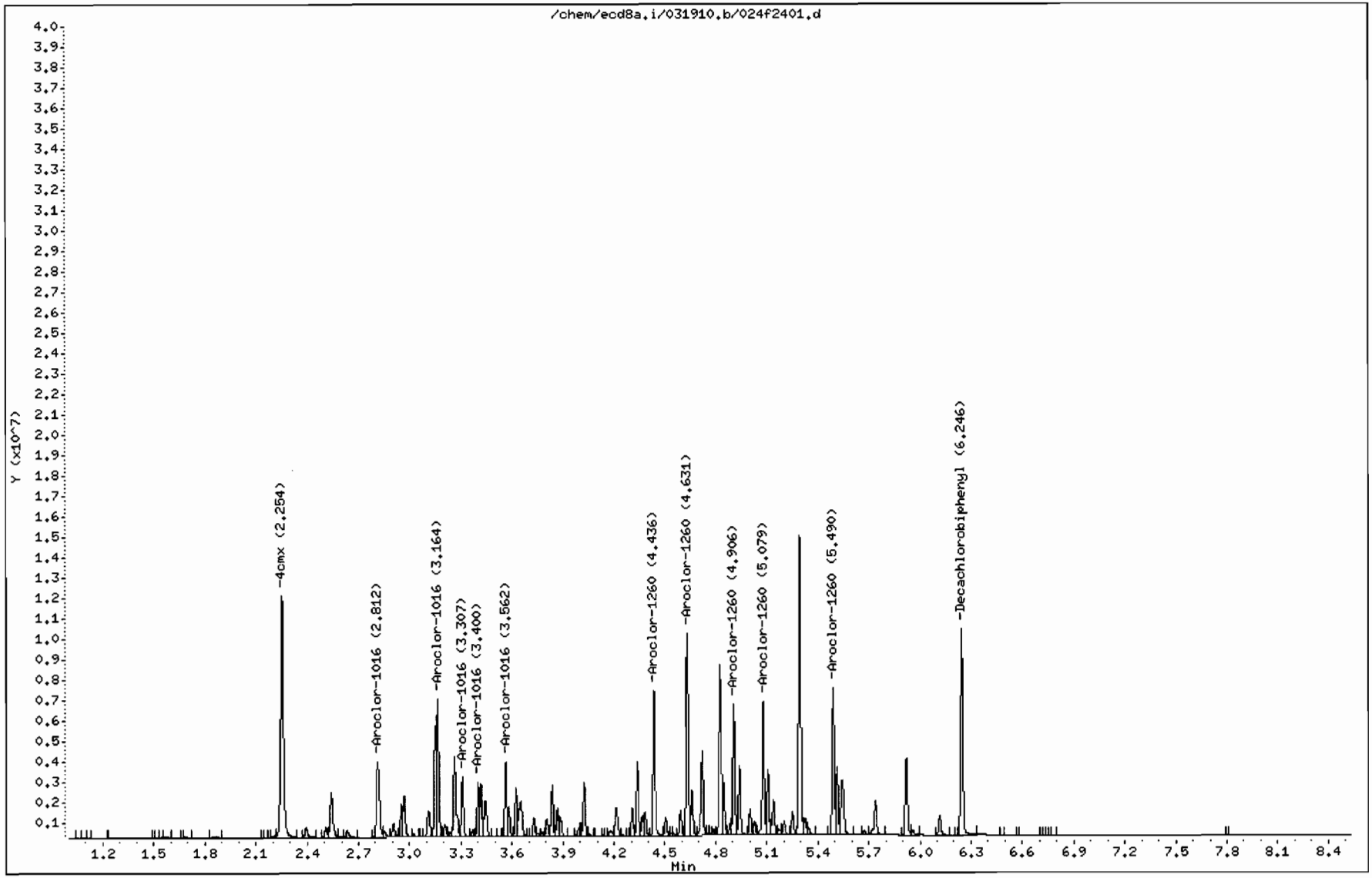
Sample Info: IWAR100319-60

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/024b2401.d
Lab Smp Id: WAR100319-60 Client Smp ID: AR166006
Inj Date : 19-MAR-2010 11:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100319-60
Misc Info :
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 24 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		
2.480	2.477	0.003	8866340	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.827	6.824	0.003	6887114	100.000	116	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.552	3.548	0.004	4146365	1000.00	1130	80.00- 120.00	100.00
3.651	3.648	0.003	2710579	1000.00	1060	44.99- 84.99	65.37
3.727	3.724	0.003	1633422	1000.00	1090	19.11- 59.11	39.39
3.803	3.799	0.004	1564141	1000.00	1060	17.60- 57.60	37.72
3.999	3.995	0.004	2157573	1000.00	1060	31.73- 71.73	52.04
Average of Peak Amounts =					1.08e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.911	4.908	0.003	4320885	1000.00	1100	80.00- 120.00	100.00
5.061	5.057	0.004	5302606	1000.00	1120	101.80- 141.80	122.72
5.377	5.374	0.003	4026732	1000.00	1120	71.56- 111.56	93.19
5.584	5.581	0.003	4203569	1000.00	1130	75.46- 115.46	97.28
6.016	6.012	0.004	6810024	1000.00	1160	132.73- 172.73	157.61
Average of Peak Amounts =					1.13e+03		

Data File: /chem/ecd8a.i/031910.b/024b2401.d

Date : 19-MAR-2010 11:57

Client ID: AR166006

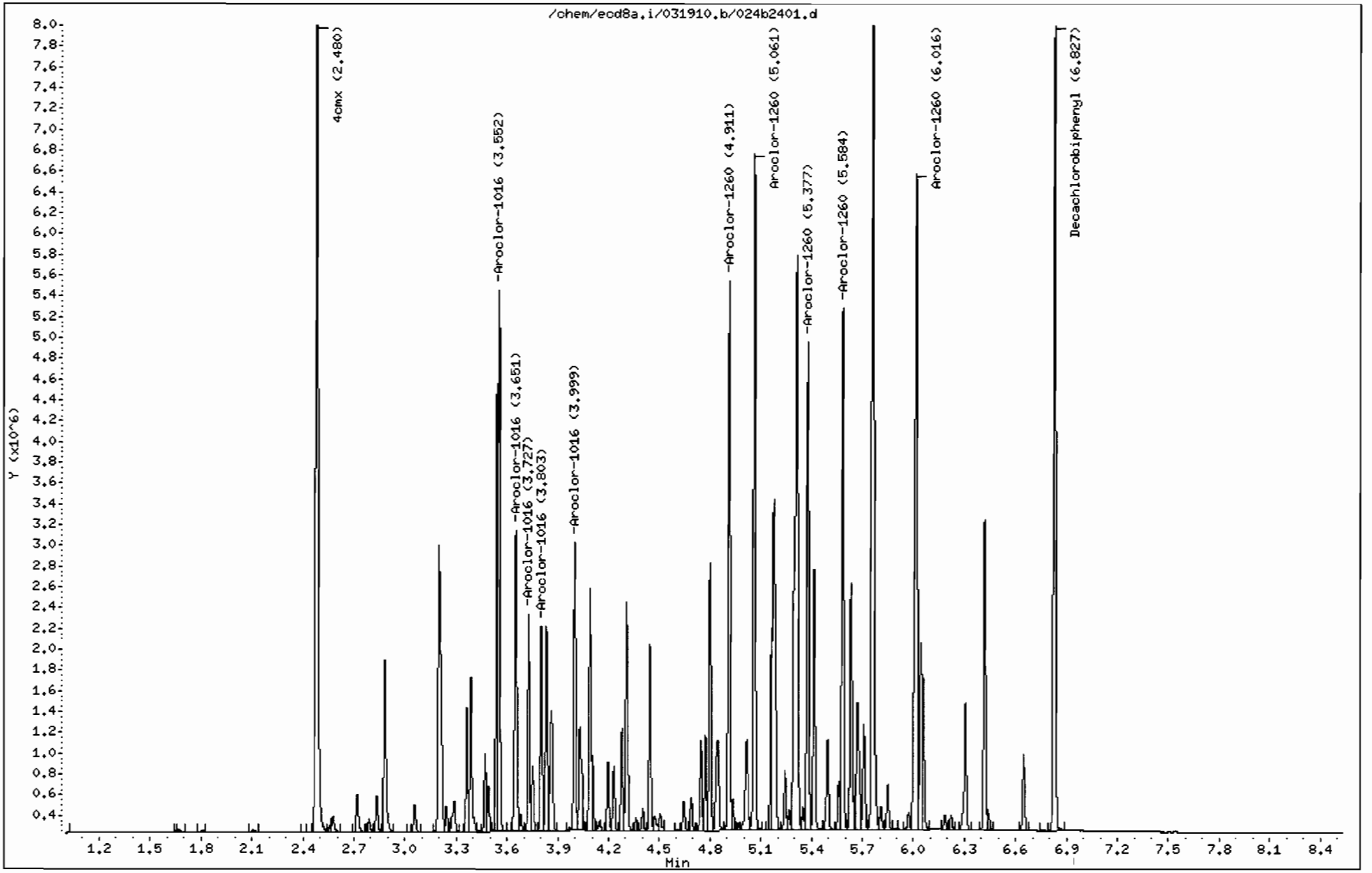
Sample Info: IWAR100319-60

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/036f3601.d
Lab Smp Id: WAR100319-60 07 Client Smp ID: AR166007
Inj Date : 19-MAR-2010 14:30
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100319-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 36 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		
2.248	2.248	0.000	12971487	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.239	-0.002	8977502	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	4393749	1000.00	921	80.00- 120.00	100.00(M)
3.156	3.157	-0.001	5655854	1000.00	1050	107.11- 147.11	128.73
3.299	3.300	-0.001	2318726	1000.00	986	32.79- 72.79	52.77
3.391	3.392	-0.001	2099361	1000.00	958	25.87- 65.87	47.78
3.554	3.555	-0.001	2945368	1000.00	957	47.87- 87.87	67.04
Average of Peak Amounts =					974		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.429	-0.002	6182312	1000.00	1050	80.00- 120.00	100.00(M)
4.623	4.625	-0.002	9152196	1000.00	1080	126.91- 166.91	148.04
4.898	4.900	-0.002	5366905	1000.00	1060	64.82- 104.82	86.81
5.070	5.072	-0.002	5687866	1000.00	1070	70.18- 110.18	92.00
5.481	5.483	-0.002	6481184	1000.00	1150	76.66- 116.66	104.83
Average of Peak Amounts =					1.08e+03		

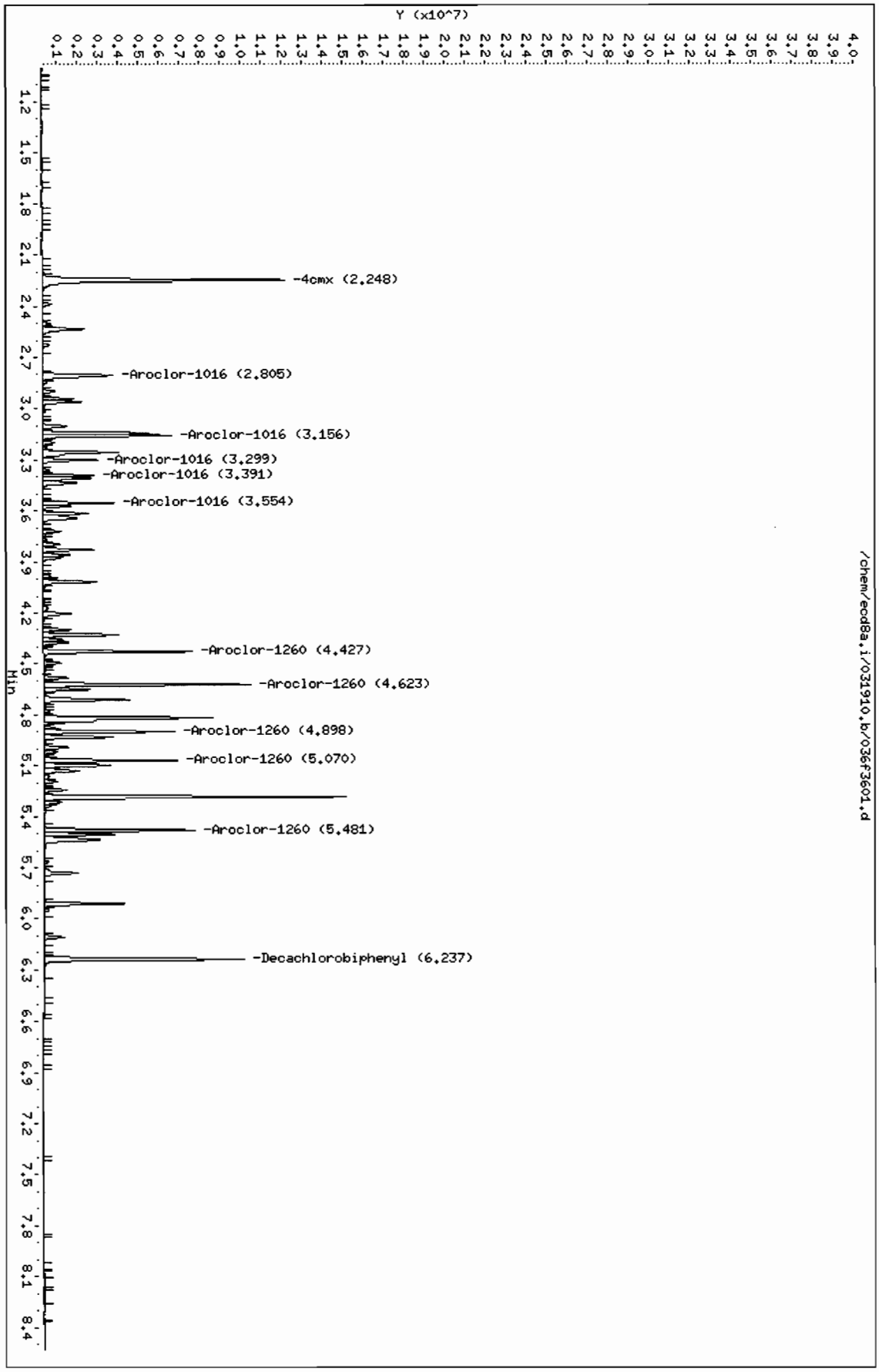
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/031910.b/036f3601.d
Date : 19-MAR-2010 14:30
Client ID: AR166007
Sample Info: IWAR100319-60 07

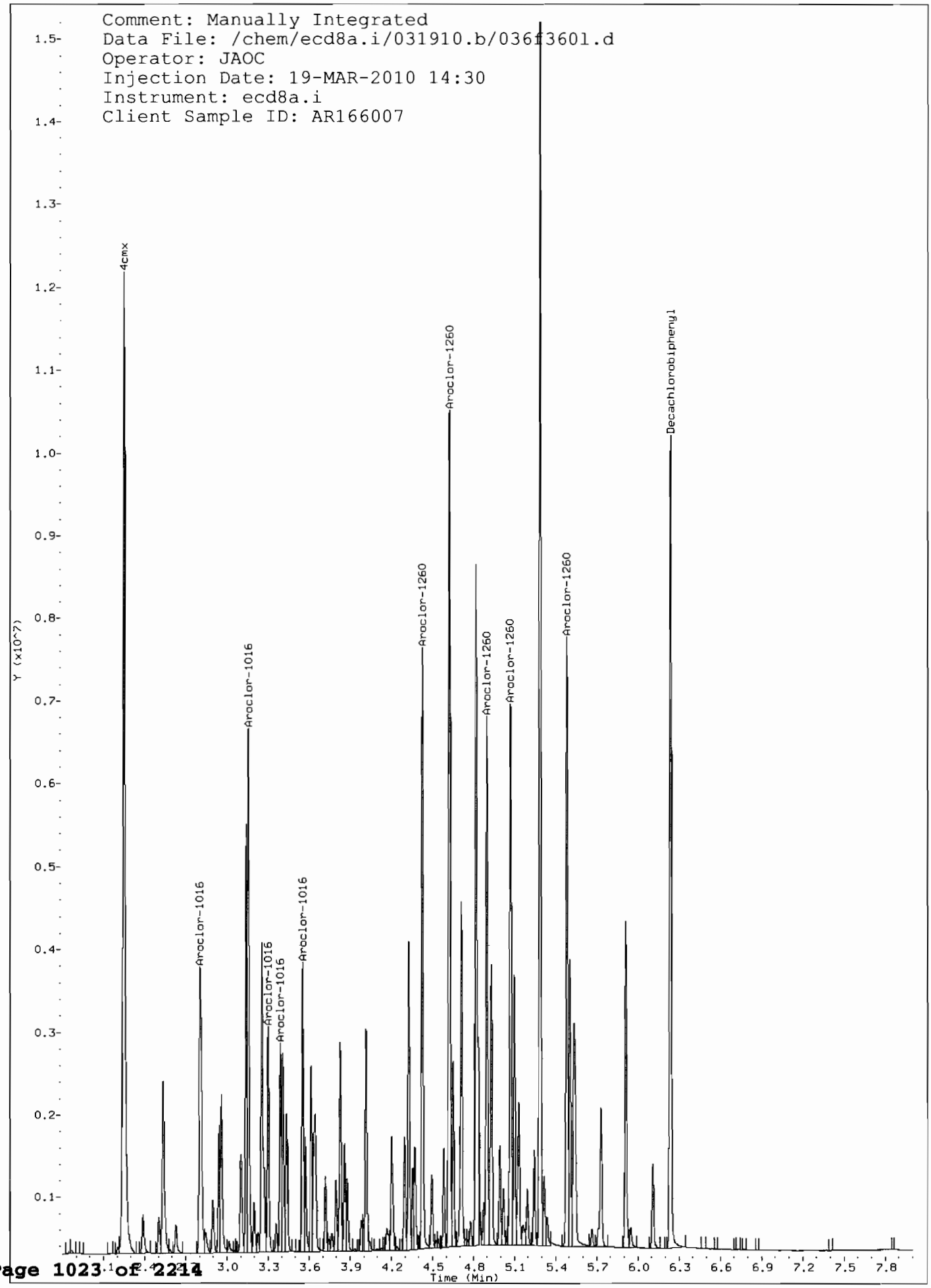
Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

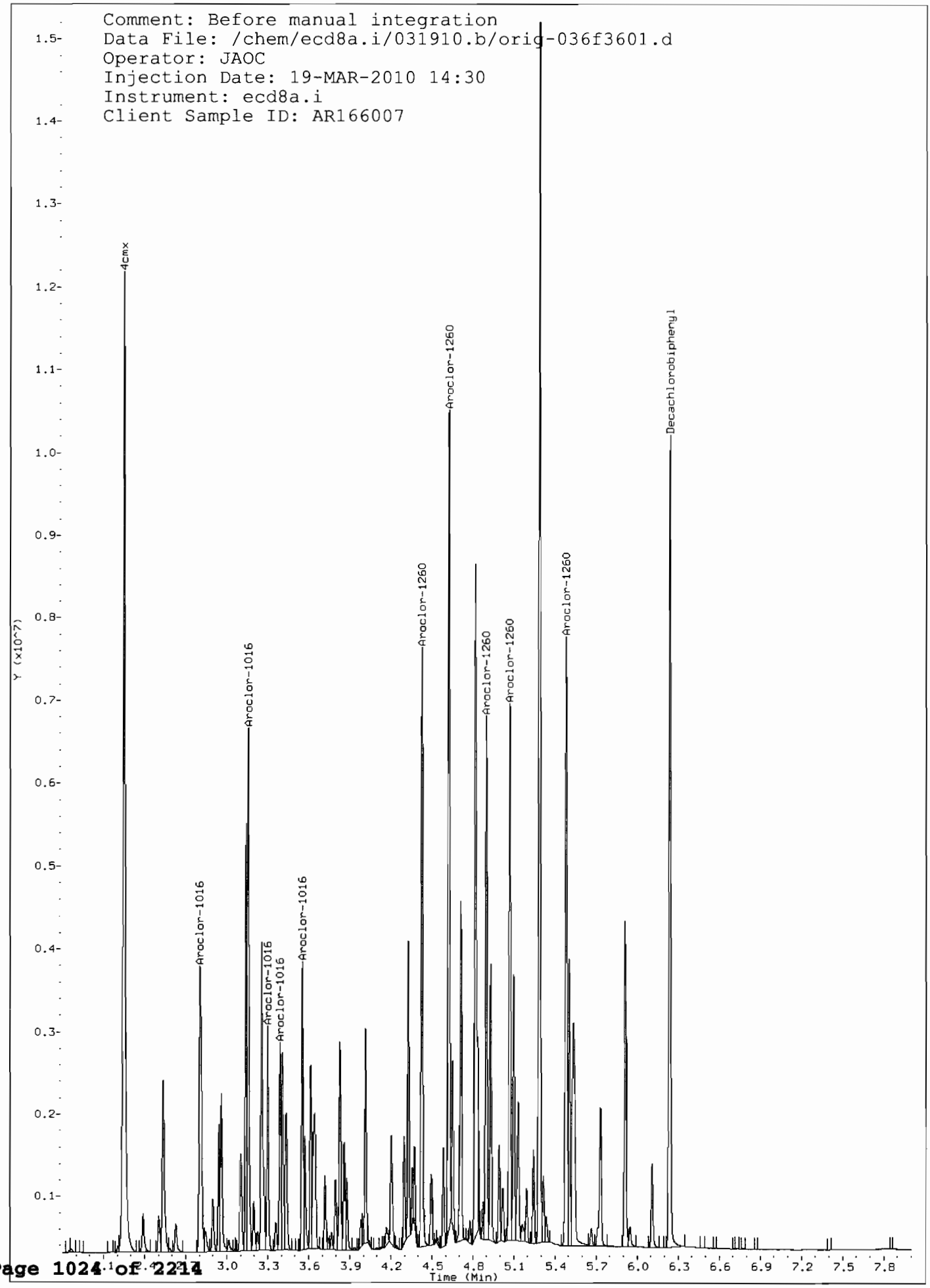
Column phase: CLP1



/chem/ecd8a.i/031910.b/036f3601.d

Page 1


Comment: Manually Integrated
Data File: /chem/ecd8a.i/031910.b/036f3601.d
Operator: JAOC
Injection Date: 19-MAR-2010 14:30
Instrument: ecd8a.i
Client Sample ID: AR166007
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/ecd8a.i/031910.b/orig-036f3601.d
Operator: JAOC
Injection Date: 19-MAR-2010 14:30
Instrument: ecd8a.i
Client Sample ID: AR166007
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/ecd8a.i/031910.b/036b3601.d
Lab Smp Id: WAR100319-60 07 Client Smp ID: AR166007
Inj Date : 19-MAR-2010 14:30
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100319-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 36 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		
2.477	2.477	0.000	9136509	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	6684416	100.000	113	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	4101482	1000.00	1120	80.00- 120.00	100.00(M)
3.647	3.648	-0.001	2598717	1000.00	1020	44.99- 84.99	63.36
3.723	3.724	-0.001	1573071	1000.00	1050	19.11- 59.11	38.35
3.798	3.799	-0.001	1509674	1000.00	1020	17.60- 57.60	36.81
3.995	3.995	0.000	2093298	1000.00	1030	31.73- 71.73	51.04
Average of Peak Amounts =				1.05e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.908	-0.001	4433168	1000.00	1120	80.00- 120.00	100.00(M)
5.056	5.057	-0.001	5413639	1000.00	1140	101.80- 141.80	122.12
5.371	5.374	-0.003	4096662	1000.00	1140	71.56- 111.56	92.41
5.579	5.581	-0.002	4259720	1000.00	1150	75.46- 115.46	96.09
6.011	6.012	-0.001	6923268	1000.00	1180	132.73- 172.73	156.17
Average of Peak Amounts =				1.15e+03			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/031910.b/036b3601.d

Date : 19-MAR-2010 14:30

Client ID: AR166007

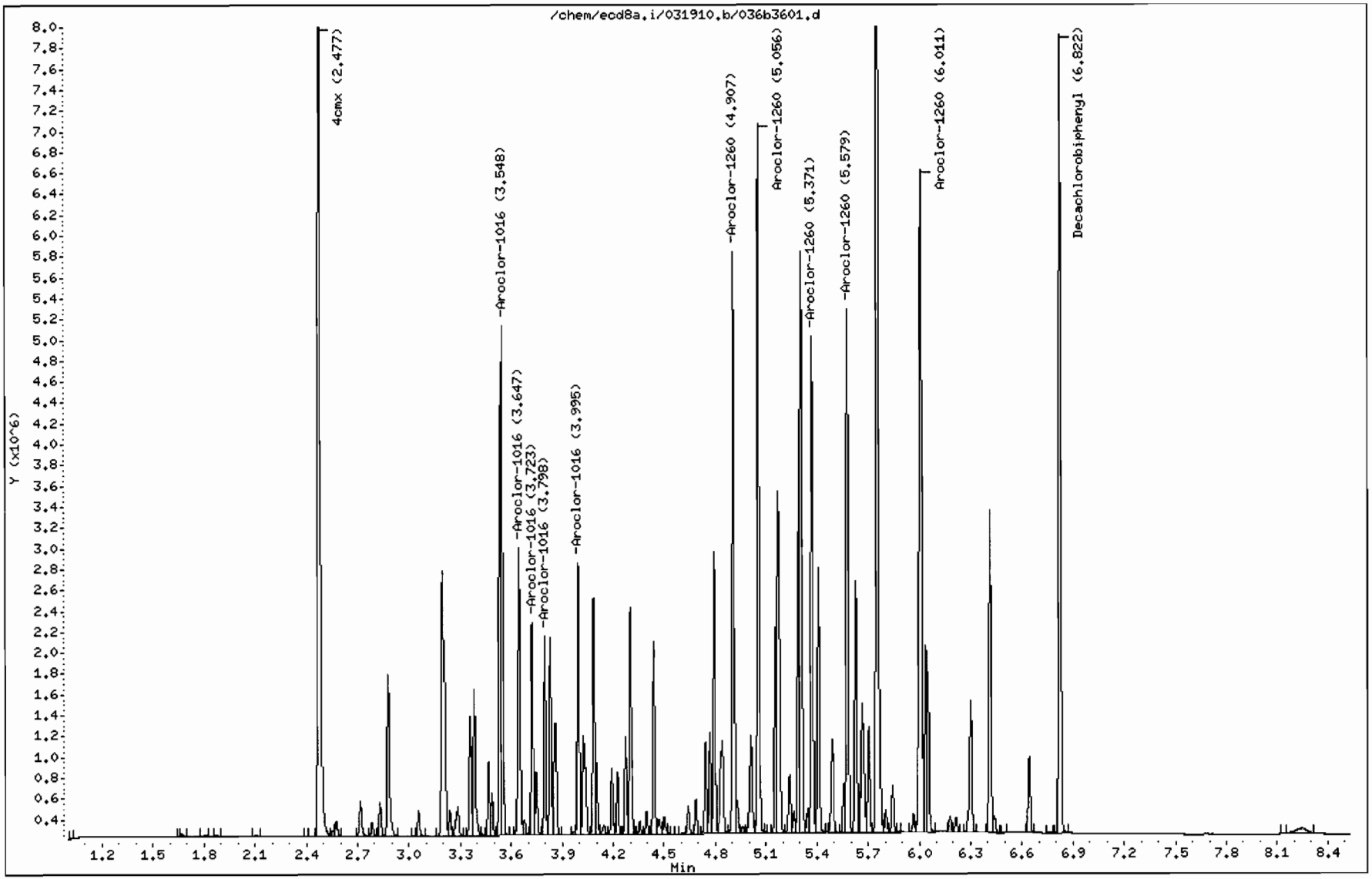
Sample Info: IWAR100319-60 07

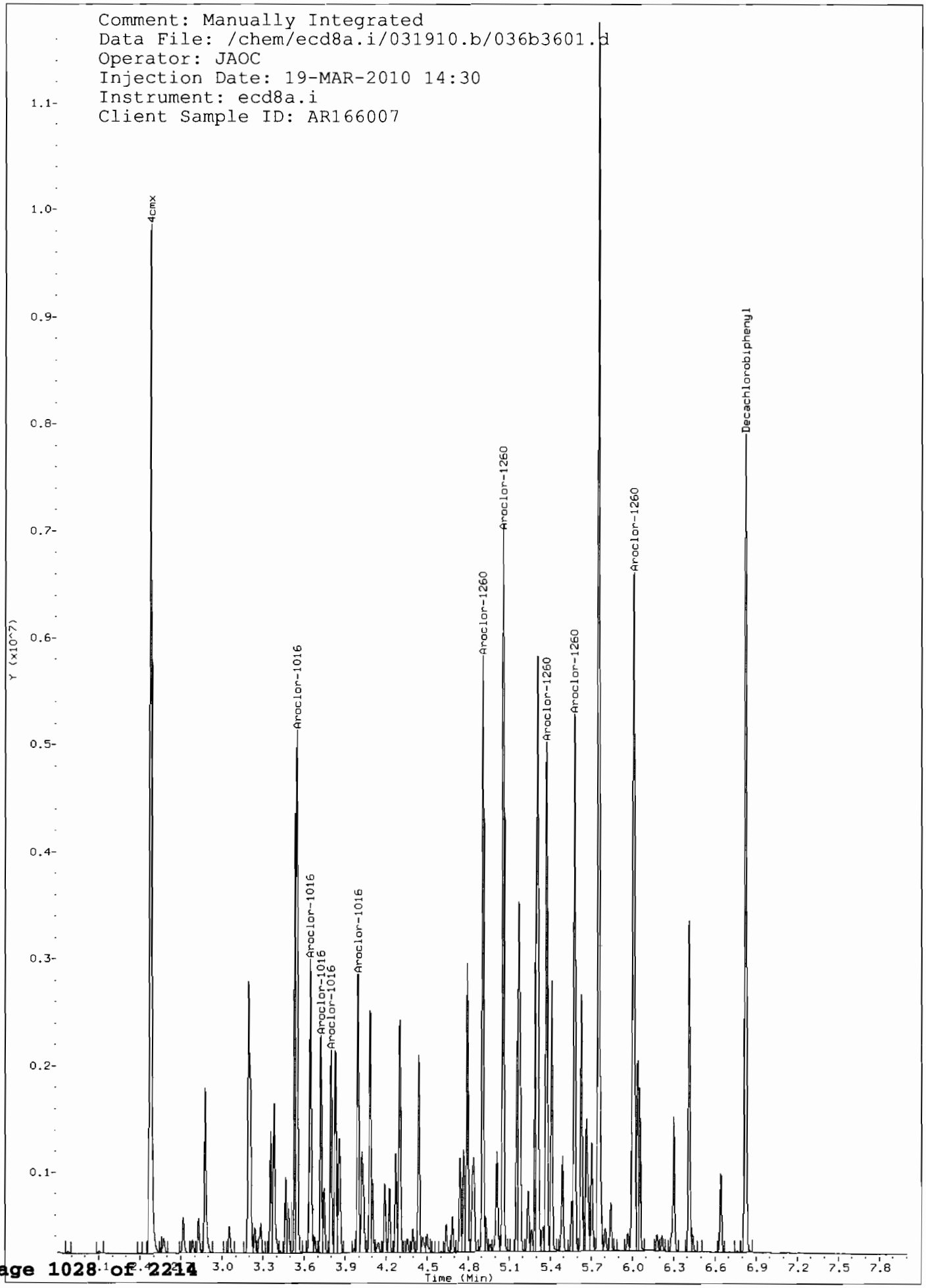
Column phase: CLP2

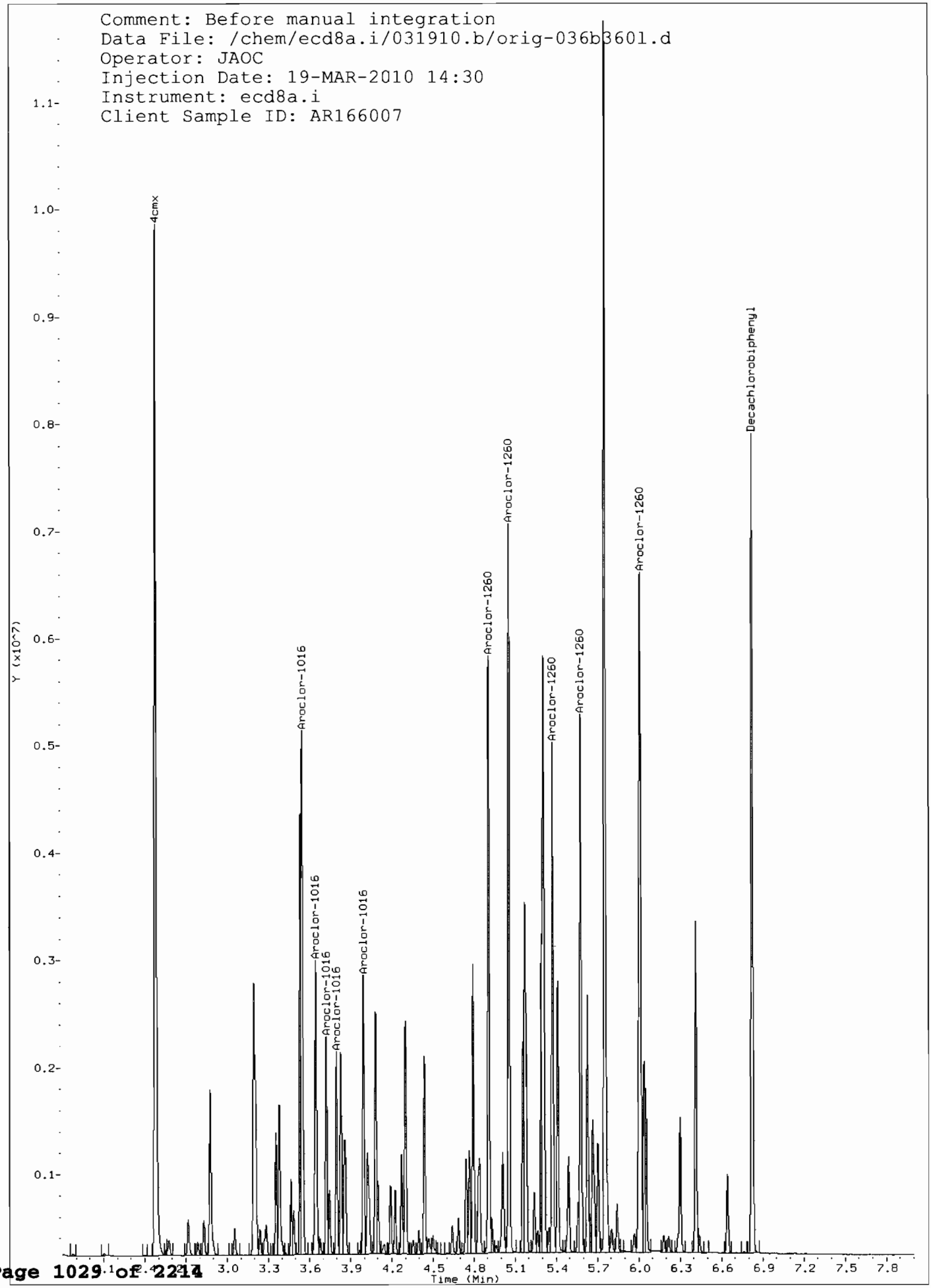
Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd8a.i/031910.b/036b3601.d
Operator: JAOC
Injection Date: 19-MAR-2010 14:30
Instrument: ecd8a.i
Client Sample ID: AR166007
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/ecd8a.i/031910.b/orig-036b3601.d
Operator: JAOC
Injection Date: 19-MAR-2010 14:30
Instrument: ecd8a.i
Client Sample ID: AR166007
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
Decachlorobiphenyl

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.: 10-2198

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.25	6.24
02	AR166001	WAR100317-01	03/18/10	0625	2.25	6.24
03	AR166002	WAR100317-02	03/18/10	0638	2.25	6.24
04	AR166003	WAR100317-03	03/18/10	0650	2.25	6.24
05	AR166004	WAR100317-04	03/18/10	0702	2.25	6.24
06	AR166005	IAR100311-01	03/18/10	0715	2.25	6.24
07	AR166001	WAR100224-60	03/18/10	0727	2.25	6.24
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.25	6.24
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.25	6.24
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.25	6.24
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.25	6.24
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.25	6.24
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.25	6.24
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.25	6.25
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.25	6.24
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.25	6.24
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.25	6.24
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.25	6.25
27	AR166002	WAR100224-60	03/18/10	1139	2.25	6.24
28	PIBLK03	WAR100219-99	03/18/10	1151	2.25	6.24
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.25	6.24
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.25	6.29*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.25	6.26
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.25	6.24

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.: 10-2198

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.48	6.82
02	AR166001	WAR100317-01	03/18/10	0625	2.48	6.83
03	AR166002	WAR100317-02	03/18/10	0638	2.48	6.83
04	AR166003	WAR100317-03	03/18/10	0650	2.48	6.83
05	AR166004	WAR100317-04	03/18/10	0702	2.48	6.83
06	AR166005	IAR100311-01	03/18/10	0715	2.48	6.83
07	AR166001	WAR100224-60	03/18/10	0727	2.48	6.83
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.48	6.83
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.48	6.83
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.48	6.82
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.48	6.82
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.48	6.83
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.48	6.83
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.48	6.83
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.48	6.83
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.48	6.83
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.48	6.83
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.48	6.83
27	AR166002	WAR100224-60	03/18/10	1139	2.48	6.82
28	PIBLK03	WAR100219-99	03/18/10	1151	2.48	6.83
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.48	6.83
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.48	6.86*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.48	6.84
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.48	6.83

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.: 10-2198

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/19/10	0626	2.25	6.24
02	AR166001	WAR100224-60	03/19/10	0639	2.25	6.24
03	AR125401	WAR100201-54	03/19/10	0651		
04	ZZZZZ	ZZZZZ	03/19/10	0703		
05	AR124801	WAR091217-48	03/19/10	0716		
06	AR123201	WAR100104-32	03/19/10	0728		
07	AR124201	WAR091217-42	03/19/10	0741		
08	AR122101	WAR100104-21	03/19/10	0753		
09	AR126201	WAR100104-62	03/19/10	0805		
10	AR126801	WAR100107-68	03/19/10	0818		
11	DDTANALOGSTD	WAR091219-DD	03/19/10	0830		
12	PIBLK02	WAR100219-99	03/19/10	0843	2.25	6.24
13	ZZZZZ	ZZZZZ	03/19/10	0855	2.25	6.24
14	ZZZZZ	ZZZZZ	03/19/10	0907	2.25	6.24
15	AR166002	WAR100224-60	03/19/10	0920	2.25	6.24
16	PIBLK03	WAR100219-99	03/19/10	0932	2.25	6.24
17	AR166003	WAR100224-60	03/19/10	0954	2.25	6.24
18	PIBLK04	WAR100219-99	03/19/10	1007	2.25	6.24
19	ZZZZZ	ZZZZZ	03/19/10	1019	2.25	6.24
20	ZZZZZ	ZZZZZ	03/19/10	1036	2.25	6.24
21	AR166004	WAR100224-60	03/19/10	1052	2.25	6.24
22	PIBLK05	WAR100219-99	03/19/10	1121	2.26	6.25
23	AR166005	WAR100224-60	03/19/10	1133	2.25	6.24
24	AR166006	WAR100319-60	03/19/10	1157	2.25	6.25
25	PIBLK06	WAR100219-99	03/19/10	1210	2.25	6.24
26	PBLK01	1202073937	03/19/10	1223	2.25	6.24
27	PBLK01LCS	1202073938	03/19/10	1235	2.25	6.24
28	ZZZZZ	ZZZZZ	03/19/10	1247	2.25	6.24
29	ZZZZZ	ZZZZZ	03/19/10	1300	2.25	6.24
30	ZZZZZ	ZZZZZ	03/19/10	1312	2.25	6.24
31	ZZZZZ	ZZZZZ	03/19/10	1324	2.25	6.24
32	ZZZZZ	ZZZZZ	03/19/10	1337	2.25	6.24

	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.: 10-2198

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/19/10	1349	2.25	6.24
02	ZZZZZ	ZZZZZ	03/19/10	1402	2.25	6.24
03	RE36-10-8292	248517001	03/19/10	1414	2.25	6.24
04	AR166007	WAR100319-60	03/19/10	1430	2.25	6.24
05	PIBLK08	WAR100219-99	03/19/10	1443	2.25	6.24
06	ZZZZZ	ZZZZZ	03/19/10	1455	2.25	6.24
07	ZZZZZ	ZZZZZ	03/19/10	1508	2.25	6.24
08	ZZZZZ	ZZZZZ	03/19/10	1520	2.25	6.24
09	ZZZZZ	ZZZZZ	03/19/10	1532	2.25	6.24
10	ZZZZZ	ZZZZZ	03/19/10	1545	2.25	6.24
11	ZZZZZ	ZZZZZ	03/19/10	1557	2.25	6.24
12	ZZZZZ	ZZZZZ	03/19/10	1609	2.25	6.24
13	ZZZZZ	ZZZZZ	03/19/10	1622	2.25	6.24
14	ZZZZZ	ZZZZZ	03/19/10	1634	2.25	6.24
15	ZZZZZ	ZZZZZ	03/19/10	1646	2.25	6.24
16	AR166008	WAR100319-60	03/19/10	1703	2.25	6.24
17	PIBLK09	WAR100219-99	03/19/10	1715	2.25	6.24
18	ZZZZZ	ZZZZZ	03/19/10	1728	2.25	6.24
19	ZZZZZ	ZZZZZ	03/19/10	1740	2.25	6.24
20	ZZZZZ	ZZZZZ	03/19/10	1752	2.25	6.24
21	ZZZZZ	ZZZZZ	03/19/10	1805	2.25	6.24
22	AR166009	WAR100319-60	03/19/10	1821	2.25	6.24
23	PIBLK10	WAR100219-99	03/19/10	1834	2.25	6.24
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.

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.: 10-2198

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/19/10	0626	2.48	6.82
02	AR166001	WAR100224-60	03/19/10	0639	2.48	6.82
03	AR125401	WAR100201-54	03/19/10	0651		
04	ZZZZZ	ZZZZZ	03/19/10	0703		
05	AR124801	WAR091217-48	03/19/10	0716		
06	AR123201	WAR100104-32	03/19/10	0728		
07	AR124201	WAR091217-42	03/19/10	0741		
08	AR122101	WAR100104-21	03/19/10	0753		
09	AR126201	WAR100104-62	03/19/10	0805		
10	AR126801	WAR100107-68	03/19/10	0818		
11	DDTANALOGSTD	WAR091219-DD	03/19/10	0830		
12	PIBLK02	WAR100219-99	03/19/10	0843	2.48	6.82
13	ZZZZZ	ZZZZZ	03/19/10	0855	2.48	6.82
14	ZZZZZ	ZZZZZ	03/19/10	0907	2.48	6.82
15	AR166002	WAR100224-60	03/19/10	0920	2.48	6.82
16	PIBLK03	WAR100219-99	03/19/10	0932	2.48	6.82
17	AR166003	WAR100224-60	03/19/10	0954	2.48	6.83
18	PIBLK04	WAR100219-99	03/19/10	1007	2.48	6.83
19	ZZZZZ	ZZZZZ	03/19/10	1019	2.48	6.82
20	ZZZZZ	ZZZZZ	03/19/10	1036	2.48	6.82
21	AR166004	WAR100224-60	03/19/10	1052	2.48	6.82
22	PIBLK05	WAR100219-99	03/19/10	1121	2.48	6.83
23	AR166005	WAR100224-60	03/19/10	1133	2.48	6.82
24	AR166006	WAR100319-60	03/19/10	1157	2.48	6.83
25	PIBLK06	WAR100219-99	03/19/10	1210	2.48	6.82
26	PBLK01	1202073937	03/19/10	1223	2.48	6.82
27	PBLK01LCS	1202073938	03/19/10	1235	2.48	6.82
28	ZZZZZ	ZZZZZ	03/19/10	1247	2.48	6.82
29	ZZZZZ	ZZZZZ	03/19/10	1300	2.48	6.82
30	ZZZZZ	ZZZZZ	03/19/10	1312	2.48	6.82
31	ZZZZZ	ZZZZZ	03/19/10	1324	2.48	6.82
32	ZZZZZ	ZZZZZ	03/19/10	1337	2.48	6.82

	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.: 10-2198

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/19/10	1349	2.48	6.82
02	ZZZZZ	ZZZZZ	03/19/10	1402	2.48	6.82
03	RE36-10-8292	248517001	03/19/10	1414	2.48	6.82
04	AR166007	WAR100319-60	03/19/10	1430	2.48	6.82
05	PIBLK08	WAR100219-99	03/19/10	1443	2.48	6.82
06	ZZZZZ	ZZZZZ	03/19/10	1455	2.48	6.82
07	ZZZZZ	ZZZZZ	03/19/10	1508	2.48	6.82
08	ZZZZZ	ZZZZZ	03/19/10	1520	2.48	6.82
09	ZZZZZ	ZZZZZ	03/19/10	1532	2.48	6.82
10	ZZZZZ	ZZZZZ	03/19/10	1545	2.48	6.82
11	ZZZZZ	ZZZZZ	03/19/10	1557	2.48	6.82
12	ZZZZZ	ZZZZZ	03/19/10	1609	2.48	6.82
13	ZZZZZ	ZZZZZ	03/19/10	1622	2.48	6.82
14	ZZZZZ	ZZZZZ	03/19/10	1634	2.48	6.82
15	ZZZZZ	ZZZZZ	03/19/10	1646	2.48	6.82
16	AR166008	WAR100319-60	03/19/10	1703	2.48	6.82
17	PIBLK09	WAR100219-99	03/19/10	1715	2.48	6.82
18	ZZZZZ	ZZZZZ	03/19/10	1728	2.48	6.82
19	ZZZZZ	ZZZZZ	03/19/10	1740	2.48	6.82
20	ZZZZZ	ZZZZZ	03/19/10	1752	2.48	6.82
21	ZZZZZ	ZZZZZ	03/19/10	1805	2.48	6.82
22	AR166009	WAR100319-60	03/19/10	1821	2.48	6.82
23	PIBLK10	WAR100219-99	03/19/10	1834	2.48	6.82
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.

Identification Summary

SDG Number: 10–2198 **Client ID:** LCS for batch 966418

Lab Sample ID: 1202073938

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	19–MAR–10 12:35	**Analyzed:**	19–MAR–10 12:35

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							3.62
Column 1	1	2.81	2.78 – 2.84	23.3		ug/kg	
	2	3.16	3.13 – 3.19	25.9		ug/kg	
	3	3.3	3.27 – 3.33	24.8		ug/kg	
	4	3.39	3.36 – 3.42	24.3		ug/kg	
	5	3.55	3.52 – 3.58	24.6		ug/kg	
					24.6		
Column 2	1	3.55	3.52 – 3.58	26		ug/kg	
	2	3.65	3.62 – 3.68	25.1		ug/kg	
	3	3.72	3.69 – 3.75	25.4		ug/kg	
	4	3.8	3.77 – 3.83	25.3		ug/kg	
	5	4	3.96 – 4.02	25.5		ug/kg	
					25.5		
Aroclor–1260							4.73
Column 1	1	4.43	4.4 – 4.46	28.3		ug/kg	
	2	4.62	4.59 – 4.65	29.5		ug/kg	
	3	4.9	4.87 – 4.93	29.4		ug/kg	
	4	5.07	5.04 – 5.1	29.4		ug/kg	
	5	5.48	5.45 – 5.51	31.6		ug/kg	
					29.7		
Column 2	1	4.91	4.88 – 4.94	29.6		ug/kg	
	2	5.06	5.03 – 5.09	30.6		ug/kg	
	3	5.37	5.34 – 5.4	31		ug/kg	
	4	5.58	5.55 – 5.61	31.1		ug/kg	
	5	6.01	5.98 – 6.04	33.2		ug/kg	
					31.1		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073937**				
Client Sample:	**QC for batch 966418**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966418**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**966420**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 12:23**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/18/2010 10:57**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**026f2601-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	026b2601-1.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

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/026f2601-2.d
Lab Smp Id: 1202073937 Client Smp ID: PBLK01
Inj Date : 19-MAR-2010 12:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073937|1|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2198.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

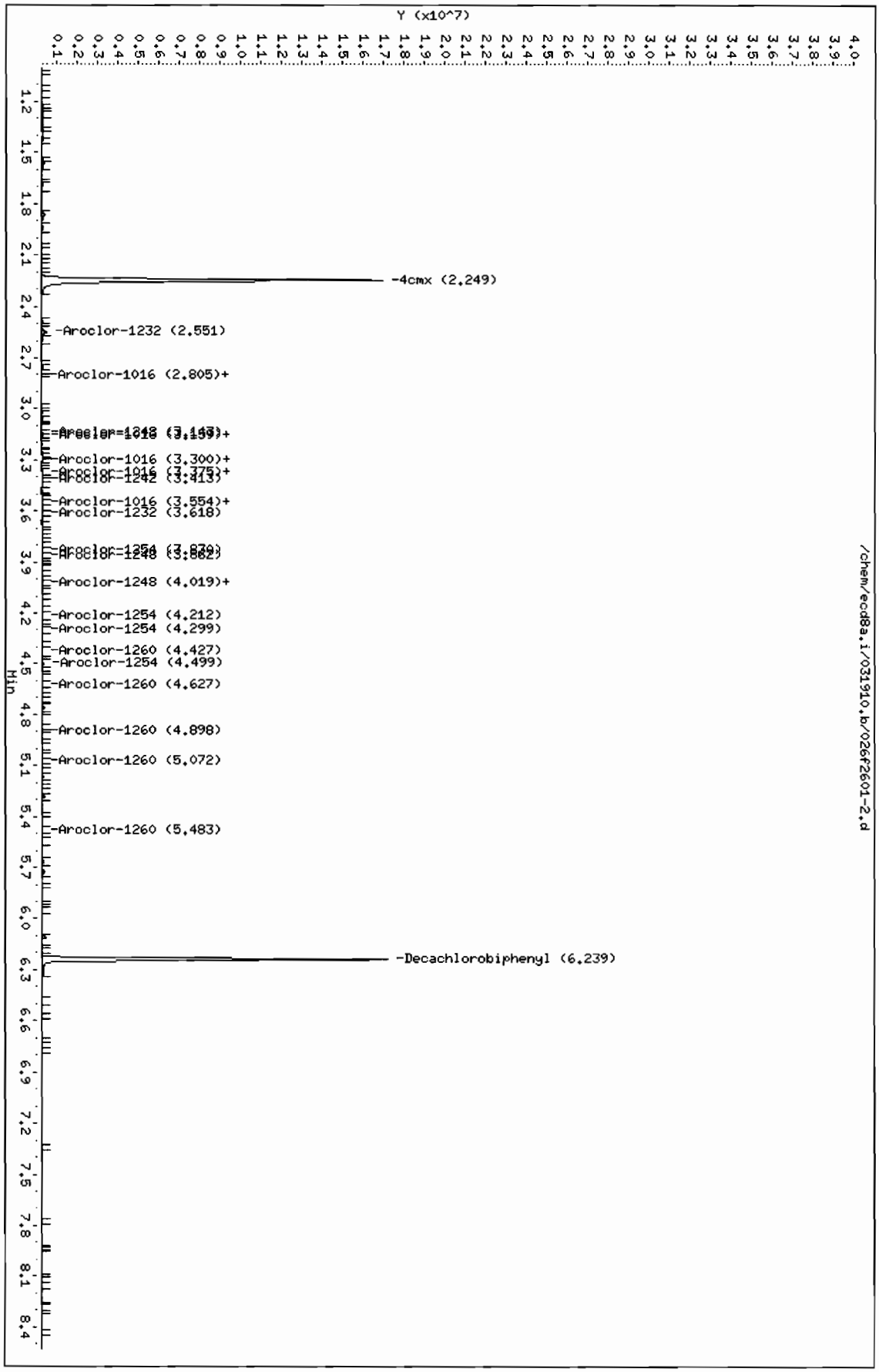
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

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		
2.249	2.248	0.001	17709306	141.718	4.7	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
6.239	6.239	0.000	15414750	187.183	6.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/031910.b/026f2601-2.d
Date : 19-MAR-2010 12:23
Client ID: PBLK01
Sample Info: !1202073937!1!
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25



Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/026b2601-2.d
Lab Smp Id: 1202073937 Client Smp ID: PBLK01
Inj Date : 19-MAR-2010 12:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073937|1|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2198.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		
2.478	2.477	0.001	12608587	150.853	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	11617484	196.067	6.5	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/031910.b/026b2601-2.d

Date : 19-MAR-2010 12:23

Client ID: PBLK01

Sample Info: |1202073937|1|

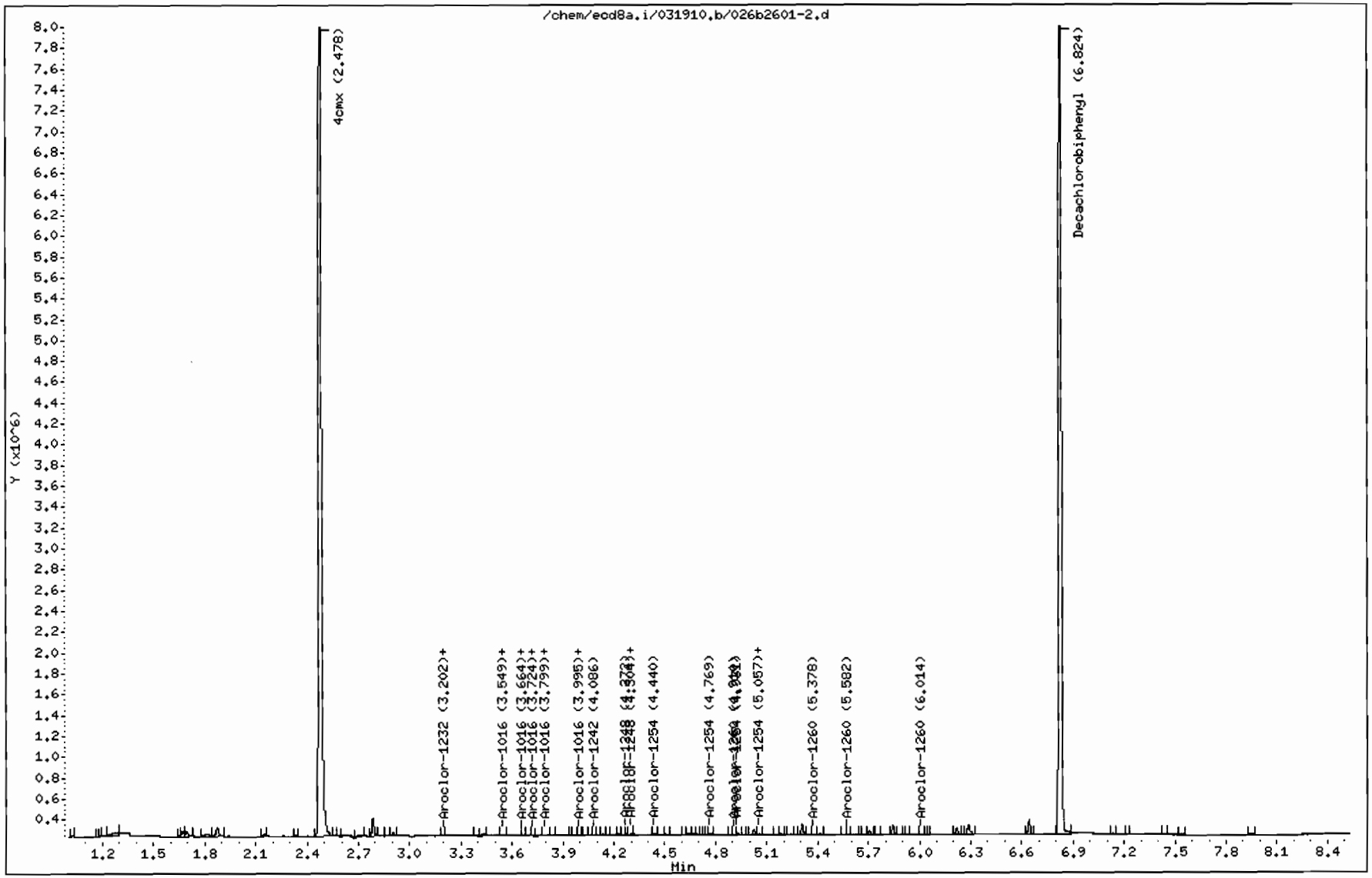
Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2198**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073938**				
Client Sample:	**QC for batch 966418**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966418**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**966420**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 12:35**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/18/2010 10:57**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**027f2701–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		25.5	ug/kg	1.11	3.33	2
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		31.1	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/027f2701-2.d
Lab Smp Id: 1202073938 Client Smp ID: PBLK01LCS
Inj Date : 19-MAR-2010 12:35
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073938|1|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 27 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2198.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		
2.249	2.248	0.001	18913488	151.355	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.239	0.000	16027251	194.621	6.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	3337373	699.326	23.3	80.00- 120.00	100.00(M)
3.157	3.157	0.000	4193623	776.971	25.9	107.11- 147.11	125.66
3.301	3.300	0.001	1746826	742.811	24.8	32.79- 72.79	52.34
3.393	3.392	0.001	1598213	729.256	24.3	25.87- 65.87	47.89

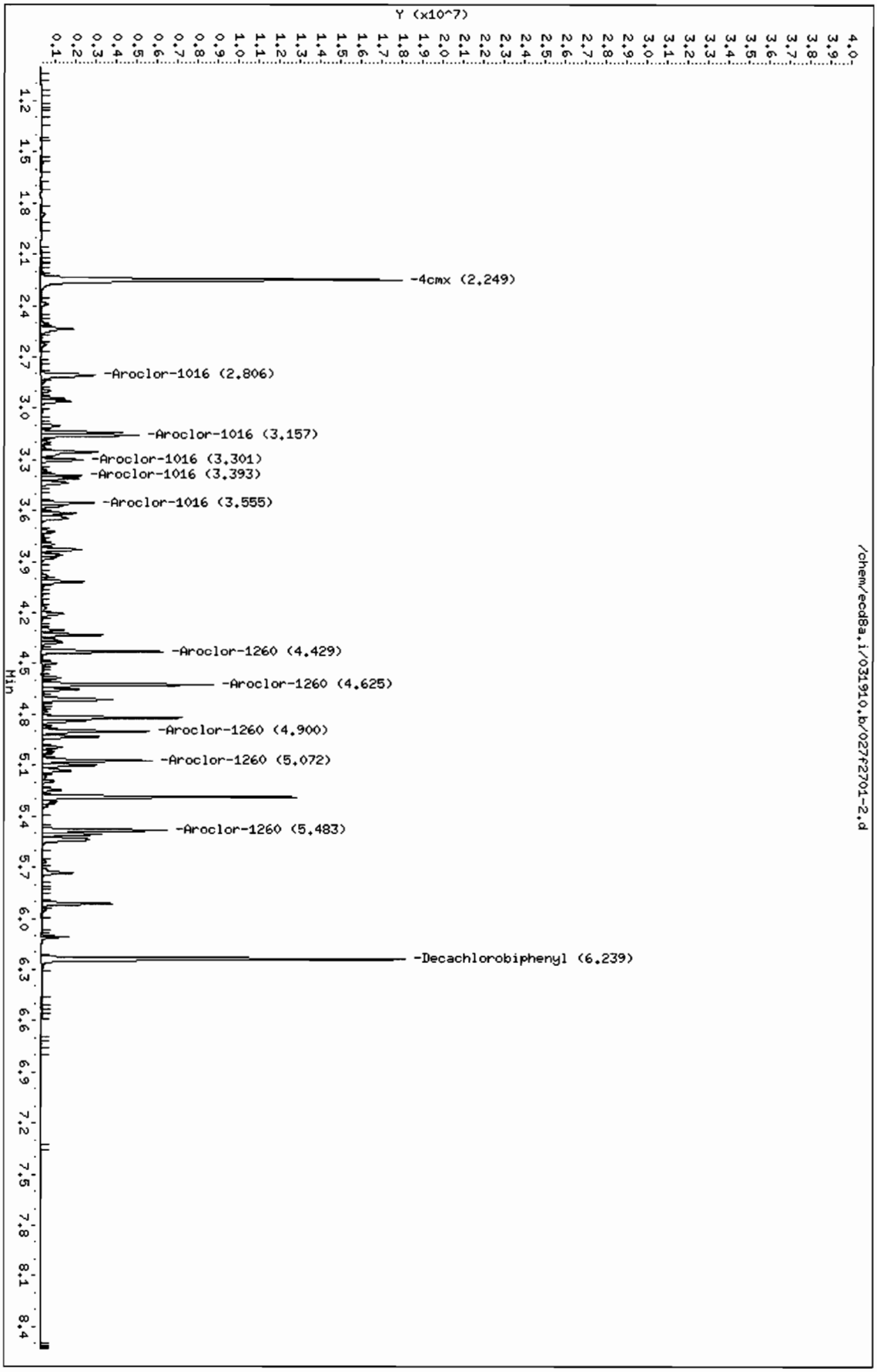
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.555	3.555	0.000	2269537	737.115	24.6	47.87- 87.87	68.00
Average of Peak Concentrations =					24.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.429	0.000	5008165	850.274	28.3	80.00- 120.00	100.00(M)
4.625	4.625	0.000	7527530	886.083	29.5	126.91- 166.91	150.31
4.900	4.900	0.000	4466852	881.685	29.4	64.82- 104.82	89.19
5.072	5.072	0.000	4696880	881.378	29.4	70.18- 110.18	93.78
5.483	5.483	0.000	5354130	949.149	31.6	76.66- 116.66	106.91
Average of Peak Concentrations =					29.6		

QC Flag Legend

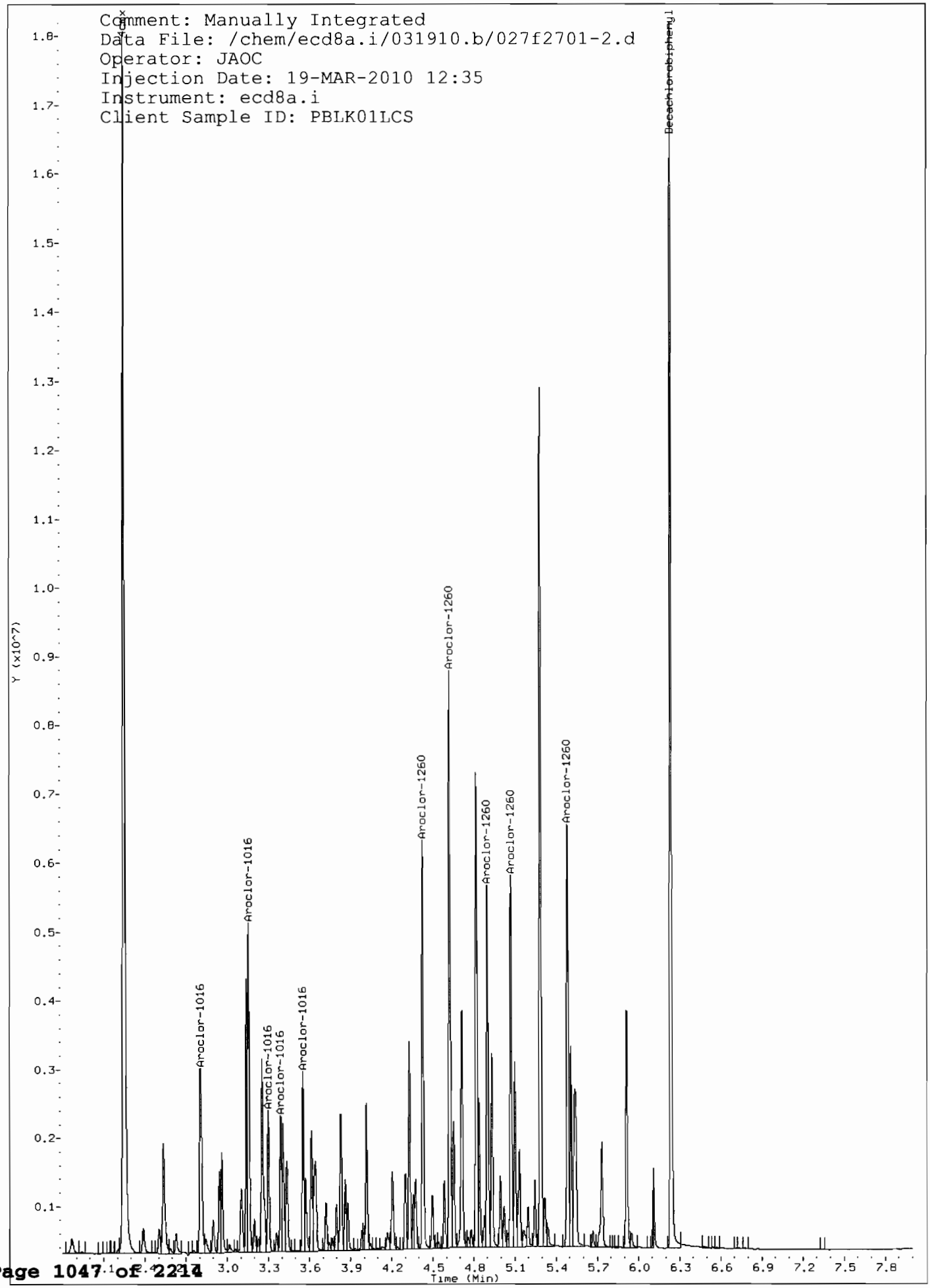
M - Compound response manually integrated.

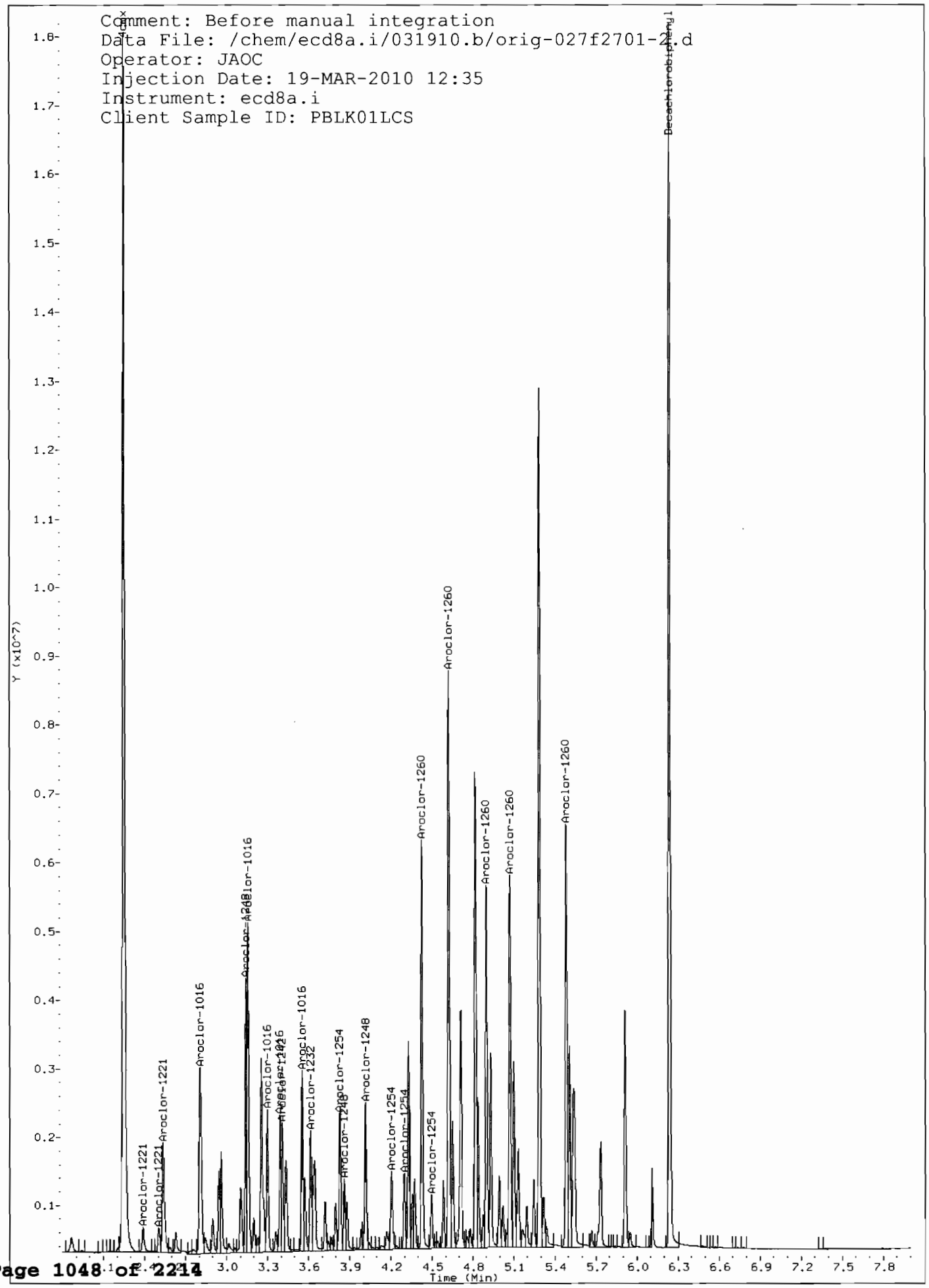
Data File: /chem/ecd8a.i/031910.b/027f2701-2.d
Date : 19-MAR-2010 12:35
Client ID: PBLK01LCS
Sample Info: I120207393811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd8a.i/031910.b/027f2701-2.d
Operator: JAOC
Injection Date: 19-MAR-2010 12:35
Instrument: ecd8a.i
Client Sample ID: PBLK01LCS
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/ecd8a.i/031910.b/orig-027f2701-2.d
Operator: JAOC
Injection Date: 19-MAR-2010 12:35
Instrument: ecd8a.i
Client Sample ID: PBLK01LCS
Y (x10^7)
Time (Min)
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/027b2701-2.d
Lab Smp Id: 1202073938 Client Smp ID: PBLK01LCS
Inj Date : 19-MAR-2010 12:35
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073938|1|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 27 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2198.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		
2.477	2.477	0.000	13425786	160.630	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	12244077	206.642	6.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.549	3.548	0.001	2870350	780.459	26.0	80.00- 120.00	100.00
3.648	3.648	0.000	1922394	753.529	25.1	44.99- 84.99	66.97
3.724	3.724	0.000	1135883	761.299	25.4	19.11- 59.11	39.57
3.799	3.799	0.000	1122576	759.676	25.3	17.60- 57.60	39.11

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.996	3.995	0.001	1551449	766.222	25.5	31.73- 71.73	54.05
Average of Peak Concentrations =					25.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.908	0.000	3496632	887.807	29.6	80.00- 120.00	100.00
5.057	5.057	0.000	4343829	918.265	30.6	101.80- 141.80	124.23
5.373	5.374	-0.001	3336144	930.156	31.0	71.56- 111.56	95.41
5.581	5.581	0.000	3463152	932.901	31.1	75.46- 115.46	99.04
6.012	6.012	0.000	5812568	995.076	33.2	132.73- 172.73	166.23
Average of Peak Concentrations =					31.1		

Data File: /chem/ecd8a.i/031910.b/027b2701-2.d

Date : 19-MAR-2010 12:35

Client ID: PBLK01LCS

Sample Info: |1202073938|1|

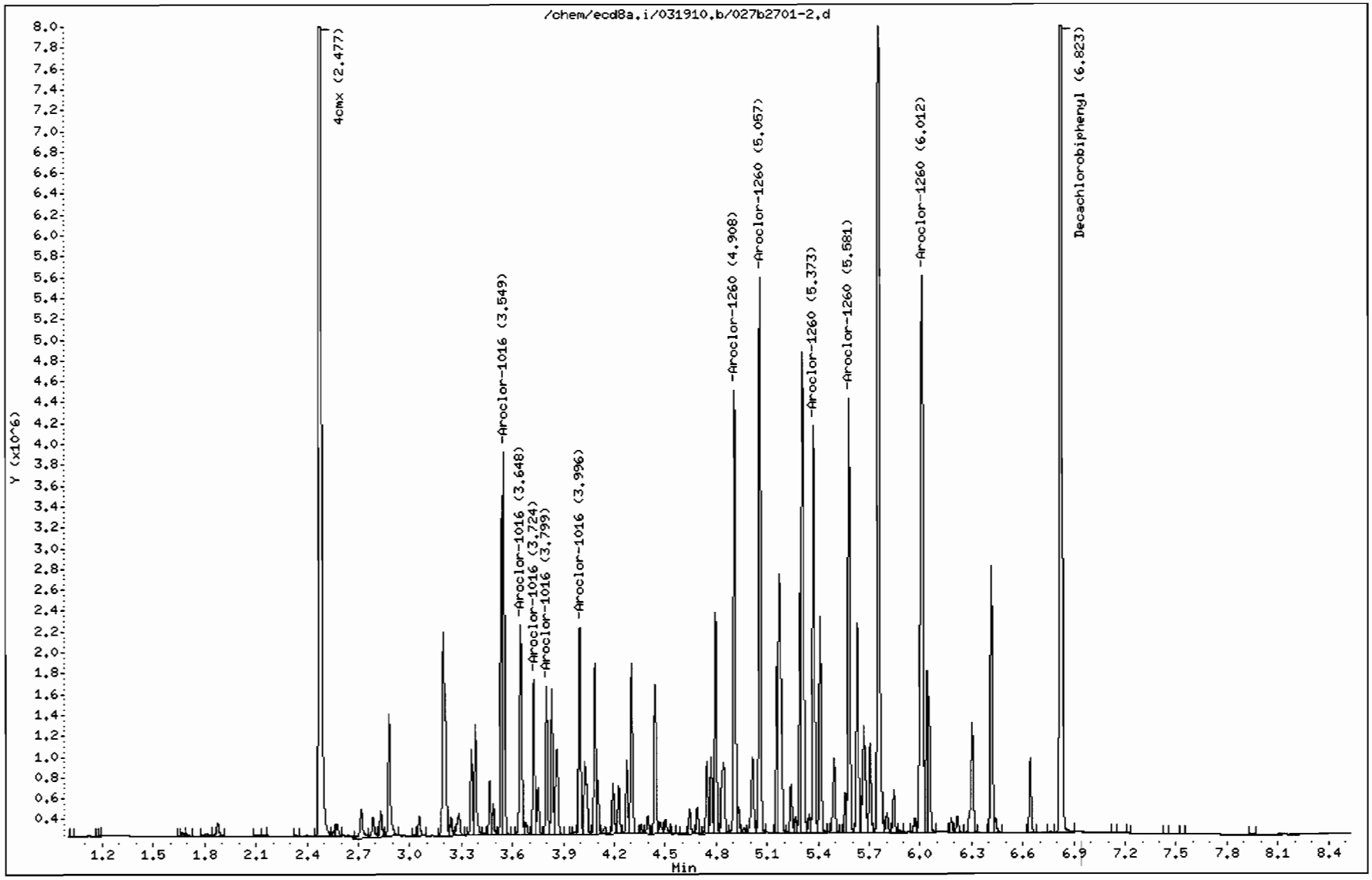
Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/19/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/031810.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	18-MAR-2010 06:13		031810	1.0		CLEAN
002f0201.d	WAR100317-01 60	JAOC	18-MAR-2010 06:25		031810	1.0		1660 LEVEL 1
003f0301.d	WAR100317-02 60	JAOC	18-MAR-2010 06:38		031810	1.0		1660 LEVEL 2
004f0401.d	WAR100317-03 60	JAOC	18-MAR-2010 06:50		031810	1.0		1660 LEVEL 3
005f0501.d	WAR100317-04 60	JAOC	18-MAR-2010 07:02		031810	1.0		1660 LEVEL 4
006f0601.d	IAR100311-01 60	JAOC	18-MAR-2010 07:15		031810	1.0		1660 LEVEL 5
007f0701.d	WAR100224-60 01	JAOC	18-MAR-2010 07:27		031810	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100201-54	JAOC	18-MAR-2010 07:39		031810	1.0		PASSES BOTH COLUMNS
009f0901.d	WAR091217-42	JAOC	18-MAR-2010 07:52		031810	1.0		PASSES BOTH COLUMNS
010f1001.d	WAR091217-48	JAOC	18-MAR-2010 08:04		031810	1.0		PASSES BOTH COLUMNS
011f1101.d	WAR100104-32	JAOC	18-MAR-2010 08:17		031810	1.0		PATTERN ONLY
012f1201.d	WAR100104-21	JAOC	18-MAR-2010 08:29		031810	1.0		PATTERN ONLY
013f1301.d	WAR100104-62	JAOC	18-MAR-2010 08:41		031810	1.0		PATTERN ONLY
014f1401.d	WAR100107-68	JAOC	18-MAR-2010 08:54		031810	1.0		PATTERN ONLY
015f1501.d	WAR091219-DDT	JAOC	18-MAR-2010 09:06		031810	1.0		DDT

Instrument Batch: /chem/ecd8a.i/031810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100219-99 02	JAOC	18-MAR-2010 09:19		031810	1.0		CLEAN
017f1701.d	1202073907	JAOC	18-MAR-2010 09:31	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202073908	JAOC	18-MAR-2010 09:43	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202073909	JAOC	18-MAR-2010 09:55	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	248554001	JAOC	18-MAR-2010 10:08	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
021f2101.d	248554002	JAOC	18-MAR-2010 10:20	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
022f2201.d	248554003	JAOC	18-MAR-2010 10:33	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
023f2301.d	248554004	JAOC	18-MAR-2010 10:45	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
024f2401.d	248554005	JAOC	18-MAR-2010 10:57	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
025f2501.d	248554006	JAOC	18-MAR-2010 11:10	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
026f2601.d	248554007	JAOC	18-MAR-2010 11:22	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
027f2701.d	WAR100224-60 02	JAOC	18-MAR-2010 11:39		031810		1.0		PASSES BOTH COLUMNS
028f2801.d	WAR100219-99 03	JAOC	18-MAR-2010 11:51		031810		1.0		CLEAN
029f2901.d	248554008	JAOC	18-MAR-2010 12:03	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
030f3001.d	248554009	JAOC	18-MAR-2010 12:16	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
031f3101.d	248554010	JAOC	18-MAR-2010 12:28	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
032f3201.d	248554011	JAOC	18-MAR-2010 12:40	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
033f3301.d	248554012	JAOC	18-MAR-2010 12:53	966402	10033		1.0	WSRS	DUSE, 5X RERUN END SEQUENCE
034f3401.d	248554013	JAOC	18-MAR-2010 13:05	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN END SEQUENCE
035f3501.d	248554014	JAOC	18-MAR-2010 13:17	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248554015	JAOC	18-MAR-2010 13:30	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
037f3701.d	248554016	JAOC	18-MAR-2010 13:42	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
038f3801.d	248554017	JAOC	18-MAR-2010 13:54	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
039f3901.d	WAR100224-60 03	JAOC	18-MAR-2010 14:11		031810		1.0		PASSES BOTH COLUMNS
040f4001.d	WAR100219-99 04	JAOC	18-MAR-2010 14:23		031810		1.0		CLEAN
041f4101.d	248554018	JAOC	18-MAR-2010 14:36	966402	10033		1.0	WSRS	DUSE, 5X RERUN 031910

042f4201.d	248554019	JAOC	18-MAR-2010 14:48	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN 031910
043f4301.d	248554020	JAOC	18-MAR-2010 15:01	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
044f4401.d	248554012	JAOC	18-MAR-2010 15:13	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
045f4501.d	248554013	JAOC	18-MAR-2010 15:25	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 04	JAOC	18-MAR-2010 15:38		031810		1.0		PASSES BOTH COLUMNS
047f4701.d	WAR100219-99 05	JAOC	18-MAR-2010 15:50		031810		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/22/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/031910.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	19-MAR-2010 06:26		031910	1.0		CLEAN
002f0201.d	WAR100224-60 01	JAOC	19-MAR-2010 06:39		031910	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100201-54	JAOC	19-MAR-2010 06:51		031910	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	19-MAR-2010 07:03		031910	1.0		DUSE
005f0501.d	WAR091217-48	JAOC	19-MAR-2010 07:16		031910	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	19-MAR-2010 07:28		031910	1.0		PATTERN ONLY
007f0701.d	WAR091217-42	JAOC	19-MAR-2010 07:41		031910	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100104-21	JAOC	19-MAR-2010 07:53		031910	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	JAOC	19-MAR-2010 08:05		031910	1.0		PATTERN ONLY
010f1001.d	WAR100107-68	JAOC	19-MAR-2010 08:18		031910	1.0		PATTERN ONLY
011f1101.d	WAR091219-DDT	JAOC	19-MAR-2010 08:30		031910	1.0		DDT
012f1201.d	WAR100219-99 02	JAOC	19-MAR-2010 08:43		031910	1.0		CLEAN
013f1301.d	248554018	JAOC	19-MAR-2010 08:55	966402	10033	5.0	WSRS	DUSE, CHECK OVER 20%
014f1401.d	248554019	JAOC	19-MAR-2010 09:07	966402	10033	1.0	WSRS	DUSE, CHECK OVER 20%
015f1501.d	WAR100224-60 02	JAOC	19-MAR-2010 09:20		031910	1.0		CHECK FAILS HIGH

Instrument Batch: /chem/ecd8a.i/031910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100219-99 03	JAOC	19-MAR-2010 09:32		031910	1.0		CLEAN
017f1701.d	WAR100224-60 03	JAOC	19-MAR-2010 09:54		031910	1.0		PASSES ALL PEAKS 20%

018f1801.d	WAR100219-99 04	JAOC	19-MAR-2010 10:07		031910		1.0		CLEAN
019f1901.d	248554018	JAOC	19-MAR-2010 10:19	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
020f2001.d	248554019	JAOC	19-MAR-2010 10:36	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR100224-60 04	JAOC	19-MAR-2010 10:52		031910		1.0		PASSES ALL PEAKS 20%
022f2201.d	WAR100219-99 05	JAOC	19-MAR-2010 11:21		031910		1.0		CLEAN
023f2301.d	WAR100224-60	JAOC	19-MAR-2010 11:33		031910		1.0		DUSE
024f2401.d	WAR100319-60	JAOC	19-MAR-2010 11:57		031910		1.0		PASSES AVG 15%
025f2501.d	WAR100219-99 06	JAOC	19-MAR-2010 12:10		031910		1.0		CLEAN
026f2601.d	1202073937	JAOC	19-MAR-2010 12:23	966420	10-2168		1.0	QC A	UPLOAD BOTH, USE HIGHER
027f2701.d	1202073938	JAOC	19-MAR-2010 12:35	966420	10-2168		1.0	QC A	UPLOAD BOTH, USE HIGHER
028f2801.d	248394001	JAOC	19-MAR-2010 12:47	966420	10-2168		1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	248394002	JAOC	19-MAR-2010 13:00	966420	10-2168		1.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	248394003	JAOC	19-MAR-2010 13:12	966420	10-2168		1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	248394004	JAOC	19-MAR-2010 13:24	966420	10-2168		1.0	LANL	UPLOAD BOTH, USE HIGHER
032f3201.d	248394006	JAOC	19-MAR-2010 13:37	966420	10-2168		1.0	LANL	DUSE: SENT FOR RE DUE TO LOW 4CMX: UPLOAD BOTH, USE HIGHER
033f3301.d	248514002	JAOC	19-MAR-2010 13:49	966420	10-2196		1.0	LANL	DUSE: SENT FOR RE DUE TO LOW $s: UPLOAD BOTH, USE HIGHER
034f3401.d	248514003	JAOC	19-MAR-2010 14:02	966420	10-2196		1.0	LANL	UPLOAD BOTH, USE HIGHER
035f3501.d	248517001	JAOC	19-MAR-2010 14:14	966420	10-2198		1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/031910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100319-60 07	JAOC	19-MAR-2010 14:30		031910		1.0		PASSES AVG 15%
037f3701.d	WAR100219-99 08	JAOC	19-MAR-2010 14:43		031910		1.0		CLEAN
038f3801.d	248519001	JAOC	19-MAR-2010 14:55	966420	10-2199		1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	248519002	JAOC	19-MAR-2010 15:08	966420	10-2199		1.0	LANL	DUSE: SENT FOR RE DUE TO LOW 4CMX: UPLOAD BOTH, USE HIGHER
040f4001.d	248519003	JAOC	19-MAR-2010 15:20	966420	10-2199		1.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	248519004	JAOC	19-MAR-2010 15:32	966420	10-2199		1.0	LANL	DUSE: SENT FOR RE DUE TO LOW 4CMX: UPLOAD BOTH, USE HIGHER

042f4201.d	248519005	JAOC	19-MAR-2010 15:45	966420	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	248519006	JAOC	19-MAR-2010 15:57	966420	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER
044f4401.d	248519007	JAOC	19-MAR-2010 16:09	966420	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER
045f4501.d	248519008	JAOC	19-MAR-2010 16:22	966420	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER
046f4601.d	248519009	JAOC	19-MAR-2010 16:34	966420	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER
047f4701.d	248519010	JAOC	19-MAR-2010 16:46	966420	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER
048f4801.d	WAR100319-60 08	JAOC	19-MAR-2010 17:03		031910	1.0		PASSES AVG 15%
049f4901.d	WAR100219-99 09	JAOC	19-MAR-2010 17:15		031910	1.0		CLEAN
050f5001.d	248519011	JAOC	19-MAR-2010 17:28	966420	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER
051f5101.d	248526001	JAOC	19-MAR-2010 17:40	966420	10-2202	10.0	LANL	UPLOAD BOTH, USE HIGHER
052f5201.d	1202073939	JAOC	19-MAR-2010 17:52	966420	10-2202	10.0	QC A	UPLOAD BOTH, USE HIGHER
053f5301.d	1202073940	JAOC	19-MAR-2010 18:05	966420	10-2202	10.0	QC A	UPLOAD BOTH, USE HIGHER
054f5401.d	WAR100319-60 09	JAOC	19-MAR-2010 18:21		031910	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR100219-99 10	JAOC	19-MAR-2010 18:34		031910	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/052b5201.d
Lab Smp Id: 1202073939 Client Smp ID: RE36-10-8466MS
Inj Date : 19-MAR-2010 17:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073939|10|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 52 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2202.sub
Target Version: 3.50 Sample Matrix: Soil

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

Name	Value	Description
DF	10.00000	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	12.38630	% 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		
2.477	2.477	0.000	554084	6.62922	2.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	428531	7.23229	2.8	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	143472	39.0106	14.8	80.00- 120.00	100.00(aM)
3.647	3.648	-0.001	105634	41.4058	15.8	44.99- 84.99	73.63
3.724	3.724	0.000	56132	37.6212	14.3	19.11- 59.11	39.12
3.799	3 799	0.000	64193	43.4411	16.5	17.60- 57.60	44.74
3.996	3.995	0.001	84078	41.5240	15.8	31.73- 71.73	58.60

Average of Peak Concentrations = 15.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.908	0.000	179585	45.5972	17.3	80.00- 120.00	100.00(aM)
5.057	5.057	0.000	197222	41.6918	15.9	101.80- 141.80	109.82
5.374	5.374	0.000	148408	41.3779	15.7	71.56- 111.56	82.64
5.581	5.581	0.000	149595	40.2978	15.3	75.46- 115.46	83.30
6.012	6.012	0.000	229875	39.3532	15.0	132.73- 172.73	128.00
			Average of Peak Concentrations =		15.8		

QC Flag Legend

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

Data File: /chem/ecd8a.i/031910.b/052b5201.d

Page 1

Date : 19-MAR-2010 17:52

Client ID: RE36-10-8466MS

Instrument: ecd8a.i

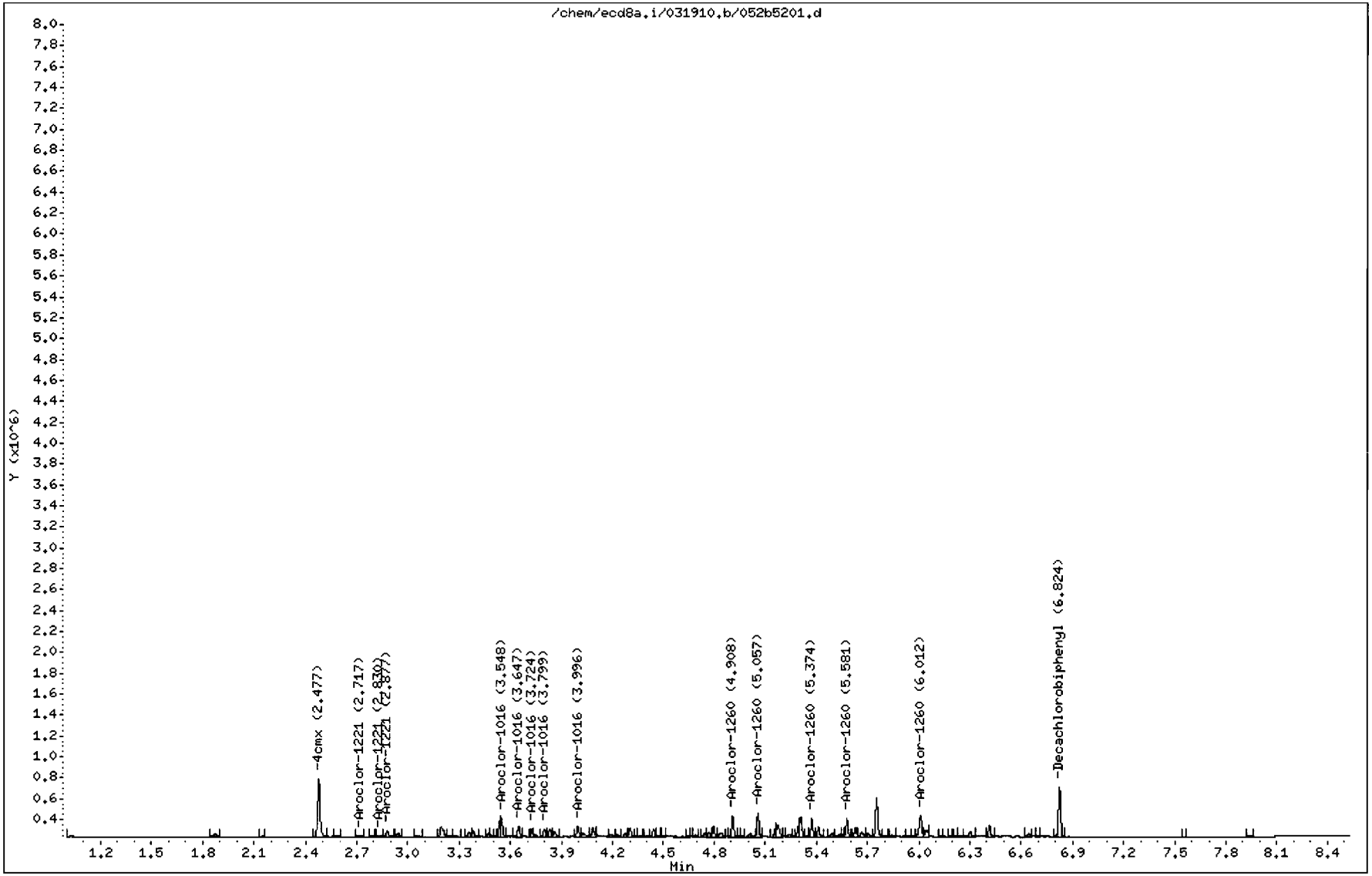
Sample Info: |1202073939|10|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/052f5201.d
Lab Smp Id: 1202073939 Client Smp ID: RE36-10-8466MS
Inj Date : 19-MAR-2010 17:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073939|10|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 52 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2202.sub
Target Version: 3.50 Sample Matrix: Soil

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

Name	Value	Description
DF	10.00000	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	12.38630	% 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		
2.249	2.248	0.001	920868	7.36922	2.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.239	0.000	610614	7.41477	2.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	216335	45.3317	17.2	80.00- 120.00	100.00(a)
3.157	3.157	0.000	239729	44.4157	16.9	107.11- 147.11	110.81
3.301	3.300	0.001	109446	46.5402	17.7	32.79- 72.79	50.59
3.393	3.392	0.001	115807	52.8421	20.1	25.87- 65.87	53.53
3.556	3.555	0.001	144487	46.9274	17.8	47.87- 87.87	66.79

Average of Peak Concentrations = 17.9

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	281357	47.7681	18.2	80.00- 120.00	100.00(a)
4.625	4.625	0.000	398648	46.9258	17.8	126.91- 166.91	141.69
4.900	4.900	0.000	237607	46.8998	17.8	64.82- 104.82	84.45
5.072	5.072	0.000	234013	43.9130	16.7	70.18- 110.18	83.17
5.483	5.483	0.000	262568	46.5465	17.7	76.66- 116.66	93.32
			Average of Peak Concentrations =		17.6		

QC Flag Legend

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

Data File: /chem/ecd8a.i/031910.b/052f5201.d

Date : 19-MAR-2010 17:52

Client ID: RE36-10-8466MS

Sample Info: |12020739391|10|

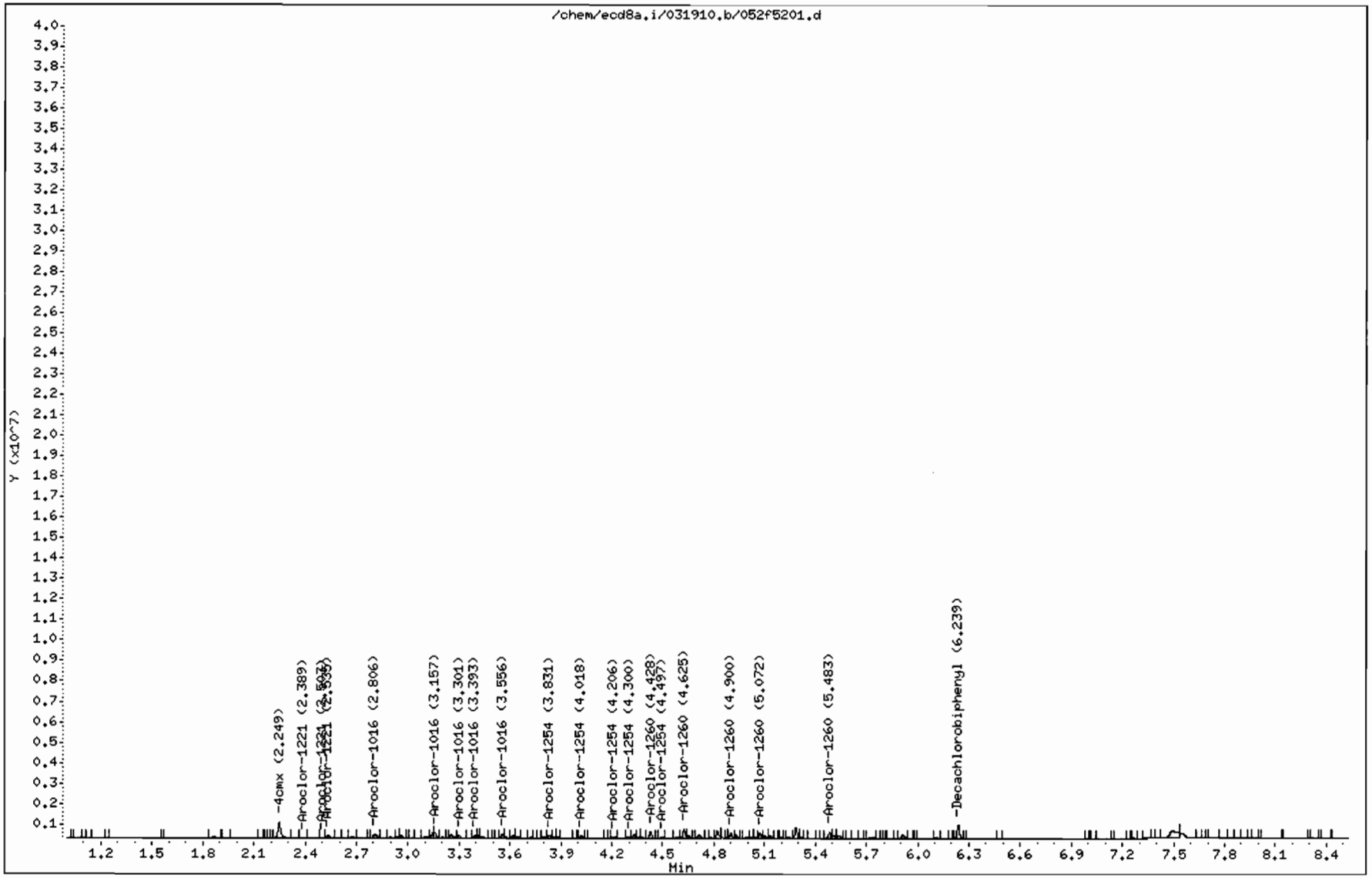
Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/053b5301.d
Lab Smp Id: 1202073940 Client Smp ID: RE36-10-8466MSD
Inj Date : 19-MAR-2010 18:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073940|10|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 07:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 53 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2202.sub
Target Version: 3.50 Sample Matrix: Soil

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

Name	Value	Description
DF	10.00000	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	12.38630	% 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		
2.478	2.477	0.001	429232	5.13545	2.0	80.00- 120.00	100.00(RM)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	342485	5.78009	2.2	80.00- 120.00	100.00(RM)

QC Flag Legend

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

Data File: /chem/ecd8a.i/031910.b/053b5301.d

Date : 19-MAR-2010 18:05

Client ID: RE36-10-8466MSD

Sample Info: |12020739401101

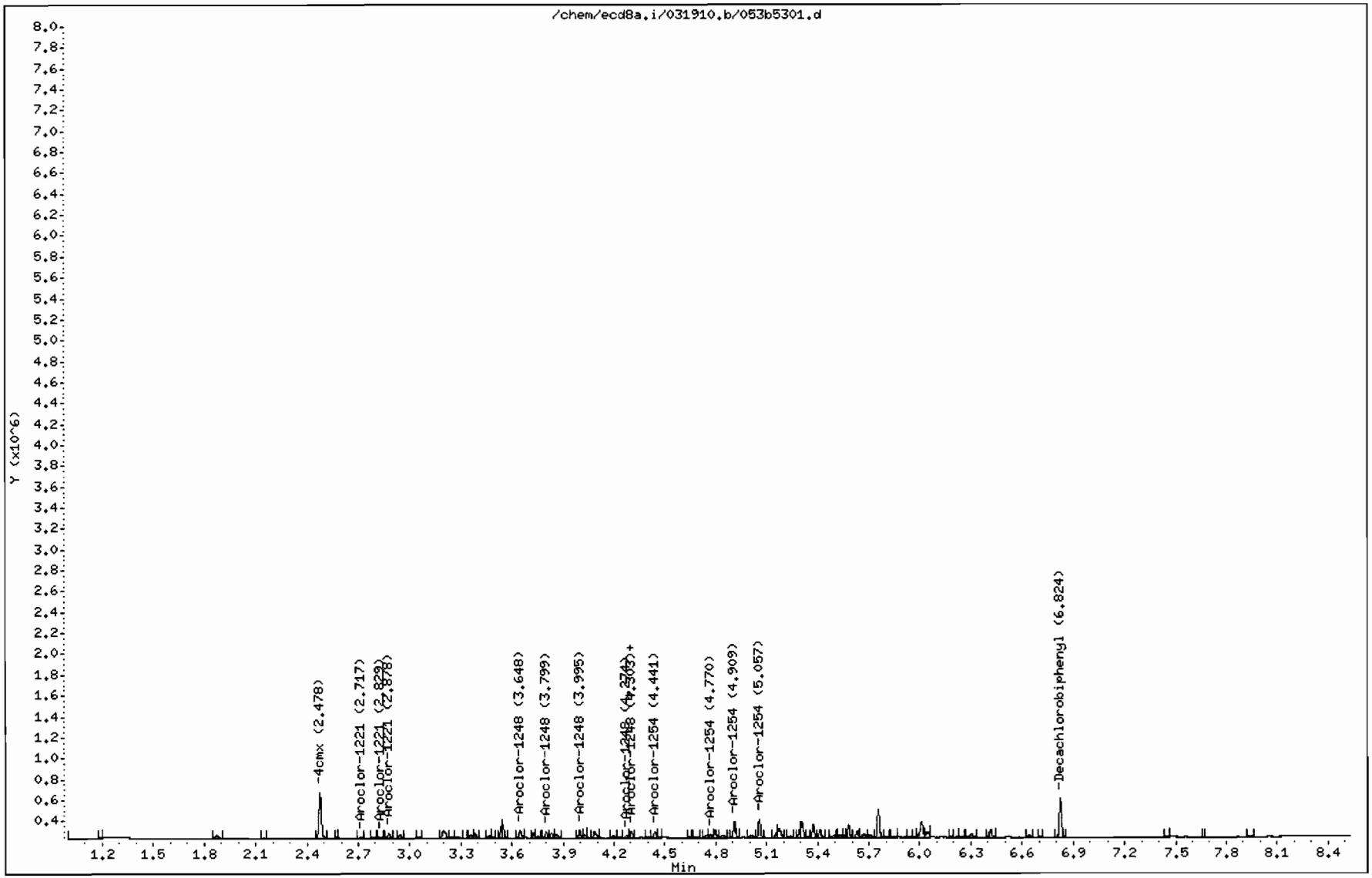
Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/031910.b/053f5301.d
Lab Smp Id: 1202073940 Client Smp ID: RE36-10-8466MSD
Inj Date : 19-MAR-2010 18:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202073940|10|
Misc Info : |ECD82P_1S|966420|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/031910.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 08:33 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 53 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2202.sub
Target Version: 3.50 Sample Matrix: Soil

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

Name	Value	Description
DF	10.00000	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	12.38630	% 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		
2.249	2.248	0.001	727827	5.82441	2.2	80.00- 120.00	100.00(RM)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.239	0.000	508340	6.17284	2.3	80.00- 120.00	100.00(M)

QC Flag Legend

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

Data File: /chem/ecd8a.i/031910.b/053f5301.d

Page 1

Date : 19-MAR-2010 18:05

Client ID: RE36-10-8466MSD

Instrument: ecd8a.i

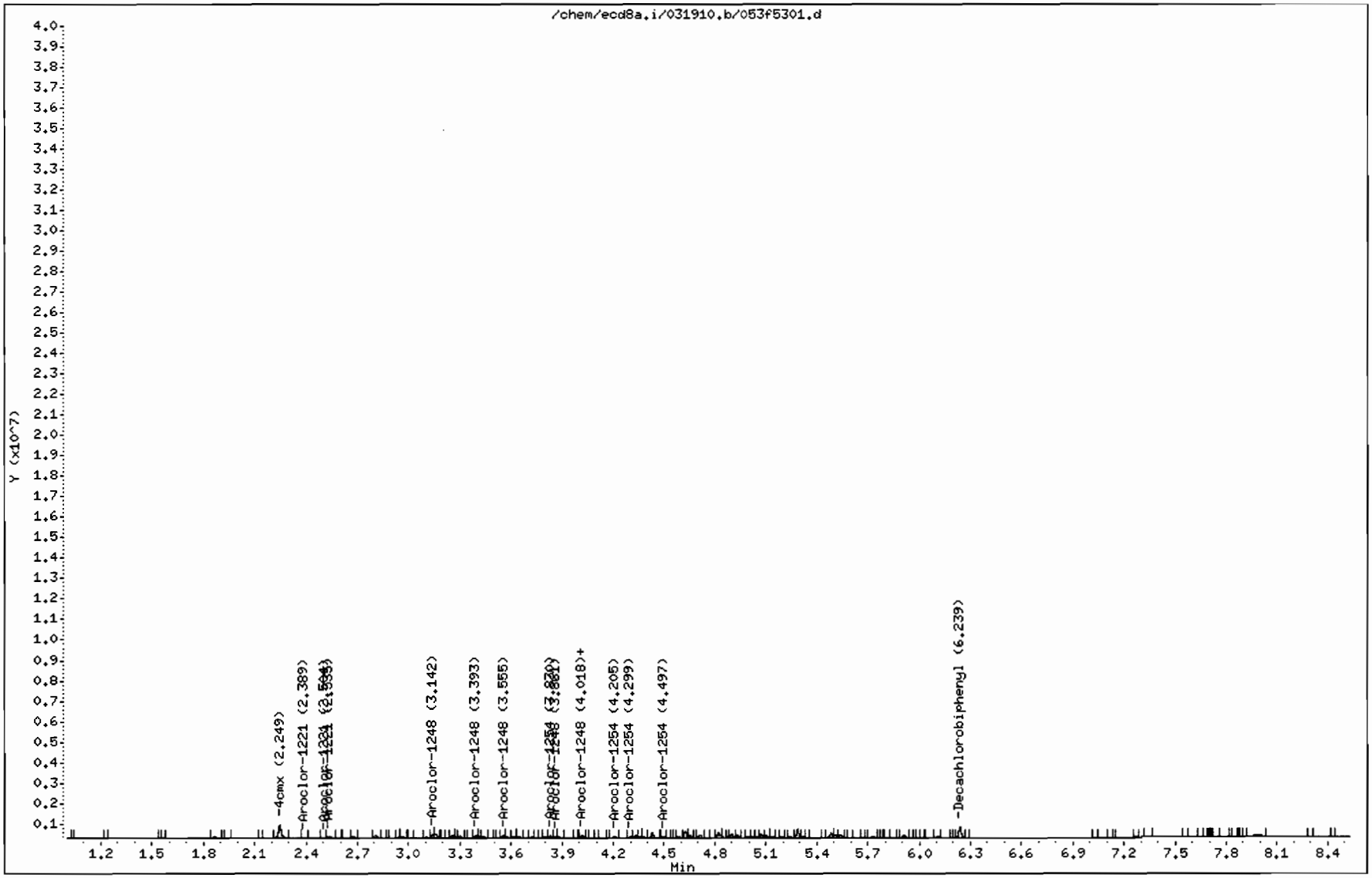
Sample Info: |1202073940|10|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966418 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202073937 MB	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
1202073938 LCS	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
248394001	18-MAR-2010 10:57:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248394002	18-MAR-2010 10:57:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248394003	18-MAR-2010 10:57:00	30.04	H2SO4/KMnl		1	8	1	0.03329
248394004	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
248394006	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
248514002	18-MAR-2010 10:57:00	30.08	H2SO4/KMnl		1	8	1	0.03324
248514003	18-MAR-2010 10:57:00	30.03	H2SO4/KMnl		1	8	1	0.0333
248517001	18-MAR-2010 10:57:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248519001	18-MAR-2010 10:57:00	30.09	H2SO4/KMnl		1	8	1	0.03323
248519002	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
248519003	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
248519004	18-MAR-2010 10:57:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248519005	18-MAR-2010 10:57:00	30.03	H2SO4/KMnl		1	8	1	0.0333
248519006	18-MAR-2010 10:57:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248519007	18-MAR-2010 10:57:00	30.05	H2SO4/KMnl		1	8	1	0.03328
248519008	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
248519009	18-MAR-2010 10:57:00	30.09	H2SO4/KMnl		1	8	1	0.03323
248519010	18-MAR-2010 10:57:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248519011	18-MAR-2010 10:57:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248526001	18-MAR-2010 10:57:00	30.01	H2SO4/KMnl		1	8	1	0.03332
1202073939 MS (248526001)	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333
1202073940 MSD (248526001)	18-MAR-2010 10:57:00	30	H2SO4/KMnl		1	8	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202073938	PCB Laboratory Control	WE100311-07	1	mL
MS	1202073939	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202073940	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/18/2010
Clean up Initials: RWH
Verified By: JAM
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198

Sample Analysis

Sample ID	Client ID
248517001	RE36-10-8292
1202065045	Method Blank (MB) **ICP**
1202065046	Laboratory Control Sample (LCS)
1202065049	248526001(RE36-10-8466L) Serial Dilution (SD)
1202065047	248526001(RE36-10-8466D) Sample Duplicate (DUP)
1202065048	248526001(RE36-10-8466S) Matrix Spike (MS)
1202065050	248526001(RE36-10-8466SD) Matrix Spike Duplicate (MSD)
1202065014	Method Blank (MB) **ICP-MS**
1202065015	Laboratory Control Sample (LCS)
1202065018	248526001(RE36-10-8466L) Serial Dilution (SD)
1202065016	248526001(RE36-10-8466D) Sample Duplicate (DUP)
1202065017	248526001(RE36-10-8466S) Matrix Spike (MS)
1202065024	248526001(RE36-10-8466SD) Matrix Spike Duplicate (MSD)
1202069763	Method Blank (MB) **CVAA**
1202069764	Laboratory Control Sample (LCS)
1202069767	248418001(RE11-10-1862L) Serial Dilution (SD)
1202069765	248418001(RE11-10-1862D) Sample Duplicate (DUP)
1202069766	248418001(RE11-10-1862S) Matrix Spike (MS)
1202069768	248418001(RE11-10-1862SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	962575, 962569 and 964741
Prep Batch :	962573, 962563 and 964740
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 7300 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 standards met the advisory control limits with the exceptions of beryllium and uranium that recovered outside of the advisory control 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 for all applicable analytes.

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 analyzed with this SDG met the acceptance criteria of percent recovery 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 samples were selected as the quality control (QC) samples for this SDG: 248526001 (RE36-10-8466)-ICP and ICP-MS and 248418001 (RE11-10-1862)-CVAA.

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 barium, calcium, lead, magnesium, potassium, sodium and zinc 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 and potassium 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 exceptions of aluminum, barium, calcium, chromium, iron, lead, magnesium, manganese, potassium and zinc as indicated by the "*" qualifiers.

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 calcium and chromium 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).

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 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 DER was generated for this SDG: DER ID 814413. 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: Nick-Colet Elmore **Date:** 4.15.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2198 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248517001 **BASIS:** Dry Weight **DATE COLLECTED** 25-FEB-10

CLIENT ID: RE36-10-8292 **LEVEL:** Low **DATE RECEIVED** 03-MAR-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	3420000	ug/Kg		8130	23900	23900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-36-0	Antimony	1200	ug/Kg	U	394	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-38-2	Arsenic	0.952	mg/kg	J	0.247	1.24	1.24	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-39-3	Barium	54800	ug/Kg		120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-41-7	Beryllium	0.350	mg/kg		0.0247	0.124	0.124	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-43-9	Cadmium	598	ug/Kg	U	120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-70-2	Calcium	1940000	ug/Kg		9560	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-47-3	Chromium	15300	ug/Kg		179	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-48-4	Cobalt	1960	ug/Kg		179	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-50-8	Copper	4800	ug/Kg		359	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-89-6	Iron	6780000	ug/Kg		9560	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-92-1	Lead	7840	ug/Kg		299	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-95-4	Magnesium	807000	ug/Kg		10200	35900	35900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-96-5	Manganese	424000	ug/Kg		239	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575
7439-97-6	Mercury	56.7	ug/kg		4.9	14.4	14.4	1	AV	JXL1	03/16/10 14:07	031610S1-3	964741
7440-02-0	Nickel	2.31	mg/kg		0.124	0.495	0.495	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-09-7	Potassium	912000	ug/Kg		7650	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7782-49-2	Selenium	1.24	mg/kg	U	0.618	1.24	1.24	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-22-4	Silver	3690	ug/Kg		120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-23-5	Sodium	56300	ug/Kg		8370	29900	29900	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-28-0	Thallium	0.247	mg/kg	U	0.0742	0.247	0.247	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-61-1	Uranium	0.748	mg/kg		0.0163	0.0495	0.0495	2	MS	SKJ	04/14/10 01:01	100413-2	962569
7440-62-2	Vanadium	7770	ug/Kg		120	598	598	1	P	HSC	03/30/10 22:06	033010B-1	962575
7440-66-6	Zinc	31900	ug/Kg		394	1200	1200	1	P	HSC	03/30/10 22:06	033010B-1	962575

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962569	962563	SW846 3050B	0.519	g	50	mL	03/16/10	AXG2
962575	962573	SW846 3050B	0.537	g	50	mL	03/16/10	AXG2
964741	964740	SW846 7471A Prep	0.535	g	30	mL	03/15/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.24	ug/L	5	ug/L	104.8	90.0 – 110.0	AV	16–MAR–10 09:48	031610S1–3
	Aluminum	5280	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Barium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Chromium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Cobalt	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Copper	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Iron	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Lead	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Magnesium	5450	ug/L	5000	ug/L	109	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Manganese	527	ug/L	500	ug/L	105.5	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Potassium	2600	ug/L	2500	ug/L	104.1	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Silver	267	ug/L	250	ug/L	106.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Sodium	2600	ug/L	2500	ug/L	104	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Vanadium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Zinc	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Arsenic	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	13–APR–10 19:08	100413–2
	Beryllium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	13–APR–10 19:08	100413–2
	Nickel	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	13–APR–10 19:08	100413–2
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	13–APR–10 19:08	100413–2
	Thallium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	13–APR–10 19:08	100413–2
	Uranium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	13–APR–10 19:08	100413–2
CCV01										
	Mercury	5.18	ug/L	5	ug/L	103.6	80.0 – 120.0	AV	16–MAR–10 09:53	031610S1–3
	Aluminum	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Antimony	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Barium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Chromium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Cobalt	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Lead	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Silver	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Zinc	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Arsenic	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	13–APR–10 19:28	100413–2
	Beryllium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	13–APR–10 19:28	100413–2
	Nickel	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	13–APR–10 19:28	100413–2
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	13–APR–10 19:28	100413–2
	Thallium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	13–APR–10 19:28	100413–2
	Uranium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	13–APR–10 19:28	100413–2
CCV02										
	Mercury	5.12	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	16–MAR–10 10:09	031610S1–3
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Antimony	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Cadmium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Calcium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Chromium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Magnesium	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Manganese	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Zinc	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 15:54	033010B–1
	Arsenic	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	13–APR–10 20:09	100413–2
	Beryllium	55.7	ug/L	50	ug/L	111.4	90.0 – 110.0	MS	13–APR–10 20:09	100413–2
	Nickel	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	13–APR–10 20:09	100413–2
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	13–APR–10 20:09	100413–2
	Thallium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	13–APR–10 20:09	100413–2
	Uranium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	13–APR–10 20:09	100413–2
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.9	80.0 – 120.0	AV	16–MAR–10 10:29	031610S1–3
	Aluminum	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Chromium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Copper	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Manganese	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Silver	510	ug/L	500	ug/L	102	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Arsenic	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	13–APR–10 20:42	100413–2
	Beryllium	54.8	ug/L	50	ug/L	109.5	90.0 – 110.0	MS	13–APR–10 20:42	100413–2
	Nickel	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	13–APR–10 20:42	100413–2
	Selenium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	13–APR–10 20:42	100413–2
	Thallium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	13–APR–10 20:42	100413–2
	Uranium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	13–APR–10 20:42	100413–2
CCV04										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	16–MAR–10 10:50	031610S1–3
	Aluminum	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Arsenic	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	13–APR–10 21:19	100413–2
	Beryllium	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	13–APR–10 21:19	100413–2

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	13–APR–10 21:19	100413–2
	Selenium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	13–APR–10 21:19	100413–2
	Thallium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	13–APR–10 21:19	100413–2
	Uranium	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	13–APR–10 21:19	100413–2
CCV05										
	Mercury	5.13	ug/L	5	ug/L	102.5	80.0 – 120.0	AV	16–MAR–10 11:10	031610S1–3
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Antimony	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Copper	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Lead	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Potassium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Silver	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Arsenic	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	13–APR–10 22:00	100413–2
	Beryllium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	13–APR–10 22:00	100413–2
	Nickel	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	13–APR–10 22:00	100413–2
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	13–APR–10 22:00	100413–2
	Thallium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	13–APR–10 22:00	100413–2
	Uranium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	13–APR–10 22:00	100413–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV06										
	Mercury	5.4	ug/L	5	ug/L	108	80.0 – 120.0	AV	16–MAR–10 11:30	031610S1–3
	Aluminum	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Antimony	510	ug/L	500	ug/L	102	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Chromium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Copper	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Zinc	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 17:18	033010B–1
	Arsenic	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	13–APR–10 22:33	100413–2
	Beryllium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	13–APR–10 22:33	100413–2
	Nickel	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	13–APR–10 22:33	100413–2
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	13–APR–10 22:33	100413–2
	Thallium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	13–APR–10 22:33	100413–2
	Uranium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	13–APR–10 22:33	100413–2
CCV07										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	16–MAR–10 11:50	031610S1–3
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 17:40	033010B–1
	Antimony	510	ug/L	500	ug/L	102	90.0 – 110.0	P	30–MAR–10 17:40	033010B–1
	Barium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 17:40	033010B–1
	Cadmium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 17:40	033010B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Copper	505	ug/L	500	ug/L	101	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Lead	513	ug/L	500	ug/L	102.7	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Silver	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Zinc	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Arsenic	50.8	ug/L	50	ug/L	101.7	90.0 - 110.0	MS	13-APR-10 23:01	100413-2
	Beryllium	54.1	ug/L	50	ug/L	108.2	90.0 - 110.0	MS	13-APR-10 23:01	100413-2
	Nickel	48.4	ug/L	50	ug/L	96.8	90.0 - 110.0	MS	13-APR-10 23:01	100413-2
	Selenium	50.5	ug/L	50	ug/L	101.1	90.0 - 110.0	MS	13-APR-10 23:01	100413-2
	Thallium	49.7	ug/L	50	ug/L	99.3	90.0 - 110.0	MS	13-APR-10 23:01	100413-2
	Uranium	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	13-APR-10 23:01	100413-2
CCV08										
	Mercury	5.05	ug/L	5	ug/L	100.9	80.0 - 120.0	AV	16-MAR-10 12:10	031610S1-3
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Cadmium	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Chromium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Magnesium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Manganese	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30-MAR-10 18:00	033010B-1
	Arsenic	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Beryllium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Nickel	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Selenium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Thallium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
	Uranium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	13-APR-10 23:47	100413-2
CCV09										
	Mercury	5.08	ug/L	5	ug/L	101.7	80.0 – 120.0	AV	16-MAR-10 12:30	031610S1-3
	Aluminum	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Antimony	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Cadmium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Cobalt	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Iron	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Potassium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30-MAR-10 18:22	033010B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 18:22	033010B–1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 18:22	033010B–1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–MAR–10 18:22	033010B–1
	Arsenic	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	14–APR–10 00:32	100413–2
	Beryllium	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	14–APR–10 00:32	100413–2
	Nickel	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	14–APR–10 00:32	100413–2
	Selenium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	14–APR–10 00:32	100413–2
	Thallium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	14–APR–10 00:32	100413–2
	Uranium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14–APR–10 00:32	100413–2
CCV10										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	16–MAR–10 12:51	031610S1–3
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Silver	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 18:44	033010B–1
	Arsenic	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	14–APR–10 01:17	100413–2
	Beryllium	54.2	ug/L	50	ug/L	108.4	90.0 – 110.0	MS	14–APR–10 01:17	100413–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	47.7	ug/L	50	ug/L	95.4	90.0 – 110.0	MS	14–APR–10 01:17	100413–2
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	14–APR–10 01:17	100413–2
	Thallium	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	14–APR–10 01:17	100413–2
	Uranium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	14–APR–10 01:17	100413–2
CCV11										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	16–MAR–10 13:11	031610S1–3
	Aluminum	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Antimony	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Barium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Manganese	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Potassium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 19:02	033010B–1
	Arsenic	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	14–APR–10 01:54	100413–2
	Beryllium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	14–APR–10 01:54	100413–2
	Nickel	47.9	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	14–APR–10 01:54	100413–2
	Selenium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	14–APR–10 01:54	100413–2
	Thallium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	14–APR–10 01:54	100413–2
	Uranium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	14–APR–10 01:54	100413–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV12										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	16–MAR–10 13:31	031610S1–3
	Aluminum	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Iron	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Manganese	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Sodium	10000	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Vanadium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–MAR–10 19:19	033010B–1
	Arsenic	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	14–APR–10 02:27	100413–2
	Beryllium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	14–APR–10 02:27	100413–2
	Nickel	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	14–APR–10 02:27	100413–2
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	14–APR–10 02:27	100413–2
	Thallium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	14–APR–10 02:27	100413–2
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	14–APR–10 02:27	100413–2
CCV13										
	Mercury	5.34	ug/L	5	ug/L	106.7	80.0 – 120.0	AV	16–MAR–10 13:52	031610S1–3
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Chromium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Magnesium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Manganese	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–MAR–10 19:43	033010B–1
CCV14										
	Mercury	5.33	ug/L	5	ug/L	106.7	80.0 – 120.0	AV	16–MAR–10 14:12	031610S1–3
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Manganese	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Potassium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Silver	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–MAR–10 20:08	033010B–1
CCV15										
	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Cadmium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Lead	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Potassium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Silver	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 20:27	033010B–1
CCV16										
	Aluminum	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Potassium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–MAR–10 20:44	033010B–1
CCV17										
	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Barium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Calcium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Chromium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Silver	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–MAR–10 21:04	033010B–1
CCV18										
	Aluminum	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Copper	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Potassium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	30–MAR–10 21:18	033010B–1
CCV19										
	Aluminum	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Barium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Copper	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 21:37	033010B–1
CCV20										
	Aluminum	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Cadmium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Cobalt	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Iron	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Lead	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Magnesium	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Manganese	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Potassium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Sodium	10200	ug/L	10000	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 21:55	033010B–1
CCV21										
	Aluminum	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Antimony	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Cadmium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Calcium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Chromium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Copper	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Potassium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Silver	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 22:16	033010B–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2198

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.165	ug/L	.2	ug/L	82.5	70.0 – 130.0	AV	16-MAR-10 09:51	031610S1-3
	Nickel	2.28	ug/L	2	ug/L	114.1	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Thallium	1.22	ug/L	1	ug/L	121.8	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Beryllium	.662	ug/L	.5	ug/L	132.4	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Uranium	.292	ug/L	.2	ug/L	146	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Selenium	5.77	ug/L	5	ug/L	115.4	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
	Arsenic	6.05	ug/L	5	ug/L	121	70.0 – 130.0	MS	13-APR-10 19:16	100413-2
PQL01										
	Aluminum	218	ug/L	200	ug/L	108.8	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Iron	103	ug/L	100	ug/L	102.5	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Lead	9.3	ug/L	10	ug/L	93	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Magnesium	315	ug/L	300	ug/L	104.9	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Manganese	10.6	ug/L	10	ug/L	105.7	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Potassium	189	ug/L	150	ug/L	126.2	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Silver	6.06	ug/L	5	ug/L	121.1	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Sodium	294	ug/L	300	ug/L	98.1	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Antimony	10.4	ug/L	10	ug/L	103.9	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Barium	5.22	ug/L	5	ug/L	104.5	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Cadmium	5.03	ug/L	5	ug/L	100.6	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Chromium	4.93	ug/L	5	ug/L	98.6	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Cobalt	5.18	ug/L	5	ug/L	103.7	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Copper	10.4	ug/L	10	ug/L	104.4	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Vanadium	5.56	ug/L	5	ug/L	111.3	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Zinc	10.2	ug/L	10	ug/L	101.8	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1
	Calcium	201	ug/L	200	ug/L	100.8	70.0 – 130.0	P	30-MAR-10 15:21	033010B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 09:50	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 15:18	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 15:18	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:18	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:18	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 15:18	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 15:18	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 15:18	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 15:18	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 15:18	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 15:18	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 15:18	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 15:18	033010B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	30–MAR–10 15:18	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:18	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 15:18	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:18	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 15:18	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 19:12	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 19:12	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 19:12	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 19:12	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 19:12	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 19:12	100413–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 09:55	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 15:40	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 15:40	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:40	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:40	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 15:40	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	30–MAR–10 15:40	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 15:40	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 15:40	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 15:40	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 15:40	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 15:40	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 15:40	033010B–1
	Potassium	103.4	+/–250	J	64.0	250	SOL	P	30–MAR–10 15:40	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:40	033010B–1
	Sodium	98.8	+/–250	J	70.0	250	SOL	P	30–MAR–10 15:40	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:40	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 15:40	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 19:32	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 19:32	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 19:32	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 19:32	100413–2
	Thallium	0.324	+/–1	J	0.3	1.0	SOL	MS	13–APR–10 19:32	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 19:32	100413–2
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 10:11	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 15:56	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 15:56	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:56	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:56	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 15:56	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 15:56	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 15:56	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 15:56	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 15:56	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 15:56	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 15:56	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	30–MAR–10 15:56	033010B–1
	Potassium	68.02	+/–250	J	64.0	250	SOL	P	30–MAR–10 15:56	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:56	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 15:56	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 15:56	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 15:56	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 20:13	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 20:13	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 20:13	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 20:13	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 20:13	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 20:13	100413–2
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 10:31	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 16:16	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 16:16	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:16	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:16	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 16:16	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 16:16	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 16:16	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 16:16	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 16:16	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 16:16	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 16:16	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 16:16	033010B–1
	Potassium	96.01	+/–250	J	64.0	250	SOL	P	30–MAR–10 16:16	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:16	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 16:16	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:16	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 16:16	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 20:46	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 20:46	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 20:46	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 20:46	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 20:46	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 20:46	100413–2
CCB04										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 10:51	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 16:35	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 16:35	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:35	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:35	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 16:35	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 16:35	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 16:35	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 16:35	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 16:35	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 16:35	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 16:35	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 16:35	033010B–1
	Potassium	67.52	+/–250	J	64.0	250	SOL	P	30–MAR–10 16:35	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:35	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 16:35	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:35	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 16:35	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 21:23	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 21:23	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 21:23	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 21:23	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 21:23	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 21:23	100413–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 11:11	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 16:59	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 16:59	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:59	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:59	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 16:59	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 16:59	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 16:59	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 16:59	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 16:59	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 16:59	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 16:59	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 16:59	033010B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	30–MAR–10 16:59	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:59	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 16:59	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 16:59	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 16:59	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 22:04	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 22:04	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 22:04	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 22:04	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 22:04	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 22:04	100413–2
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 11:31	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 17:21	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 17:21	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:21	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:21	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 17:21	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	30–MAR–10 17:21	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 17:21	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 17:21	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 17:21	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 17:21	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 17:21	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 17:21	033010B–1
	Potassium	64.34	+/–250	J	64.0	250	SOL	P	30–MAR–10 17:21	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:21	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 17:21	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:21	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 17:21	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 22:37	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 22:37	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 22:37	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 22:37	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 22:37	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 22:37	100413–2
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 11:52	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 17:42	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 17:42	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:42	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:42	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 17:42	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 17:42	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 17:42	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 17:42	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 17:42	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 17:42	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 17:42	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	30–MAR–10 17:42	033010B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	30–MAR–10 17:42	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:42	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 17:42	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 17:42	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 17:42	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 23:05	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 23:05	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 23:05	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 23:05	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 23:05	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 23:05	100413–2
CCB08										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 12:12	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 18:02	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 18:02	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:02	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:02	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 18:02	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 18:02	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 18:02	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 18:02	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 18:02	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 18:02	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 18:02	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 18:02	033010B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	30–MAR–10 18:02	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:02	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 18:02	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:02	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 18:02	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–APR–10 23:51	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–APR–10 23:51	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–APR–10 23:51	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–APR–10 23:51	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–APR–10 23:51	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	13–APR–10 23:51	100413–2
CCB09										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 12:32	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 18:24	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 18:24	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:24	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:24	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 18:24	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 18:24	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 18:24	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 18:24	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 18:24	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 18:24	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 18:24	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 18:24	033010B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	30–MAR–10 18:24	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:24	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 18:24	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:24	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 18:24	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–APR–10 00:36	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–APR–10 00:36	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–APR–10 00:36	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–APR–10 00:36	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–APR–10 00:36	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–APR–10 00:36	100413–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 12:52	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 18:46	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 18:46	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:46	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:46	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 18:46	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 18:46	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 18:46	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 18:46	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 18:46	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 18:46	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 18:46	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 18:46	033010B–1
	Potassium	81.43	+/–250	J	64.0	250	SOL	P	30–MAR–10 18:46	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:46	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 18:46	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 18:46	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 18:46	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–APR–10 01:21	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–APR–10 01:21	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–APR–10 01:21	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–APR–10 01:21	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–APR–10 01:21	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–APR–10 01:21	100413–2
CCB11										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 13:13	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 19:04	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 19:04	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:04	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:04	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 19:04	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	30–MAR–10 19:04	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 19:04	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 19:04	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 19:04	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 19:04	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 19:04	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 19:04	033010B–1
	Potassium	83.35	+/–250	J	64.0	250	SOL	P	30–MAR–10 19:04	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:04	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 19:04	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:04	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 19:04	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–APR–10 01:58	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–APR–10 01:58	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–APR–10 01:58	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–APR–10 01:58	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–APR–10 01:58	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–APR–10 01:58	100413–2
CCB12										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–MAR–10 13:33	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 19:21	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 19:21	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:21	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:21	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 19:21	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 19:21	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 19:21	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 19:21	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 19:21	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 19:21	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 19:21	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	30–MAR–10 19:21	033010B–1
	Potassium	120.74	+/–250	J	64.0	250	SOL	P	30–MAR–10 19:21	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:21	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 19:21	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:21	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 19:21	033010B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	14–APR–10 02:31	100413–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–APR–10 02:31	100413–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–APR–10 02:31	100413–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	14–APR–10 02:31	100413–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–APR–10 02:31	100413–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–APR–10 02:31	100413–2
CCB13										
	Mercury	–0.068	+/–.2	J	0.068	0.2	SOL	AV	16–MAR–10 13:53	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 19:45	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 19:45	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:45	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:45	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 19:45	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 19:45	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 19:45	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 19:45	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 19:45	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 19:45	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 19:45	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 19:45	033010B–1
	Potassium	114.92	+/–250	J	64.0	250	SOL	P	30–MAR–10 19:45	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:45	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 19:45	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 19:45	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 19:45	033010B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB14										
	Mercury	–0.069	+/–.2	J	0.068	0.2	SOL	AV	16–MAR–10 14:14	031610S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 20:10	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 20:10	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:10	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:10	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 20:10	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 20:10	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 20:10	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 20:10	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 20:10	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 20:10	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 20:10	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 20:10	033010B–1
	Potassium	111.16	+/–250	J	64.0	250	SOL	P	30–MAR–10 20:10	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:10	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 20:10	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:10	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 20:10	033010B–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 20:29	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 20:29	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:29	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:29	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 20:29	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 20:29	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 20:29	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 20:29	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 20:29	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 20:29	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 20:29	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 20:29	033010B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	98.84	+/–250	J	64.0	250	SOL	P	30–MAR–10 20:29	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:29	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 20:29	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:29	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 20:29	033010B–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 20:46	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 20:46	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:46	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:46	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 20:46	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 20:46	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 20:46	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 20:46	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 20:46	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 20:46	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 20:46	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 20:46	033010B–1
	Potassium	73.8	+/–250	J	64.0	250	SOL	P	30–MAR–10 20:46	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:46	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 20:46	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 20:46	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 20:46	033010B–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 21:06	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:06	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:06	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:06	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:06	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:06	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:06	033010B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	30–MAR–10 21:06	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:06	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 21:06	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 21:06	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 21:06	033010B–1
	Potassium	105.87	+/–250	J	64.0	250	SOL	P	30–MAR–10 21:06	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:06	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 21:06	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:06	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:06	033010B–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 21:20	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:20	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:20	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:20	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:20	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:20	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:20	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 21:20	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:20	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 21:20	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 21:20	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 21:20	033010B–1
	Potassium	80.35	+/–250	J	64.0	250	SOL	P	30–MAR–10 21:20	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:20	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 21:20	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:20	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:20	033010B–1
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 21:39	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:39	033010B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:39	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:39	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:39	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:39	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:39	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 21:39	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:39	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 21:39	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 21:39	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 21:39	033010B–1
	Potassium	95.72	+/–250	J	64.0	250	SOL	P	30–MAR–10 21:39	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:39	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 21:39	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:39	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:39	033010B–1
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 21:57	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:57	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:57	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:57	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:57	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:57	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 21:57	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 21:57	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 21:57	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 21:57	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 21:57	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 21:57	033010B–1
	Potassium	160.19	+/–250	J	64.0	250	SOL	P	30–MAR–10 21:57	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 21:57	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 21:57	033010B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198

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	SOL	P	30–MAR–10 21:57	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 21:57	033010B–1
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	30–MAR–10 22:18	033010B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 22:18	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 22:18	033010B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 22:18	033010B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 22:18	033010B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 22:18	033010B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	30–MAR–10 22:18	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	30–MAR–10 22:18	033010B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	30–MAR–10 22:18	033010B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	30–MAR–10 22:18	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	30–MAR–10 22:18	033010B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	30–MAR–10 22:18	033010B–1
	Potassium	132.82	+/–250	J	64.0	250	SOL	P	30–MAR–10 22:18	033010B–1
	Silver	1.23	+/–5	J	1.0	5.0	SOL	P	30–MAR–10 22:18	033010B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	30–MAR–10 22:18	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	30–MAR–10 22:18	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	30–MAR–10 22:18	033010B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2198

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202065014								
	Arsenic	0.199	mg/kg	+/–0.996	U	MS	0.199	0.996
	Beryllium	0.0199	mg/kg	+/–0.0996	U	MS	0.0199	0.0996
	Nickel	0.0996	mg/kg	+/–0.398	U	MS	0.0996	0.398
	Selenium	0.498	mg/kg	+/–0.996	U	MS	0.498	0.996
	Thallium	0.0598	mg/kg	+/–0.199	U	MS	0.0598	0.199
	Uranium	0.0132	mg/kg	+/–0.0398	U	MS	0.0132	0.0398
1202065045								
	Aluminum	6680	ug/Kg	+/–19600	U	P	6680	19600
	Antimony	324	ug/Kg	+/–982	U	P	324	982
	Barium	98.2	ug/Kg	+/–491	U	P	98.2	491
	Cadmium	98.2	ug/Kg	+/–491	U	P	98.2	491
	Calcium	7860	ug/Kg	+/–24600	U	P	7860	24600
	Chromium	147	ug/Kg	+/–491	U	P	147	491
	Cobalt	147	ug/Kg	+/–491	U	P	147	491
	Copper	295	ug/Kg	+/–982	U	P	295	982
	Iron	7860	ug/Kg	+/–24600	U	P	7860	24600
	Lead	246	ug/Kg	+/–982	U	P	246	982
	Magnesium	8350	ug/Kg	+/–29500	U	P	8350	29500
	Manganese	196	ug/Kg	+/–982	U	P	196	982
	Potassium	12400	ug/Kg	+/–24600	J	P	6290	24600
	Silver	98.2	ug/Kg	+/–491	U	P	98.2	491
	Sodium	6880	ug/Kg	+/–24600	U	P	6880	24600
	Vanadium	98.2	ug/Kg	+/–491	U	P	98.2	491
	Zinc	324	ug/Kg	+/–982	U	P	324	982
1202069763								
	Mercury	–4.08	ug/kg	+/–11.3	J	AV	3.86	11.3

METALS
–4–
Interference Check Sample

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	512000	ug/L	500000	ug/L	102	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Antimony	1.77	ug/L					30–MAR–10 15:23	033010B–1
	Barium	0.369	ug/L					30–MAR–10 15:23	033010B–1
	Cadmium	–1.71	ug/L					30–MAR–10 15:23	033010B–1
	Calcium	489000	ug/L	500000	ug/L	97.7	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Chromium	1.08	ug/L					30–MAR–10 15:23	033010B–1
	Cobalt	–6.45	ug/L					30–MAR–10 15:23	033010B–1
	Copper	3.23	ug/L					30–MAR–10 15:23	033010B–1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Lead	–4.72	ug/L					30–MAR–10 15:23	033010B–1
	Magnesium	491000	ug/L	500000	ug/L	98.1	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Manganese	3.1	ug/L					30–MAR–10 15:23	033010B–1
	Potassium	–113.0	ug/L					30–MAR–10 15:23	033010B–1
	Silver	0.19	ug/L					30–MAR–10 15:23	033010B–1
	Sodium	52.7	ug/L					30–MAR–10 15:23	033010B–1
	Vanadium	2.75	ug/L					30–MAR–10 15:23	033010B–1
	Zinc	8.7	ug/L					30–MAR–10 15:23	033010B–1
ICSAB01									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Antimony	509	ug/L	500	ug/L	102	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Cadmium	480	ug/L	500	ug/L	96	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Chromium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Cobalt	451	ug/L	500	ug/L	90.2	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Copper	547	ug/L	500	ug/L	109	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Iron	193000	ug/L	200000	ug/L	96.4	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Lead	472	ug/L	500	ug/L	94.5	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 – 120.0	30–MAR–10 15:25	033010B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2198

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	488	ug/L	500	ug/L	97.6	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Potassium	5610	ug/L	5000	ug/L	112	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Sodium	5450	ug/L	5000	ug/L	109	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Vanadium	523	ug/L	500	ug/L	105	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Zinc	499	ug/L	500	ug/L	99.7	80.0 – 120.0	30–MAR–10 15:25	033010B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2198

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									
	Arsenic	–0.361	ug/L					13–APR–10 19:20	100413–2
	Beryllium	0.103	ug/L					13–APR–10 19:20	100413–2
	Nickel	2.78	ug/L					13–APR–10 19:20	100413–2
	Selenium	–1.05	ug/L					13–APR–10 19:20	100413–2
	Thallium	–0.004	ug/L					13–APR–10 19:20	100413–2
	Uranium	–0.012	ug/L					13–APR–10 19:20	100413–2
ICSAB01									
	Arsenic	20.6	ug/L	20	ug/L	103	80.0 – 120.0	13–APR–10 19:24	100413–2
	Beryllium	22.1	ug/L	20	ug/L	110	80.0 – 120.0	13–APR–10 19:24	100413–2
	Nickel	21.7	ug/L	23.31	ug/L	93	80.0 – 120.0	13–APR–10 19:24	100413–2
	Selenium	20.9	ug/L	20	ug/L	104	80.0 – 120.0	13–APR–10 19:24	100413–2
	Thallium	19.3	ug/L	20	ug/L	96.7	80.0 – 120.0	13–APR–10 19:24	100413–2
	Uranium	21.4	ug/L	20	ug/L	107	80.0 – 120.0	13–APR–10 19:24	100413–2

METALS
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Matrix Spike Summary

SDG NO. 10–2198 **Client ID** RE36–10–8466S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 248526001 **Spike ID:** 1202065017

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	9.62		0.855	J	8.97	97.7		MS
Beryllium	mg/kg	75–125	5.95		0.46		5.61	98		MS
Nickel	mg/kg	75–125	9.59		3.22		5.61	114		MS
Selenium	mg/kg	75–125	2		0.567	U	2.24	89		MS
Thallium	mg/kg	75–125	9.3		0.0681	U	11.2	82.8		MS
Uranium	mg/kg	75–125	5.92		0.579		5.61	95.3		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2198 **Client ID** RE36–10–8466SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 248526001 **Spike ID:** 1202065024

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75–125	4.98		0.46		5.12	88.3		MS
Nickel	mg/kg	75–125	9.18		3.22		5.12	116		MS
Selenium	mg/kg	75–125	1.65		0.567	U	2.05	80.5		MS
Thallium	mg/kg	75–125	8.91		0.0681	U	10.2	86.8		MS
Uranium	mg/kg	75–125	5.4		0.579		5.12	94.2		MS
Arsenic	mg/kg	75–125	8.1		0.855	J	8.2	88.4		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2198 **Client ID** RE36–10–8466S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 248526001 **Spike ID:** 1202065048

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/Kg	75–125	47500		357	U	53300	89.1		P
Barium	ug/Kg	75–125	148000		37400		53300	207	N	P
Cadmium	ug/Kg	75–125	52000		108	U	53300	97.5		P
Calcium	ug/Kg	75–125	1220000		320000		533000	169	N	P
Chromium	ug/Kg	75–125	60800		17300		53300	81.5		P
Cobalt	ug/Kg	75–125	54900		1720		53300	99.8		P
Copper	ug/Kg	75–125	58800		3160		53300	104		P
Iron	ug/Kg		13000000		7510000		533000	1040	N/A	P
Lead	ug/Kg	75–125	91300		4740		53300	162	N	P
Magnesium	ug/Kg	75–125	4080000		378000		533000	695	N	P
Manganese	ug/Kg		605000		296000		53300	580	N/A	P
Potassium	ug/Kg	75–125	4080000		1030000		533000	572	N	P
Silver	ug/Kg	75–125	51200		108	U	53300	95.9		P
Sodium	ug/Kg	75–125	2040000		1720000		533000	59.9	N	P
Vanadium	ug/Kg	75–125	72000		7270		53300	121		P
Zinc	ug/Kg	75–125	294000		37700		53300	480	N	P
Aluminum	ug/Kg		9390000		2210000		533000	1350	N/A	P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–2198 **Client ID** RE36–10–8466SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 248526001 **Spike ID:** 1202065050

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	4110000		2210000		556000	342	N	P
Antimony	ug/Kg	75–125	51200		357	U	55600	92.1		P
Barium	ug/Kg	75–125	86900		37400		55600	88.9		P
Cadmium	ug/Kg	75–125	55700		108	U	55600	100		P
Calcium	ug/Kg	75–125	888000		320000		556000	102		P
Chromium	ug/Kg	75–125	75300		17300		55600	104		P
Cobalt	ug/Kg	75–125	56200		1720		55600	97.9		P
Copper	ug/Kg	75–125	61300		3160		55600	104		P
Iron	ug/Kg		8300000		7510000		556000	141	N/A	P
Lead	ug/Kg	75–125	60100		4740		55600	99.5		P
Magnesium	ug/Kg	75–125	1050000		378000		556000	122		P
Manganese	ug/Kg		319000		296000		55600	42.6	N/A	P
Potassium	ug/Kg	75–125	1760000		1030000		556000	131	N	P
Silver	ug/Kg	75–125	54100		108	U	55600	97.3		P
Sodium	ug/Kg	75–125	2320000		1720000		556000	106		P
Vanadium	ug/Kg	75–125	62400		7270		55600	99		P
Zinc	ug/Kg	75–125	92600		37700		55600	98.7		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2198 **Client ID** RE11–10–1862S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 248418001 **Spike ID:** 1202069766

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	168		14.5		134	115		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2198 **Client ID** RE11–10–1862SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 248418001 **Spike ID:** 1202069768

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	158		14.5		125	115		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE36–10–8466D

Sample ID: 248526001 **Duplicate ID:** 1202065016 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.07	0.855	J	0.953	J	10.9		MS
Beryllium	mg/kg	+/–.107	0.46		0.473		2.85		MS
Nickel	mg/kg	+/–20%	3.22		3.89		18.7		MS
Selenium	mg/kg		0.567	U	0.535	U			MS
Thallium	mg/kg		0.0681	U	0.0642	U			MS
Uranium	mg/kg	+/–20%	0.579		0.514		11.9		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE36–10–8466SD

Sample ID: 1202065017 **Duplicate ID:** 1202065024 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	9.62		8.1		17.2		MS
Beryllium	mg/kg	+/–20	5.95		4.98		17.8		MS
Nickel	mg/kg	+/–20	9.59		9.18		4.39		MS
Selenium	mg/kg	+/–20	2		1.65		19		MS
Thallium	mg/kg	+/–20	9.3		8.91		4.27		MS
Uranium	mg/kg	+/–20	5.92		5.4		9.15		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE36–10–8466D

Sample ID: 248526001 **Duplicate ID:** 1202065047 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	2210000		2590000		15.7		P
Antimony	ug/Kg		357	U	357	U			P
Barium	ug/Kg	+/–20%	37400		33100		12.1		P
Cadmium	ug/Kg		108	U	108	U			P
Calcium	ug/Kg	+/–20%	320000		476000		39.2	*	P
Chromium	ug/Kg	+/–20%	17300		13500		24.4	*	P
Cobalt	ug/Kg	+/–540	1720		1820		5.47		P
Copper	ug/Kg	+/–1080	3160		3660		14.8		P
Iron	ug/Kg	+/–20%	7510000		8350000		10.6		P
Lead	ug/Kg	+/–1080	4740		5050		6.28		P
Magnesium	ug/Kg	+/–20%	378000		426000		12.2		P
Manganese	ug/Kg	+/–20%	296000		275000		7.13		P
Potassium	ug/Kg	+/–20%	1030000		1110000		7.7		P
Silver	ug/Kg		108	U	108	U			P
Sodium	ug/Kg	+/–20%	1720000		1820000		5.45		P
Vanadium	ug/Kg	+/–20%	7270		8660		17.5		P
Zinc	ug/Kg	+/–20%	37700		40300		6.66		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE36–10–8466SD

Sample ID: 1202065048 **Duplicate ID:** 1202065050 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	9390000		4110000		78.2	*	P
Antimony	ug/Kg	+/–20	47500		51200		7.51		P
Barium	ug/Kg	+/–20	148000		86900		52.1	*	P
Cadmium	ug/Kg	+/–20	52000		55700		6.74		P
Calcium	ug/Kg	+/–20	1220000		888000		31.6	*	P
Chromium	ug/Kg	+/–20	60800		75300		21.4	*	P
Cobalt	ug/Kg	+/–20	54900		56200		2.28		P
Copper	ug/Kg	+/–20	58800		61300		4.1		P
Iron	ug/Kg	+/–20	13000000		8300000		44.4	*	P
Lead	ug/Kg	+/–20	91300		60100		41.2	*	P
Magnesium	ug/Kg	+/–20	4080000		1050000		118	*	P
Manganese	ug/Kg	+/–20	605000		319000		61.8	*	P
Potassium	ug/Kg	+/–20	4080000		1760000		79.5	*	P
Silver	ug/Kg	+/–20	51200		54100		5.58		P
Sodium	ug/Kg	+/–20	2040000		2320000		12.5		P
Vanadium	ug/Kg	+/–20	72000		62400		14.4		P
Zinc	ug/Kg	+/–20	294000		92600		104	*	P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE11–10–1862D

Sample ID: 248418001 **Duplicate ID:** 1202069765 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–12.1	14.5		15.5		6.97		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2198

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE11–10–1862SD

Sample ID: 1202069766 **Duplicate ID:** 1202069768 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	168		158		5.78		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2198

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065015								
	Arsenic	mg/kg	104	114		110	78–123	MS
	Beryllium	mg/kg	77.6	90		116	84–116	MS
	Nickel	mg/kg	134	148		110	78–123	MS
	Selenium	mg/kg	286	321		112	77–123	MS
	Thallium	mg/kg	121	141		116	78–122	MS
	Uranium	mg/kg	2.13	2.13		99.9	73–127	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2198

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065046								
	Calcium	ug/Kg	9870000	9740000		98.7	83–117	P
	Chromium	ug/Kg	236000	223000		94.5	80–120	P
	Cobalt	ug/Kg	91200	88700		97.3	81–120	P
	Copper	ug/Kg	174000	178000		102	81–118	P
	Iron	ug/Kg	18000000	18500000		103	51–149	P
	Lead	ug/Kg	86000	83400		96.9	79–121	P
	Magnesium	ug/Kg	4000000	3750000		93.6	79–122	P
	Manganese	ug/Kg	558000	530000		95	81–119	P
	Potassium	ug/Kg	4300000	4040000		94	74–127	P
	Silver	ug/Kg	30100	29900		99.5	66–134	P
	Sodium	ug/Kg	1020000	986000		96.7	74–127	P
	Vanadium	ug/Kg	115000	119000		103	79–121	P
	Zinc	ug/Kg	594000	563000		94.8	80–121	P
	Aluminum	ug/Kg	10500000	8890000		84.7	56–144	P
	Antimony	ug/Kg	173000	111000		64.1	71–130	P
	Barium	ug/Kg	198000	202000		102	80–120	P
	Cadmium	ug/Kg	60700	57300		94.4	81–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2198

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202069764								
	Mercury	ug/kg	5150	5440		106	71.6–128.3	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2198 **Client ID** RE36–10–8466L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248526001 **Serial Dilution ID:** 1202065018

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	3.77	J	5	U	100			MS
Beryllium	2.03		1.92	J	5.67			MS
Nickel	14.2		15.6		9.51			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	2.55		2.78		8.82			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2198 **Client ID** RE36-10-8466L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248526001 **Serial Dilution ID:** 1202065049

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	20400		20900		2.21		10	P
Antimony	3.3	U	16.5	U				P
Barium	345		351		1.74		10	P
Cadmium	1	U	5	U				P
Calcium	2960		2980		.676			P
Chromium	160		159		.625		10	P
Cobalt	15.9		15.8	J	.943			P
Copper	29.2		30.2	J	3.42			P
Iron	69400		70000		.865		10	P
Lead	43.8		37.8	J	13.7			P
Magnesium	3490		3560		1.86			P
Manganese	2730		2770		1.47		10	P
Potassium	9520		10200		6.62		10	P
Silver	1	U	5	U				P
Sodium	15900		16300		2.2		10	P
Vanadium	67.1		66		1.64		10	P
Zinc	348		349		.144		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2198 **Client ID** RE11–10–1862L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248418001 **Serial Dilution ID:** 1202069767

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.232		.34	U	100			AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2198 **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	962573						
1202065045	MB for batch 962573	MB	S	16–MAR–10	.509g	50mL	
1202065046	LCS for batch 962573	LCS	S	16–MAR–10	.517g	50mL	
1202065048	RE36–10–8466S	MS	S	16–MAR–10	.535g	50mL	
1202065050	RE36–10–8466SD	MSD	S	16–MAR–10	.513g	50mL	
1202065047	RE36–10–8466D	DUP	S	16–MAR–10	.528g	50mL	
248517001	RE36–10–8292	SAMPLE	S	16–MAR–10	.537g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2198 **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	962563						
1202065014	MB for batch 962563	MB	S	16–MAR–10	.502g	50mL	
1202065015	LCS for batch 962563	LCS	S	16–MAR–10	.515g	50mL	
1202065017	RE36–10–8466S	MS	S	16–MAR–10	.509g	50mL	
1202065024	RE36–10–8466SD	MSD	S	16–MAR–10	.557g	50mL	
1202065016	RE36–10–8466D	DUP	S	16–MAR–10	.533g	50mL	
248517001	RE36–10–8292	SAMPLE	S	16–MAR–10	.519g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2198 **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	964740						
1202069763	MB for batch 964740	MB	S	15-MAR-10	.529g	30mL	
1202069764	LCS for batch 964740	LCS	S	15-MAR-10	.206g	30mL	
1202069766	RE11-10-1862S	MS	S	15-MAR-10	.513g	30mL	
1202069768	RE11-10-1862SD	MSD	S	15-MAR-10	.547g	30mL	
1202069765	RE11-10-1862D	DUP	S	15-MAR-10	.565g	30mL	
248517001	RE36-10-8292	SAMPLE	S	15-MAR-10	.535g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 13–APR–10 **End Date:** 14–APR–10

Client Sdg: 10–2198
Method MS
Data File: 100413–2

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	18:56:00			X		X											X		X			X	X		
S10	1	19:00:00			X		X											X		X			X	X		
S100	1	19:04:00			X		X											X		X			X	X		
ICV01	1	19:08:00			X		X											X		X			X	X		
ICB01	1	19:12:00			X		X											X		X			X	X		
CRDL01	1	19:16:00			X		X											X		X			X	X		
ICSA01	1	19:20:00			X		X											X		X			X	X		
ICSAB01	1	19:24:00			X		X											X		X			X	X		
CCV01	1	19:28:00			X		X											X		X			X	X		
CCB01	1	19:32:00			X		X											X		X			X	X		
ZZZZZZ	2	19:37:00																								
ZZZZZZ	40	19:41:00																								
ZZZZZZ	2	19:45:00																								
ZZZZZZ	2	19:49:00																								
ZZZZZZ	2	19:53:00																								
ZZZZZZ	2	19:57:00																								
ZZZZZZ	10	20:01:00																								
ZZZZZZ	2	20:05:00																								
CCV02	1	20:09:00			X		X											X		X			X	X		
CCB02	1	20:13:00			X		X											X		X			X	X		
ZZZZZZ	2	20:17:00																								
ZZZZZZ	2	20:21:00																								
ZZZZZZ	2	20:26:00																								
ZZZZZZ	2	20:30:00																								
ZZZZZZ	2	20:34:00																								
ZZZZZZ	2	20:38:00																								
CCV03	1	20:42:00			X		X											X		X			X	X		
CCB03	1	20:46:00			X		X											X		X			X	X		
ZZZZZZ	2	20:50:00																								
ZZZZZZ	2	20:54:00																								
ZZZZZZ	2	20:58:00																								
ZZZZZZ	2	21:02:00																								
ZZZZZZ	2	21:06:00																								
ZZZZZZ	2	21:11:00																								
ZZZZZZ	2	21:15:00																								
CCV04	1	21:19:00			X		X											X		X			X	X		
CCB04	1	21:23:00			X		X											X		X			X	X		
ZZZZZZ	2	21:27:00																								
ZZZZZZ	40	21:31:00																								
ZZZZZZ	2	21:35:00																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	2	21:39:00																								
ZZZZZZ	2	21:43:00																								
ZZZZZZ	2	21:47:00																								
ZZZZZZ	10	21:51:00																								
ZZZZZZ	2	21:56:00																								
CCV05	1	22:00:00			X		X										X		X			X	X			
CCB05	1	22:04:00			X		X										X		X			X	X			
ZZZZZZ	2	22:08:00																								
ZZZZZZ	2	22:12:00																								
ZZZZZZ	2	22:16:00																								
ZZZZZZ	2	22:20:00																								
ZZZZZZ	2	22:24:00																								
ZZZZZZ	2	22:28:00																								
CCV06	1	22:33:00			X		X										X		X			X	X			
CCB06	1	22:37:00			X		X										X		X			X	X			
ZZZZZZ	2	22:41:00																								
ZZZZZZ	2	22:45:00																								
ZZZZZZ	2	22:49:00																								
ZZZZZZ	2	22:53:00																								
ZZZZZZ	2	22:57:00																								
CCV07	1	23:01:00			X		X										X		X			X	X			
CCB07	1	23:05:00			X		X										X		X			X	X			
ZZZZZZ	2	23:10:00																								
ZZZZZZ	40	23:14:00																								
ZZZZZZ	2	23:18:00																								
ZZZZZZ	2	23:22:00																								
ZZZZZZ	2	23:26:00																								
ZZZZZZ	2	23:30:00																								
ZZZZZZ	10	23:34:00																								
ZZZZZZ	2	23:38:00																								
ZZZZZZ	2	23:42:00																								
CCV08	1	23:47:00			X		X										X		X			X	X			
CCB08	1	23:51:00			X		X										X		X			X	X			
ZZZZZZ	2	23:55:00																								
ZZZZZZ	2	23:59:00																								
ZZZZZZ	2	00:03:00																								
ZZZZZZ	2	00:07:00																								
ZZZZZZ	2	00:11:00																								
ZZZZZZ	2	00:15:00																								
ZZZZZZ	2	00:20:00																								

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	2	00:24:00																								
ZZZZZZ	2	00:28:00																								
CCV09	1	00:32:00			X		X											X		X			X	X		
CCB09	1	00:36:00			X		X											X		X			X	X		
1202065014	2	00:40:00			X		X											X		X			X	X		
1202065015	40	00:44:00			X		X											X		X			X	X		
ZZZZZZ	2	00:48:00																								
ZZZZZZ	2	00:53:00																								
ZZZZZZ	2	00:57:00																								
248517001	2	01:01:00			X		X											X		X			X	X		
ZZZZZZ	2	01:05:00																								
ZZZZZZ	2	01:09:00																								
ZZZZZZ	2	01:13:00																								
CCV10	1	01:17:00			X		X											X		X			X	X		
CCB10	1	01:21:00			X		X											X		X			X	X		
ZZZZZZ	2	01:25:00																								
ZZZZZZ	2	01:29:00																								
ZZZZZZ	2	01:33:00																								
ZZZZZZ	2	01:38:00																								
ZZZZZZ	2	01:42:00																								
ZZZZZZ	2	01:46:00																								
ZZZZZZ	2	01:50:00																								
CCV11	1	01:54:00			X		X											X		X			X	X		
CCB11	1	01:58:00			X		X											X		X			X	X		
ZZZZZZ	2	02:02:00																								
ZZZZZZ	2	02:06:00																								
1202065016	2	02:10:00			X		X											X		X			X	X		
1202065017	2	02:14:00			X		X											X		X			X	X		
1202065024	2	02:18:00			X		X											X		X			X	X		
1202065018	10	02:23:00			X		X											X		X			X	X		
CCV12	1	02:27:00			X		X											X		X			X	X		
CCB12	1	02:31:00			X		X											X		X			X	X		

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 16–MAR–10 **End Date:** 16–MAR–10

Client Sdg: 10–2198
Method AV
Data File: 031610S1–3

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	09:38:00															X									
S0.2	1	09:40:00															X									
S0.5	1	09:41:00															X									
S2.0	1	09:43:00															X									
S5.0	1	09:45:00															X									
S10.0	1	09:46:00															X									
ICV01	1	09:48:00															X									
ICB01	1	09:50:00															X									
CRDL01	1	09:51:00															X									
CCV01	1	09:53:00															X									
CCB01	1	09:55:00															X									
ZZZZZZ	1	09:56:00																								
ZZZZZZ	10	09:58:00																								
ZZZZZZ	1	10:00:00																								
ZZZZZZ	1	10:01:00																								
ZZZZZZ	1	10:03:00																								
ZZZZZZ	1	10:05:00																								
CCV02	1	10:09:00															X									
CCB02	1	10:11:00															X									
ZZZZZZ	1	10:13:00																								
ZZZZZZ	1	10:14:00																								
ZZZZZZ	1	10:16:00																								
ZZZZZZ	1	10:18:00																								
ZZZZZZ	10	10:19:00																								
ZZZZZZ	1	10:21:00																								
ZZZZZZ	1	10:23:00																								
ZZZZZZ	1	10:24:00																								
ZZZZZZ	1	10:26:00																								
ZZZZZZ	5	10:28:00																								
CCV03	1	10:29:00															X									
CCB03	1	10:31:00															X									
ZZZZZZ	1	10:33:00																								
ZZZZZZ	1	10:34:00																								
ZZZZZZ	1	10:36:00																								
ZZZZZZ	1	10:38:00																								
ZZZZZZ	1	10:40:00																								
ZZZZZZ	1	10:41:00																								
ZZZZZZ	1	10:43:00																								
ZZZZZZ	1	10:45:00																								
ZZZZZZ	1	10:46:00																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:48:00																							
CCV04	1	10:50:00													X										
CCB04	1	10:51:00													X										
ZZZZZZ	1	10:53:00																							
ZZZZZZ	1	10:55:00																							
ZZZZZZ	1	10:56:00																							
ZZZZZZ	1	10:58:00																							
ZZZZZZ	1	11:00:00																							
ZZZZZZ	1	11:01:00																							
ZZZZZZ	1	11:03:00																							
ZZZZZZ	1	11:05:00																							
ZZZZZZ	1	11:06:00																							
ZZZZZZ	1	11:08:00																							
CCV05	1	11:10:00													X										
CCB05	1	11:11:00													X										
ZZZZZZ	10	11:13:00																							
ZZZZZZ	1	11:15:00																							
ZZZZZZ	1	11:16:00																							
ZZZZZZ	1	11:18:00																							
ZZZZZZ	1	11:20:00																							
ZZZZZZ	1	11:21:00																							
ZZZZZZ	1	11:23:00																							
ZZZZZZ	1	11:25:00																							
ZZZZZZ	1	11:26:00																							
ZZZZZZ	1	11:28:00																							
CCV06	1	11:30:00													X										
CCB06	1	11:31:00													X										
ZZZZZZ	1	11:33:00																							
ZZZZZZ	1	11:35:00																							
ZZZZZZ	5	11:36:00																							
ZZZZZZ	1	11:38:00																							
ZZZZZZ	1	11:40:00																							
ZZZZZZ	1	11:42:00																							
ZZZZZZ	1	11:43:00																							
ZZZZZZ	1	11:45:00																							
ZZZZZZ	1	11:47:00																							
ZZZZZZ	1	11:48:00																							
CCV07	1	11:50:00													X										
CCB07	1	11:52:00													X										
ZZZZZZ	1	11:53:00																							

Metals
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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	1	11:55:00																								
ZZZZZZ	1	11:57:00																								
ZZZZZZ	10	11:58:00																								
ZZZZZZ	1	12:00:00																								
ZZZZZZ	1	12:02:00																								
ZZZZZZ	1	12:03:00																								
ZZZZZZ	1	12:05:00																								
ZZZZZZ	1	12:07:00																								
ZZZZZZ	1	12:08:00																								
CCV08	1	12:10:00															X									
CCB08	1	12:12:00															X									
ZZZZZZ	1	12:13:00																								
ZZZZZZ	1	12:15:00																								
ZZZZZZ	1	12:17:00																								
ZZZZZZ	1	12:19:00																								
ZZZZZZ	1	12:20:00																								
ZZZZZZ	1	12:22:00																								
ZZZZZZ	1	12:24:00																								
ZZZZZZ	1	12:25:00																								
ZZZZZZ	1	12:27:00																								
ZZZZZZ	1	12:29:00																								
CCV09	1	12:30:00															X									
CCB09	1	12:32:00															X									
ZZZZZZ	1	12:34:00																								
ZZZZZZ	1	12:35:00																								
ZZZZZZ	1	12:37:00																								
ZZZZZZ	1	12:39:00																								
ZZZZZZ	1	12:40:00																								
ZZZZZZ	1	12:42:00																								
ZZZZZZ	10	12:44:00																								
ZZZZZZ	1	12:46:00																								
ZZZZZZ	1	12:47:00																								
ZZZZZZ	1	12:49:00																								
CCV10	1	12:51:00															X									
CCB10	1	12:52:00															X									
ZZZZZZ	1	12:54:00																								
ZZZZZZ	5	12:56:00																								
ZZZZZZ	1	12:57:00																								
ZZZZZZ	1	12:59:00																								
ZZZZZZ	1	13:01:00																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	13:02:00																								
ZZZZZZ	1	13:04:00																								
ZZZZZZ	1	13:06:00																								
ZZZZZZ	1	13:08:00																								
ZZZZZZ	1	13:09:00																								
CCV11	1	13:11:00														X										
CCB11	1	13:13:00														X										
ZZZZZZ	1	13:14:00																								
ZZZZZZ	1	13:16:00																								
ZZZZZZ	1	13:18:00																								
ZZZZZZ	1	13:19:00																								
ZZZZZZ	1	13:21:00																								
ZZZZZZ	1	13:23:00																								
ZZZZZZ	1	13:24:00																								
ZZZZZZ	1	13:26:00																								
ZZZZZZ	1	13:28:00																								
1202069763	1	13:30:00														X										
CCV12	1	13:31:00														X										
CCB12	1	13:33:00														X										
1202069764	10	13:35:00														X										
ZZZZZZ	1	13:36:00																								
1202069765	1	13:38:00														X										
1202069766	1	13:40:00														X										
1202069768	1	13:41:00														X										
1202069767	5	13:43:00														X										
ZZZZZZ	1	13:45:00																								
ZZZZZZ	1	13:47:00																								
ZZZZZZ	1	13:48:00																								
ZZZZZZ	1	13:50:00																								
CCV13	1	13:52:00														X										
CCB13	1	13:53:00														X										
ZZZZZZ	1	13:55:00																								
ZZZZZZ	1	13:57:00																								
ZZZZZZ	1	13:58:00																								
ZZZZZZ	1	14:00:00																								
ZZZZZZ	1	14:02:00																								
ZZZZZZ	1	14:04:00																								
ZZZZZZ	1	14:05:00																								
248517001	1	14:07:00														X										
ZZZZZZ	1	14:09:00																								

Metals
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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	1	14:10:00																								
CCV14	1	14:12:00															X									
CCB14	1	14:14:00															X									

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 30–MAR–10 **End Date:** 30–MAR–10

Client Sdg: 10–2198
Method P
Data File: 033010B–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	15:06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	15:09:00		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	15:11:00	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	15:13:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	15:15:00	X						X				X		X							X				
ICV01	1	15:16:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	15:18:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	15:21:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	15:23:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	15:25:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	15:27:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	15:29:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	15:30:00																								
ZZZZZZ	1	15:32:00																								
CCV01	1	15:38:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	15:40:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	5	15:43:00																								
ZZZZZZ	10	15:45:00																								
ZZZZZZ	10	15:47:00																								
ZZZZZZ	10	15:49:00																								
ZZZZZZ	10	15:51:00																								
CCV02	1	15:54:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	15:56:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	15:59:00																								
ZZZZZZ	1	16:02:00																								
ZZZZZZ	1	16:03:00																								
ZZZZZZ	1	16:05:00																								
ZZZZZZ	1	16:07:00																								
ZZZZZZ	1	16:09:00																								
ZZZZZZ	5	16:10:00																								
ZZZZZZ	1	16:12:00																								
CCV03	1	16:14:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	16:16:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	16:19:00																								
ZZZZZZ	1	16:22:00																								
ZZZZZZ	1	16:24:00																								
ZZZZZZ	1	16:26:00																								
ZZZZZZ	1	16:28:00																								
ZZZZZZ	1	16:29:00																								
ZZZZZZ	5	16:30:00																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
CCV04	1	16:33:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	16:35:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV05	1	16:57:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	16:59:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:02:00																								
ZZZZZZ	1	17:05:00																								
ZZZZZZ	1	17:07:00																								
ZZZZZZ	1	17:10:00																								
ZZZZZZ	1	17:13:00																								
ZZZZZZ	5	17:15:00																								
CCV06	1	17:18:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	17:21:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:23:00																								
ZZZZZZ	1	17:27:00																								
ZZZZZZ	1	17:29:00																								
ZZZZZZ	1	17:32:00																								
ZZZZZZ	1	17:35:00																								
ZZZZZZ	5	17:37:00																								
CCV07	1	17:40:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	17:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:45:00																								
ZZZZZZ	1	17:48:00																								
ZZZZZZ	1	17:51:00																								
ZZZZZZ	1	17:54:00																								
ZZZZZZ	1	17:57:00																								
CCV08	1	18:00:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	18:02:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:05:00																								
ZZZZZZ	1	18:08:00																								
ZZZZZZ	1	18:10:00																								
ZZZZZZ	1	18:13:00																								
ZZZZZZ	1	18:16:00																								
ZZZZZZ	5	18:18:00																								
CCV09	1	18:22:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	18:24:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:27:00																								
ZZZZZZ	1	18:30:00																								
ZZZZZZ	1	18:33:00																								
ZZZZZZ	1	18:35:00																								
ZZZZZZ	1	18:38:00																								

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	1	18:41:00																								
CCV10	1	18:44:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	18:46:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:49:00																								
ZZZZZZ	1	18:52:00																								
ZZZZZZ	1	18:53:00																								
ZZZZZZ	1	18:55:00																								
ZZZZZZ	1	18:57:00																								
ZZZZZZ	1	18:58:00																								
ZZZZZZ	5	19:00:00																								
CCV11	1	19:02:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	19:04:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:07:00																								
ZZZZZZ	1	19:10:00																								
ZZZZZZ	1	19:11:00																								
ZZZZZZ	1	19:13:00																								
ZZZZZZ	1	19:15:00																								
ZZZZZZ	1	19:16:00																								
ZZZZZZ	5	19:17:00																								
CCV12	1	19:19:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	19:21:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:24:00																								
ZZZZZZ	1	19:28:00																								
ZZZZZZ	1	19:29:00																								
ZZZZZZ	1	19:31:00																								
ZZZZZZ	1	19:33:00																								
ZZZZZZ	1	19:34:00																								
ZZZZZZ	5	19:35:00																								
ZZZZZZ	1	19:37:00																								
ZZZZZZ	1	19:39:00																								
ZZZZZZ	1	19:41:00																								
CCV13	1	19:43:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB13	1	19:45:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:49:00																								
ZZZZZZ	1	19:52:00																								
ZZZZZZ	1	19:53:00																								
ZZZZZZ	1	19:55:00																								
ZZZZZZ	1	19:57:00																								
ZZZZZZ	1	19:58:00																								
ZZZZZZ	5	19:59:00																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	20:02:00																								
ZZZZZZ	1	20:04:00																								
ZZZZZZ	1	20:06:00																								
CCV14	1	20:08:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB14	1	20:10:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:13:00																								
ZZZZZZ	1	20:17:00																								
ZZZZZZ	1	20:18:00																								
ZZZZZZ	1	20:20:00																								
ZZZZZZ	1	20:22:00																								
ZZZZZZ	1	20:23:00																								
ZZZZZZ	5	20:25:00																								
CCV15	1	20:27:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB15	1	20:29:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:32:00																								
ZZZZZZ	1	20:34:00																								
ZZZZZZ	1	20:36:00																								
ZZZZZZ	1	20:38:00																								
ZZZZZZ	1	20:40:00																								
ZZZZZZ	1	20:42:00																								
CCV16	1	20:44:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB16	1	20:46:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:49:00																								
ZZZZZZ	1	20:52:00																								
ZZZZZZ	1	20:54:00																								
ZZZZZZ	1	20:56:00																								
ZZZZZZ	1	20:58:00																								
ZZZZZZ	1	21:00:00																								
ZZZZZZ	5	21:02:00																								
CCV17	1	21:04:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB17	1	21:06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:09:00																								
ZZZZZZ	1	21:11:00																								
ZZZZZZ	1	21:14:00																								
ZZZZZZ	1	21:16:00																								
CCV18	1	21:18:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB18	1	21:20:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:23:00																								
ZZZZZZ	1	21:26:00																								
ZZZZZZ	1	21:27:00																								

Metals
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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	1	21:29:00																								
ZZZZZZ	1	21:31:00																								
ZZZZZZ	1	21:32:00																								
ZZZZZZ	5	21:33:00																								
ZZZZZZ	1	21:35:00																								
CCV19	1	21:37:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB19	1	21:39:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202065045	1	21:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202065046	1	21:45:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:46:00																								
1202065047	1	21:48:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202065048	1	21:50:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202065050	1	21:51:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202065049	5	21:53:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV20	1	21:55:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB20	1	21:57:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:00:00																								
ZZZZZZ	1	22:02:00																								
ZZZZZZ	1	22:04:00																								
248517001	1	22:06:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:08:00																								
ZZZZZZ	1	22:10:00																								
ZZZZZZ	1	22:12:00																								
ZZZZZZ	1	22:14:00																								
CCV21	1	22:16:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB21	1	22:18:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2198

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. 10–2198

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. 10–2198

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
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	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	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	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
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	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
Sodium	589.592	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	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198
Effective Dates: 22-MAR-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	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	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	3.47778	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	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
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
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
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
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	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	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	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	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	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	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	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	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
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
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
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
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
Sodium	589.592	0.88937	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: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	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
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
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
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	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
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	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	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
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	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2198

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
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
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

METALS
–12–
Linear Ranges

SDG NO. 10–2198

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

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

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Analysis Begun

Start Time: 3/30/2010 15:06:00 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033010.sif
Batch ID:
Results Data Set: 033010B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/30/2010 15:06:02**
Analyst: **Data Type: Original**
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 RADIAL	146497.9	146497.9	99.1	%	15:06:32
1	Al 396.153Radial†	-101.0	-101.9	[0.00]	µg/L	15:06:52
1	Ca 317.933Radial†	670.1	676.2	[0.00]	µg/L	15:06:52
1	Fe 238.204 Radial†	133.7	134.9	[0.00]	µg/L	15:06:52
1	K 766.490 Radial†	1222.4	1233.5	[0.00]	µg/L	15:06:32
1	Mg 279.077 IEC†	174.9	176.5	[0.00]	µg/L	15:06:52
1	Na 589.592 Radial†	1269.7	1281.2	[0.00]	µg/L	15:06:32
1	Sr 421.552†	-245.3	-247.6	[0.00]	µg/L	15:06:32
1	Sc 361.383	1750148.6	1750148.6	99.719	%	15:07:54
1	Y 371.029	1060907.2	1060907.2	99.705	%	15:07:54
1	Ag 328.068†	3317.5	3326.9	[0.00]	µg/L	15:07:56
1	As 188.979†	-16.5	-16.5	[0.00]	µg/L	15:08:16
1	B 249.677†	3233.9	3243.0	[0.00]	µg/L	15:08:16
1	Ba 233.527†	-160.6	-161.1	[0.00]	µg/L	15:08:16
1	Be 313.107†	-773.6	-775.8	[0.00]	µg/L	15:07:56
1	Cd 226.502†	-119.9	-120.3	[0.00]	µg/L	15:08:16
1	Co 228.616†	-167.4	-167.9	[0.00]	µg/L	15:08:16
1	Cr 267.716†	181.0	181.5	[0.00]	µg/L	15:08:16
1	Cu 324.752†	2790.1	2798.0	[0.00]	µg/L	15:07:56
1	Mn 257.610†	176.6	177.1	[0.00]	µg/L	15:08:16
1	Mo 202.031†	-36.7	-36.8	[0.00]	µg/L	15:08:16
1	Ni 231.604†	-71.2	-71.4	[0.00]	µg/L	15:08:16
1	P 214.914†	0.0	0.0	[0.00]	µg/L	15:08:16
1	Pb 220.353†	115.5	115.9	[0.00]	µg/L	15:08:16
1	S 181.975 Axial†	85.9	86.1	[0.00]	µg/L	15:08:16
1	Sb 206.836†	81.3	81.5	[0.00]	µg/L	15:08:16
1	Se 196.026†	3.3	3.3	[0.00]	µg/L	15:08:16
1	SiO2†	1748.5	1753.4	[0.00]	µg/L	15:08:16
1	Si 251.611†	853.8	856.2	[0.00]	µg/L	15:07:56
1	Sn 189.927†	-7.6	-7.7	[0.00]	µg/L	15:08:16
1	Ti 334.940†	867.0	869.5	[0.00]	µg/L	15:07:56
1	Tl 190.801†	-111.8	-112.1	[0.00]	µg/L	15:08:16
1	U 409.014†	-248.2	-248.9	[0.00]	µg/L	15:07:56
1	V 292.402†	416.2	417.4	[0.00]	µg/L	15:07:56
1	Zn 213.857†	524.3	525.8	[0.00]	µg/L	15:08:16
2	Sc RADIAL	147907.3	147907.3	100	%	15:06:55
2	Al 396.153Radial†	-34.8	-34.7	[0.00]	µg/L	15:07:15
2	Ca 317.933Radial†	694.0	693.6	[0.00]	µg/L	15:07:15
2	Fe 238.204 Radial†	148.0	147.9	[0.00]	µg/L	15:07:15
2	K 766.490 Radial†	1396.5	1395.7	[0.00]	µg/L	15:06:55
2	Mg 279.077 IEC†	152.8	152.7	[0.00]	µg/L	15:07:15
2	Na 589.592 Radial†	1149.0	1148.4	[0.00]	µg/L	15:06:55
2	Sr 421.552†	-193.4	-193.3	[0.00]	µg/L	15:06:55
2	Sc 361.383	1758204.8	1758204.8	100.18	%	15:08:19
2	Y 371.029	1066082.1	1066082.1	100.19	%	15:08:19
2	Ag 328.068†	3417.1	3411.0	[0.00]	µg/L	15:08:21
2	As 188.979†	-15.0	-15.0	[0.00]	µg/L	15:08:41

2	B 249.677†	3227.6	3221.9	[0.00]	µg/L	15:08:41
2	Ba 233.527†	-147.6	-147.4	[0.00]	µg/L	15:08:41
2	Be 313.107†	-698.8	-697.5	[0.00]	µg/L	15:08:21
2	Cd 226.502†	-114.7	-114.5	[0.00]	µg/L	15:08:41
2	Co 228.616†	-169.7	-169.4	[0.00]	µg/L	15:08:41
2	Cr 267.716†	163.9	163.6	[0.00]	µg/L	15:08:41
2	Cu 324.752†	2765.8	2760.9	[0.00]	µg/L	15:08:21
2	Mn 257.610†	183.5	183.2	[0.00]	µg/L	15:08:41
2	Mo 202.031†	-33.7	-33.6	[0.00]	µg/L	15:08:41
2	Ni 231.604†	-86.0	-85.8	[0.00]	µg/L	15:08:41
2	P 214.914†	8.3	8.3	[0.00]	µg/L	15:08:41
2	Pb 220.353†	81.9	81.8	[0.00]	µg/L	15:08:41
2	S 181.975 Axial†	81.0	80.8	[0.00]	µg/L	15:08:41
2	Sb 206.836†	78.6	78.4	[0.00]	µg/L	15:08:41
2	Se 196.026†	28.8	28.8	[0.00]	µg/L	15:08:41
2	SiO2†	1754.9	1751.8	[0.00]	µg/L	15:08:41
2	Si 251.611†	1018.7	1016.9	[0.00]	µg/L	15:08:21
2	Sn 189.927†	0.3	0.3	[0.00]	µg/L	15:08:41
2	Ti 334.940†	994.7	992.9	[0.00]	µg/L	15:08:21
2	Tl 190.801†	-109.6	-109.4	[0.00]	µg/L	15:08:41
2	U 409.014†	-263.3	-262.8	[0.00]	µg/L	15:08:21
2	V 292.402†	284.4	283.9	[0.00]	µg/L	15:08:21
2	Zn 213.857†	528.6	527.6	[0.00]	µg/L	15:08:41
3	Sc RADIAL	149084.2	149084.2	101	%	15:07:17
3	Al 396.153Radial†	-52.4	-52.0	[0.00]	µg/L	15:07:37
3	Ca 317.933Radial†	730.3	724.2	[0.00]	µg/L	15:07:37
3	Fe 238.204 Radial†	140.4	139.2	[0.00]	µg/L	15:07:37
3	K 766.490 Radial†	1320.3	1309.2	[0.00]	µg/L	15:07:17
3	Mg 279.077 IEC†	178.6	177.1	[0.00]	µg/L	15:07:37
3	Na 589.592 Radial†	1200.4	1190.3	[0.00]	µg/L	15:07:17
3	Sr 421.552†	-226.0	-224.1	[0.00]	µg/L	15:07:17
3	Sc 361.383	1756878.6	1756878.6	100.10	%	15:08:43
3	Y 371.029	1065144.1	1065144.1	100.10	%	15:08:43
3	Ag 328.068†	3607.1	3603.4	[0.00]	µg/L	15:08:45
3	As 188.979†	-21.6	-21.6	[0.00]	µg/L	15:09:05
3	B 249.677†	3229.5	3226.2	[0.00]	µg/L	15:09:05
3	Ba 233.527†	-178.2	-178.0	[0.00]	µg/L	15:09:05
3	Be 313.107†	-884.3	-883.4	[0.00]	µg/L	15:08:45
3	Cd 226.502†	-95.4	-95.3	[0.00]	µg/L	15:09:05
3	Co 228.616†	-180.2	-180.0	[0.00]	µg/L	15:09:05
3	Cr 267.716†	190.8	190.6	[0.00]	µg/L	15:09:05
3	Cu 324.752†	2810.8	2808.0	[0.00]	µg/L	15:08:45
3	Mn 257.610†	166.6	166.4	[0.00]	µg/L	15:09:05
3	Mo 202.031†	-33.9	-33.9	[0.00]	µg/L	15:09:05
3	Ni 231.604†	-76.5	-76.4	[0.00]	µg/L	15:09:05
3	P 214.914†	6.7	6.7	[0.00]	µg/L	15:09:05
3	Pb 220.353†	93.4	93.3	[0.00]	µg/L	15:09:05
3	S 181.975 Axial†	96.2	96.1	[0.00]	µg/L	15:09:05
3	Sb 206.836†	74.4	74.3	[0.00]	µg/L	15:09:05
3	Se 196.026†	8.6	8.6	[0.00]	µg/L	15:09:05
3	SiO2†	1756.0	1754.2	[0.00]	µg/L	15:09:05
3	Si 251.611†	973.9	972.9	[0.00]	µg/L	15:08:45
3	Sn 189.927†	-0.2	-0.2	[0.00]	µg/L	15:09:05
3	Ti 334.940†	795.2	794.4	[0.00]	µg/L	15:08:45
3	Tl 190.801†	-129.9	-129.8	[0.00]	µg/L	15:09:05
3	U 409.014†	-340.0	-339.6	[0.00]	µg/L	15:08:45
3	V 292.402†	228.5	228.3	[0.00]	µg/L	15:08:45
3	Zn 213.857†	520.8	520.3	[0.00]	µg/L	15:09:05

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1755077.4	4319.59	0.25%	100.00	%
Sc RADIAL	147829.8	1294.89	0.88%	100	%
Y 371.029	1064044.5	2757.13	0.26%	100.00	%
Ag 328.068†	3447.1	141.77	4.11%	[0.00]	µg/L
Al 396.153Radial†	-62.9	34.89	55.49%	[0.00]	µg/L
As 188.979†	-17.7	3.44	19.45%	[0.00]	µg/L
B 249.677†	3230.3	11.14	0.34%	[0.00]	µg/L
Ba 233.527†	-162.2	15.33	9.46%	[0.00]	µg/L

Be 313.107†	-785.6	93.33	11.88%	[0.00]	µg/L
Ca 317.933Radial†	698.0	24.30	3.48%	[0.00]	µg/L
Cd 226.502†	-110.0	13.07	11.88%	[0.00]	µg/L
Co 228.616†	-172.4	6.63	3.84%	[0.00]	µg/L
Cr 267.716†	178.6	13.74	7.69%	[0.00]	µg/L
Cu 324.752†	2788.9	24.81	0.89%	[0.00]	µg/L
Fe 238.204 Radial†	140.7	6.62	4.70%	[0.00]	µg/L
K 766.490 Radial†	1312.8	81.17	6.18%	[0.00]	µg/L
Mg 279.077 IEC†	168.8	13.89	8.23%	[0.00]	µg/L
Mn 257.610†	175.6	8.49	4.84%	[0.00]	µg/L
Mo 202.031†	-34.8	1.78	5.12%	[0.00]	µg/L
Na 589.592 Radial†	1206.6	67.93	5.63%	[0.00]	µg/L
Ni 231.604†	-77.9	7.31	9.39%	[0.00]	µg/L
P 214.914†	5.0	4.37	87.51%	[0.00]	µg/L
Pb 220.353†	97.0	17.35	17.90%	[0.00]	µg/L
S 181.975 Axial†	87.7	7.77	8.86%	[0.00]	µg/L
Sb 206.836†	78.1	3.61	4.63%	[0.00]	µg/L
Se 196.026†	13.6	13.43	99.02%	[0.00]	µg/L
SiO2†	1753.1	1.20	0.07%	[0.00]	µg/L
Si 251.611†	948.7	83.02	8.75%	[0.00]	µg/L
Sn 189.927†	-2.5	4.43	174.28%	[0.00]	µg/L
Sr 421.552†	-221.7	27.19	12.27%	[0.00]	µg/L
Ti 334.940†	885.6	100.24	11.32%	[0.00]	µg/L
Tl 190.801†	-117.1	11.10	9.48%	[0.00]	µg/L
U 409.014†	-283.8	48.88	17.23%	[0.00]	µg/L
V 292.402†	309.8	97.21	31.37%	[0.00]	µg/L
Zn 213.857†	524.6	3.82	0.73%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/30/2010 15:09:13
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	151106.4	151106.4	102	%	15:09:44
1	K 766.490 Radial†	3818.5	2422.9	[1000]	µg/L	15:09:44
1	Sr 421.552†	45253.2	44493.6	[100]	µg/L	15:09:44
1	Sc 361.383	1738037.7	1738037.7	99.029	%	15:09:52
1	Y 371.029	1049397.7	1049397.7	98.623	%	15:09:52
1	Ag 328.068†	28574.4	25407.5	[100]	µg/L	15:09:54
1	As 188.979†	268.3	288.6	[100]	µg/L	15:10:14
1	B 249.677†	9207.2	6067.1	[100]	µg/L	15:09:54
1	Ba 233.527†	22852.5	23238.7	[100]	µg/L	15:09:54
1	Be 313.107†	323892.5	327853.5	[100]	µg/L	15:09:52
1	Cd 226.502†	14574.7	14827.6	[100]	µg/L	15:09:54
1	Co 228.616†	7300.6	7544.6	[100]	µg/L	15:10:14
1	Cr 267.716†	11891.0	11829.0	[100]	µg/L	15:09:54
1	Cu 324.752†	26223.3	23691.5	[100]	µg/L	15:09:54
1	Mn 257.610†	76566.4	77141.5	[100]	µg/L	15:09:54
1	Mo 202.031†	3085.6	3150.6	[100]	µg/L	15:10:14
1	Ni 231.604†	8046.1	8202.9	[100]	µg/L	15:09:54
1	P 214.914†	2079.3	2094.7	[500]	µg/L	15:10:14
1	Pb 220.353†	1741.7	1661.8	[100]	µg/L	15:10:14
1	S 181.975 Axial†	326.5	242.0	[200]	µg/L	15:10:14
1	Sb 206.836†	832.0	762.0	[100]	µg/L	15:10:14
1	Se 196.026†	250.1	238.9	[100]	µg/L	15:10:14
1	SiO2†	11525.9	9885.8	[1069.5]	µg/L	15:09:54
1	Si 251.611†	31162.9	30519.8	[500]	µg/L	15:09:54
1	Sn 189.927†	1432.7	1449.3	[100]	µg/L	15:10:14
1	Ti 334.940†	99104.5	99190.5	[100]	µg/L	15:09:54
1	Tl 190.801†	632.9	756.2	[100]	µg/L	15:10:14
1	U 409.014†	1279.0	1575.3	[100]	µg/L	15:09:54
1	V 292.402†	18747.4	18621.3	[100]	µg/L	15:09:54
1	Zn 213.857†	16580.0	16218.0	[100]	µg/L	15:09:54
2	Sc RADIAL	151100.7	151100.7	102	%	15:09:46
2	K 766.490 Radial†	3799.4	2404.3	[1000]	µg/L	15:09:46
2	Sr 421.552†	45444.4	44682.4	[100]	µg/L	15:09:46
2	Sc 361.383	1757465.9	1757465.9	100.14	%	15:10:16
2	Y 371.029	1061598.8	1061598.8	99.770	%	15:10:16
2	Ag 328.068†	28565.6	25079.7	[100]	µg/L	15:10:18
2	As 188.979†	278.0	295.3	[100]	µg/L	15:10:38
2	B 249.677†	9241.9	5999.0	[100]	µg/L	15:10:18
2	Ba 233.527†	23009.2	23140.1	[100]	µg/L	15:10:18
2	Be 313.107†	327346.9	327687.6	[100]	µg/L	15:10:16
2	Cd 226.502†	14590.2	14680.4	[100]	µg/L	15:10:18
2	Co 228.616†	7268.8	7431.4	[100]	µg/L	15:10:38
2	Cr 267.716†	12079.9	11884.9	[100]	µg/L	15:10:18
2	Cu 324.752†	26500.5	23675.6	[100]	µg/L	15:10:18
2	Mn 257.610†	77037.2	76756.9	[100]	µg/L	15:10:18
2	Mo 202.031†	3083.7	3114.3	[100]	µg/L	15:10:38
2	Ni 231.604†	8112.2	8179.1	[100]	µg/L	15:10:18
2	P 214.914†	2063.1	2055.3	[500]	µg/L	15:10:38
2	Pb 220.353†	1736.3	1637.0	[100]	µg/L	15:10:38
2	S 181.975 Axial†	322.2	234.0	[200]	µg/L	15:10:38
2	Sb 206.836†	843.3	764.1	[100]	µg/L	15:10:38
2	Se 196.026†	260.0	246.1	[100]	µg/L	15:10:38
2	SiO2†	11608.3	9839.4	[1069.5]	µg/L	15:10:18
2	Si 251.611†	31441.9	30450.5	[500]	µg/L	15:10:18
2	Sn 189.927†	1435.4	1436.0	[100]	µg/L	15:10:38
2	Ti 334.940†	99940.5	98919.1	[100]	µg/L	15:10:18
2	Tl 190.801†	638.1	754.3	[100]	µg/L	15:10:38
2	U 409.014†	1394.8	1676.7	[100]	µg/L	15:10:18
2	V 292.402†	18757.2	18421.9	[100]	µg/L	15:10:18

2	Zn 213.857†	16630.2	16083.1	[100]	µg/L	15:10:18
3	Sc RADIAL	150595.1	150595.1	102	%	15:09:48
3	K 766.490 Radial†	3957.0	2571.5	[1000]	µg/L	15:09:48
3	Sr 421.552†	45519.0	44904.8	[100]	µg/L	15:09:48
3	Sc 361.383	1739244.5	1739244.5	99.098	%	15:10:40
3	Y 371.029	1050569.8	1050569.8	98.734	%	15:10:40
3	Ag 328.068†	28423.4	25235.1	[100]	µg/L	15:10:42
3	As 188.979†	270.5	290.7	[100]	µg/L	15:11:02
3	B 249.677†	9031.4	5883.3	[100]	µg/L	15:10:42
3	Ba 233.527†	22814.2	23184.1	[100]	µg/L	15:10:42
3	Be 313.107†	324651.0	328391.9	[100]	µg/L	15:10:40
3	Cd 226.502†	14381.3	14622.3	[100]	µg/L	15:10:42
3	Co 228.616†	7305.3	7544.2	[100]	µg/L	15:11:02
3	Cr 267.716†	11842.0	11771.3	[100]	µg/L	15:10:42
3	Cu 324.752†	26162.4	23611.6	[100]	µg/L	15:10:42
3	Mn 257.610†	76240.8	76759.2	[100]	µg/L	15:10:42
3	Mo 202.031†	3086.5	3149.4	[100]	µg/L	15:11:02
3	Ni 231.604†	7930.5	8080.6	[100]	µg/L	15:10:42
3	P 214.914†	2052.5	2066.2	[500]	µg/L	15:11:02
3	Pb 220.353†	1737.1	1655.9	[100]	µg/L	15:11:02
3	S 181.975 Axial†	322.8	238.0	[200]	µg/L	15:11:02
3	Sb 206.836†	838.9	768.4	[100]	µg/L	15:11:02
3	Se 196.026†	267.2	256.1	[100]	µg/L	15:11:02
3	SiO2†	11482.8	9834.2	[1069.5]	µg/L	15:10:42
3	Si 251.611†	31025.8	30359.6	[500]	µg/L	15:10:42
3	Sn 189.927†	1439.4	1455.1	[100]	µg/L	15:11:02
3	Ti 334.940†	98234.7	98243.4	[100]	µg/L	15:10:42
3	Tl 190.801†	640.7	763.7	[100]	µg/L	15:11:02
3	U 409.014†	1354.3	1650.4	[100]	µg/L	15:10:42
3	V 292.402†	18608.8	18468.4	[100]	µg/L	15:10:42
3	Zn 213.857†	16438.9	16064.0	[100]	µg/L	15:10:42

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1744916.0	10885.22	0.62%	99.421	%
Sc RADIAL	150934.1	293.54	0.19%	102	%
Y 371.029	1053855.4	6731.54	0.64%	99.042	%
Ag 328.068†	25240.8	163.97	0.65%	[100]	µg/L
As 188.979†	291.5	3.43	1.18%	[100]	µg/L
B 249.677†	5983.1	92.92	1.55%	[100]	µg/L
Ba 233.527†	23187.6	49.38	0.21%	[100]	µg/L
Be 313.107†	327977.7	368.24	0.11%	[100]	µg/L
Cd 226.502†	14710.1	105.82	0.72%	[100]	µg/L
Co 228.616†	7506.8	65.26	0.87%	[100]	µg/L
Cr 267.716†	11828.4	56.81	0.48%	[100]	µg/L
Cu 324.752†	23659.5	42.28	0.18%	[100]	µg/L
K 766.490 Radial†	2466.2	91.66	3.72%	[1000]	µg/L
Mn 257.610†	76885.9	221.36	0.29%	[100]	µg/L
Mo 202.031†	3138.1	20.62	0.66%	[100]	µg/L
Ni 231.604†	8154.2	64.85	0.80%	[100]	µg/L
P 214.914†	2072.0	20.35	0.98%	[500]	µg/L
Pb 220.353†	1651.6	12.97	0.79%	[100]	µg/L
S 181.975 Axial†	238.0	4.01	1.69%	[200]	µg/L
Sb 206.836†	764.9	3.26	0.43%	[100]	µg/L
Se 196.026†	247.0	8.60	3.48%	[100]	µg/L
SiO2†	9853.1	28.41	0.29%	[1069.5]	µg/L
Si 251.611†	30443.3	80.34	0.26%	[500]	µg/L
Sn 189.927†	1446.8	9.79	0.68%	[100]	µg/L
Sr 421.552†	44693.6	205.85	0.46%	[100]	µg/L
Ti 334.940†	98784.3	487.73	0.49%	[100]	µg/L
Tl 190.801†	758.0	4.95	0.65%	[100]	µg/L
U 409.014†	1634.1	52.62	3.22%	[100]	µg/L
V 292.402†	18503.9	104.35	0.56%	[100]	µg/L
Zn 213.857†	16121.7	83.92	0.52%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/30/2010 15:11:10
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	153789.5	153789.5	104	%	15:11:41
1	Al 396.153Radial†	24481.1	23595.3	[5000]	µg/L	15:11:41
1	Ca 317.933Radial†	85129.1	81132.2	[5000]	µg/L	15:11:41
1	K 766.490 Radial†	13676.3	11833.5	[5000]	µg/L	15:11:41
1	Mg 279.077 IEC†	12814.2	12148.8	[5000]	µg/L	15:11:41
1	Sr 421.552†	211787.7	203802.1	[500]	µg/L	15:11:39
1	Sc 361.383	1735951.4	1735951.4	98.910	%	15:11:54
1	Y 371.029	1040161.6	1040161.6	97.755	%	15:11:54
1	Ag 328.068†	126606.2	124554.0	[500]	µg/L	15:11:54
1	As 188.979†	1397.2	1430.3	[500]	µg/L	15:12:14
1	B 249.677†	33216.3	30351.9	[500]	µg/L	15:11:54
1	Ba 233.527†	113577.9	114991.4	[500]	µg/L	15:11:54
1	Be 313.107†	1647596.1	1666534.1	[500]	µg/L	15:11:54
1	Cd 226.502†	72100.2	73004.6	[500]	µg/L	15:11:54
1	Co 228.616†	36584.4	37159.9	[500]	µg/L	15:11:54
1	Cr 267.716†	58901.1	59371.5	[500]	µg/L	15:11:54
1	Cu 324.752†	119610.4	118139.2	[500]	µg/L	15:11:54
1	Mn 257.610†	371672.1	375591.5	[500]	µg/L	15:11:54
1	Mo 202.031†	15467.6	15672.8	[500]	µg/L	15:12:14
1	Ni 231.604†	39521.0	40034.3	[500]	µg/L	15:11:54
1	P 214.914†	10340.4	10449.3	[2500]	µg/L	15:12:14
1	Pb 220.353†	8226.2	8219.8	[500]	µg/L	15:12:14
1	S 181.975 Axial†	1292.3	1218.9	[1000]	µg/L	15:12:14
1	Sb 206.836†	3846.6	3810.9	[500]	µg/L	15:12:14
1	Se 196.026†	1241.8	1241.9	[500]	µg/L	15:12:14
1	SiO2†	50998.0	49806.7	[5347.5]	µg/L	15:11:54
1	Si 251.611†	153709.5	154454.4	[2500]	µg/L	15:11:54
1	Sn 189.927†	7149.3	7230.6	[500]	µg/L	15:12:14
1	Ti 334.940†	494470.5	499032.8	[500]	µg/L	15:11:54
1	Tl 190.801†	3575.0	3731.4	[500]	µg/L	15:12:14
1	U 409.014†	7148.3	7510.8	[500]	µg/L	15:11:54
1	V 292.402†	92825.6	93538.5	[500]	µg/L	15:11:54
1	Zn 213.857†	80524.0	80886.6	[500]	µg/L	15:11:54
2	Sc RADIAL	152865.2	152865.2	103	%	15:11:45
2	Al 396.153Radial†	24989.3	24229.1	[5000]	µg/L	15:11:45
2	Ca 317.933Radial†	86974.4	83411.5	[5000]	µg/L	15:11:45
2	K 766.490 Radial†	13984.7	12211.3	[5000]	µg/L	15:11:45
2	Mg 279.077 IEC†	12966.9	12370.9	[5000]	µg/L	15:11:45
2	Sr 421.552†	222524.3	215416.0	[500]	µg/L	15:11:43
2	Sc 361.383	1734190.5	1734190.5	98.810	%	15:12:17
2	Y 371.029	1038691.4	1038691.4	97.617	%	15:12:17
2	Ag 328.068†	126509.4	124586.0	[500]	µg/L	15:12:17
2	As 188.979†	1391.7	1426.2	[500]	µg/L	15:12:37
2	B 249.677†	33048.7	30216.4	[500]	µg/L	15:12:17
2	Ba 233.527†	113148.6	114673.5	[500]	µg/L	15:12:17
2	Be 313.107†	1642503.0	1663071.1	[500]	µg/L	15:12:17
2	Cd 226.502†	71973.8	72950.7	[500]	µg/L	15:12:17
2	Co 228.616†	36618.8	37232.2	[500]	µg/L	15:12:17
2	Cr 267.716†	58524.7	59051.0	[500]	µg/L	15:12:17
2	Cu 324.752†	119301.7	117949.6	[500]	µg/L	15:12:17
2	Mn 257.610†	370432.5	374718.5	[500]	µg/L	15:12:17
2	Mo 202.031†	15519.2	15740.9	[500]	µg/L	15:12:37
2	Ni 231.604†	39230.4	39780.8	[500]	µg/L	15:12:17
2	P 214.914†	10372.7	10492.7	[2500]	µg/L	15:12:37
2	Pb 220.353†	8220.3	8222.3	[500]	µg/L	15:12:37
2	S 181.975 Axial†	1292.2	1220.1	[1000]	µg/L	15:12:37
2	Sb 206.836†	3819.7	3787.6	[500]	µg/L	15:12:37
2	Se 196.026†	1255.4	1257.0	[500]	µg/L	15:12:37
2	SiO2†	51109.7	49972.2	[5347.5]	µg/L	15:12:17

2	Si 251.611†	153212.5	154109.2	[2500]	µg/L	15:12:17
2	Sn 189.927†	7129.5	7217.9	[500]	µg/L	15:12:37
2	Ti 334.940†	493094.1	498147.4	[500]	µg/L	15:12:17
2	Tl 190.801†	3556.4	3716.3	[500]	µg/L	15:12:37
2	U 409.014†	6944.1	7311.5	[500]	µg/L	15:12:17
2	V 292.402†	92554.7	93359.6	[500]	µg/L	15:12:17
2	Zn 213.857†	80255.8	80697.8	[500]	µg/L	15:12:17
3	Sc RADIAL	149863.4	149863.4	101	%	15:11:49
3	Al 396.153Radial†	24669.1	24397.3	[5000]	µg/L	15:11:49
3	Ca 317.933Radial†	85030.9	83179.1	[5000]	µg/L	15:11:49
3	K 766.490 Radial†	13600.3	12103.0	[5000]	µg/L	15:11:49
3	Mg 279.077 IEC†	12711.9	12370.7	[5000]	µg/L	15:11:49
3	Sr 421.552†	221546.3	218761.8	[500]	µg/L	15:11:47
3	Sc 361.383	1723472.7	1723472.7	98.199	%	15:12:40
3	Y 371.029	1032864.9	1032864.9	97.070	%	15:12:40
3	Ag 328.068†	125972.8	124835.8	[500]	µg/L	15:12:40
3	As 188.979†	1399.9	1443.2	[500]	µg/L	15:13:00
3	B 249.677†	33059.7	30435.6	[500]	µg/L	15:12:40
3	Ba 233.527†	112125.9	114344.2	[500]	µg/L	15:12:40
3	Be 313.107†	1630400.6	1661084.1	[500]	µg/L	15:12:40
3	Cd 226.502†	71306.5	72724.1	[500]	µg/L	15:12:40
3	Co 228.616†	36272.9	37110.5	[500]	µg/L	15:12:40
3	Cr 267.716†	58285.2	59175.5	[500]	µg/L	15:12:40
3	Cu 324.752†	118561.9	117947.1	[500]	µg/L	15:12:40
3	Mn 257.610†	367562.2	374126.9	[500]	µg/L	15:12:40
3	Mo 202.031†	15553.6	15873.5	[500]	µg/L	15:13:00
3	Ni 231.604†	38922.1	39713.7	[500]	µg/L	15:12:40
3	P 214.914†	10377.3	10562.6	[2500]	µg/L	15:13:00
3	Pb 220.353†	8241.3	8295.5	[500]	µg/L	15:13:00
3	S 181.975 Axial†	1295.0	1231.1	[1000]	µg/L	15:13:00
3	Sb 206.836†	3839.0	3831.3	[500]	µg/L	15:13:00
3	Se 196.026†	1246.3	1255.5	[500]	µg/L	15:13:00
3	SiO2†	50697.4	49873.9	[5347.5]	µg/L	15:12:40
3	Si 251.611†	152190.0	154032.2	[2500]	µg/L	15:12:40
3	Sn 189.927†	7135.8	7269.2	[500]	µg/L	15:13:00
3	Ti 334.940†	489890.4	497988.3	[500]	µg/L	15:12:40
3	Tl 190.801†	3591.9	3774.8	[500]	µg/L	15:13:00
3	U 409.014†	7340.9	7759.3	[500]	µg/L	15:12:40
3	V 292.402†	91865.1	93239.8	[500]	µg/L	15:12:40
3	Zn 213.857†	79572.2	80506.8	[500]	µg/L	15:12:40

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1731204.9	6753.87	0.39%	98.640	%
Sc RADIAL	152172.7	2052.66	1.35%	103	%
Y 371.029	1037239.3	3858.99	0.37%	97.481	%
Ag 328.068†	124658.6	154.27	0.12%	[500]	µg/L
Al 396.153Radial†	24073.9	422.90	1.76%	[5000]	µg/L
As 188.979†	1433.2	8.90	0.62%	[500]	µg/L
B 249.677†	30334.6	110.59	0.36%	[500]	µg/L
Ba 233.527†	114669.7	323.62	0.28%	[500]	µg/L
Be 313.107†	1663563.1	2758.14	0.17%	[500]	µg/L
Ca 317.933Radial†	82574.3	1254.28	1.52%	[5000]	µg/L
Cd 226.502†	72893.1	148.83	0.20%	[500]	µg/L
Co 228.616†	37167.5	61.23	0.16%	[500]	µg/L
Cr 267.716†	59199.3	161.54	0.27%	[500]	µg/L
Cu 324.752†	118012.0	110.23	0.09%	[500]	µg/L
K 766.490 Radial†	12049.3	194.52	1.61%	[5000]	µg/L
Mg 279.077 IEC†	12296.8	128.17	1.04%	[5000]	µg/L
Mn 257.610†	374812.3	736.78	0.20%	[500]	µg/L
Mo 202.031†	15762.4	102.07	0.65%	[500]	µg/L
Ni 231.604†	39842.9	169.11	0.42%	[500]	µg/L
P 214.914†	10501.5	57.19	0.54%	[2500]	µg/L
Pb 220.353†	8245.9	42.98	0.52%	[500]	µg/L
S 181.975 Axial†	1223.3	6.71	0.55%	[1000]	µg/L
Sb 206.836†	3809.9	21.86	0.57%	[500]	µg/L
Se 196.026†	1251.5	8.34	0.67%	[500]	µg/L
SiO2†	49884.3	83.19	0.17%	[5347.5]	µg/L
Si 251.611†	154198.6	224.84	0.15%	[2500]	µg/L

Sn 189.927†	7239.2	26.70	0.37%	[500] µg/L
Sr 421.552†	212660.0	7851.46	3.69%	[500] µg/L
Ti 334.940†	498389.5	562.78	0.11%	[500] µg/L
Tl 190.801†	3740.9	30.37	0.81%	[500] µg/L
U 409.014†	7527.2	224.34	2.98%	[500] µg/L
V 292.402†	93379.3	150.30	0.16%	[500] µg/L
Zn 213.857†	80697.1	189.88	0.24%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/30/2010 15:13:09
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	151479.9	151479.9	102	%	15:13:40
1	Al 396.153Radial†	50248.0	49100.2	[10000]	µg/L	15:13:40
1	Ca 317.933Radial†	172576.6	167720.3	[10000]	µg/L	15:13:40
1	Fe 238.204 Radial†	152851.3	149027.6	[10000]	µg/L	15:13:40
1	K 766.490 Radial†	26338.9	24391.4	[10000]	µg/L	15:13:40
1	Mg 279.077 IEC†	25844.4	25052.9	[10000]	µg/L	15:13:40
1	Na 589.592 Radial†	68427.5	65572.1	[10000]	µg/L	15:13:40
1	Sr 421.552†	443569.3	433102.8	[1000]	µg/L	15:13:38
1	Sc 361.383	1755665.6	1755665.6	100.03	%	15:13:53
1	Y 371.029	1044873.8	1044873.8	98.198	%	15:13:53
1	Ag 328.068†	252438.6	248906.9	[1000]	µg/L	15:13:55
1	As 188.979†	2841.7	2858.5	[1000]	µg/L	15:14:15
1	B 249.677†	63707.1	60455.4	[1000]	µg/L	15:13:55
1	Ba 233.527†	226640.1	226726.3	[1000]	µg/L	15:13:55
1	Be 313.107†	3325212.5	3324883.9	[1000]	µg/L	15:13:53
1	Cd 226.502†	143542.8	143604.7	[1000]	µg/L	15:13:55
1	Co 228.616†	72617.2	72765.3	[1000]	µg/L	15:13:55
1	Cr 267.716†	117324.3	117106.4	[1000]	µg/L	15:13:55
1	Cu 324.752†	237494.2	234625.7	[1000]	µg/L	15:13:55
1	Mn 257.610†	738395.3	737972.3	[1000]	µg/L	15:13:55
1	Mo 202.031†	31197.3	31221.6	[1000]	µg/L	15:14:15
1	Ni 231.604†	78391.2	78442.8	[1000]	µg/L	15:13:55
1	P 214.914†	20837.0	20825.0	[5000]	µg/L	15:14:15
1	Pb 220.353†	16272.4	16170.0	[1000]	µg/L	15:14:15
1	S 181.975 Axial†	2513.2	2424.7	[2000]	µg/L	15:14:15
1	Sb 206.836†	7651.2	7570.5	[1000]	µg/L	15:14:15
1	Se 196.026†	2493.0	2478.6	[1000]	µg/L	15:14:15
1	SiO2†	100259.4	98472.6	[10695]	µg/L	15:13:55
1	Si 251.611†	305887.8	304836.7	[5000]	µg/L	15:13:55
1	Sn 189.927†	14332.6	14330.3	[1000]	µg/L	15:14:15
1	Ti 334.940†	997065.9	995846.2	[1000]	µg/L	15:13:53
1	Tl 190.801†	7268.8	7383.5	[1000]	µg/L	15:14:15
1	U 409.014†	15767.1	16045.6	[1000]	µg/L	15:13:55
1	V 292.402†	186730.1	186357.7	[1000]	µg/L	15:13:55
1	Zn 213.857†	159431.2	158853.3	[1000]	µg/L	15:13:55
2	Sc RADIAL	151260.0	151260.0	102	%	15:13:44
2	Al 396.153Radial†	50210.8	49135.1	[10000]	µg/L	15:13:44
2	Ca 317.933Radial†	171845.0	167250.0	[10000]	µg/L	15:13:44
2	Fe 238.204 Radial†	152123.6	148533.1	[10000]	µg/L	15:13:44
2	K 766.490 Radial†	26188.8	24282.1	[10000]	µg/L	15:13:44
2	Mg 279.077 IEC†	25703.0	24951.3	[10000]	µg/L	15:13:44
2	Na 589.592 Radial†	67914.1	65167.3	[10000]	µg/L	15:13:44
2	Sr 421.552†	445909.8	436019.5	[1000]	µg/L	15:13:42
2	Sc 361.383	1749606.7	1749606.7	99.688	%	15:14:18
2	Y 371.029	1042280.4	1042280.4	97.955	%	15:14:18
2	Ag 328.068†	254491.0	251839.7	[1000]	µg/L	15:14:20
2	As 188.979†	2842.0	2868.6	[1000]	µg/L	15:14:40
2	B 249.677†	64704.3	61676.3	[1000]	µg/L	15:14:20
2	Ba 233.527†	228264.2	229140.1	[1000]	µg/L	15:14:20
2	Be 313.107†	3335523.1	3346738.2	[1000]	µg/L	15:14:18
2	Cd 226.502†	144794.1	145356.9	[1000]	µg/L	15:14:20
2	Co 228.616†	73330.2	73732.0	[1000]	µg/L	15:14:20
2	Cr 267.716†	118422.9	118614.6	[1000]	µg/L	15:14:20
2	Cu 324.752†	239130.0	237088.8	[1000]	µg/L	15:14:20
2	Mn 257.610†	744297.2	746448.9	[1000]	µg/L	15:14:20
2	Mo 202.031†	31343.1	31475.9	[1000]	µg/L	15:14:40
2	Ni 231.604†	78921.8	79246.4	[1000]	µg/L	15:14:20
2	P 214.914†	20931.4	20991.9	[5000]	µg/L	15:14:40
2	Pb 220.353†	16369.7	16323.9	[1000]	µg/L	15:14:40

2	S 181.975 Axial†	2522.0	2442.1	[2000]	µg/L	15:14:40
2	Sb 206.836†	7703.7	7649.7	[1000]	µg/L	15:14:40
2	Se 196.026†	2507.4	2501.6	[1000]	µg/L	15:14:40
2	SiO2†	101466.2	100030.3	[10695]	µg/L	15:14:20
2	Si 251.611†	308702.3	308718.9	[5000]	µg/L	15:14:20
2	Sn 189.927†	14433.4	14481.1	[1000]	µg/L	15:14:40
2	Ti 334.940†	998815.3	1001052.9	[1000]	µg/L	15:14:18
2	Tl 190.801†	7296.7	7436.6	[1000]	µg/L	15:14:40
2	U 409.014†	15818.7	16151.9	[1000]	µg/L	15:14:20
2	V 292.402†	188107.1	188385.4	[1000]	µg/L	15:14:20
2	Zn 213.857†	161016.2	160995.1	[1000]	µg/L	15:14:20
3	Sc RADIAL	151014.0	151014.0	102	%	15:13:48
3	Al 396.153Radial†	50198.3	49202.7	[10000]	µg/L	15:13:48
3	Ca 317.933Radial†	171941.8	167618.5	[10000]	µg/L	15:13:48
3	Fe 238.204 Radial†	152128.1	148779.8	[10000]	µg/L	15:13:48
3	K 766.490 Radial†	26223.9	24358.2	[10000]	µg/L	15:13:48
3	Mg 279.077 IEC†	25716.3	25005.2	[10000]	µg/L	15:13:48
3	Na 589.592 Radial†	67843.5	65206.4	[10000]	µg/L	15:13:48
3	Sr 421.552†	446265.2	437077.4	[1000]	µg/L	15:13:46
3	Sc 361.383	1732533.9	1732533.9	98.716	%	15:14:42
3	Y 371.029	1032118.8	1032118.8	97.000	%	15:14:42
3	Ag 328.068†	255803.1	255684.5	[1000]	µg/L	15:14:45
3	As 188.979†	2815.4	2869.7	[1000]	µg/L	15:15:05
3	B 249.677†	64798.9	62411.8	[1000]	µg/L	15:14:45
3	Ba 233.527†	230158.6	233315.5	[1000]	µg/L	15:14:45
3	Be 313.107†	3286563.4	3330113.2	[1000]	µg/L	15:14:42
3	Cd 226.502†	145823.0	147830.4	[1000]	µg/L	15:14:45
3	Co 228.616†	73882.3	75016.1	[1000]	µg/L	15:14:45
3	Cr 267.716†	119164.2	120536.2	[1000]	µg/L	15:14:45
3	Cu 324.752†	240884.9	241230.3	[1000]	µg/L	15:14:45
3	Mn 257.610†	748765.6	758332.8	[1000]	µg/L	15:14:45
3	Mo 202.031†	31112.5	31552.1	[1000]	µg/L	15:15:05
3	Ni 231.604†	79518.6	80631.2	[1000]	µg/L	15:14:45
3	P 214.914†	20780.9	21046.3	[5000]	µg/L	15:15:05
3	Pb 220.353†	16271.0	16385.8	[1000]	µg/L	15:15:05
3	S 181.975 Axial†	2504.4	2449.3	[2000]	µg/L	15:15:05
3	Sb 206.836†	7642.3	7663.6	[1000]	µg/L	15:15:05
3	Se 196.026†	2492.7	2511.6	[1000]	µg/L	15:15:05
3	SiO2†	102016.4	101590.7	[10695]	µg/L	15:14:45
3	Si 251.611†	310581.1	313673.7	[5000]	µg/L	15:14:45
3	Sn 189.927†	14306.7	14495.4	[1000]	µg/L	15:15:05
3	Ti 334.940†	986990.6	998947.6	[1000]	µg/L	15:14:42
3	Tl 190.801†	7254.3	7465.7	[1000]	µg/L	15:15:05
3	U 409.014†	15880.8	16371.2	[1000]	µg/L	15:14:45
3	V 292.402†	189443.3	191598.5	[1000]	µg/L	15:14:45
3	Zn 213.857†	162084.4	163668.8	[1000]	µg/L	15:14:45

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1745935.4	11994.92	0.69%	99.479	%
Sc RADIAL	151251.3	233.07	0.15%	102	%
Y 371.029	1039757.6	6741.31	0.65%	97.717	%
Ag 328.068†	252143.7	3399.00	1.35%	[1000]	µg/L
Al 396.153Radial†	49146.0	52.14	0.11%	[10000]	µg/L
As 188.979†	2865.6	6.19	0.22%	[1000]	µg/L
B 249.677†	61514.5	988.13	1.61%	[1000]	µg/L
Ba 233.527†	229727.3	3333.66	1.45%	[1000]	µg/L
Be 313.107†	3333911.8	11411.59	0.34%	[1000]	µg/L
Ca 317.933Radial†	167529.6	247.39	0.15%	[10000]	µg/L
Cd 226.502†	145597.3	2123.07	1.46%	[1000]	µg/L
Co 228.616†	73837.8	1129.09	1.53%	[1000]	µg/L
Cr 267.716†	118752.4	1719.04	1.45%	[1000]	µg/L
Cu 324.752†	237648.3	3337.68	1.40%	[1000]	µg/L
Fe 238.204 Radial†	148780.2	247.21	0.17%	[10000]	µg/L
K 766.490 Radial†	24343.9	56.06	0.23%	[10000]	µg/L
Mg 279.077 IEC†	25003.1	50.81	0.20%	[10000]	µg/L
Mn 257.610†	747584.7	10227.64	1.37%	[1000]	µg/L
Mo 202.031†	31416.5	173.06	0.55%	[1000]	µg/L
Na 589.592 Radial†	65315.3	223.25	0.34%	[10000]	µg/L

Ni 231.604†	79440.2	1106.98	1.39%	[1000]	µg/L
P 214.914†	20954.4	115.28	0.55%	[5000]	µg/L
Pb 220.353†	16293.2	111.12	0.68%	[1000]	µg/L
S 181.975 Axial†	2438.7	12.65	0.52%	[2000]	µg/L
Sb 206.836†	7628.0	50.21	0.66%	[1000]	µg/L
Se 196.026†	2497.3	16.89	0.68%	[1000]	µg/L
SiO2†	100031.2	1559.01	1.56%	[10695]	µg/L
Si 251.611†	309076.4	4429.34	1.43%	[5000]	µg/L
Sn 189.927†	14435.6	91.46	0.63%	[1000]	µg/L
Sr 421.552†	435399.9	2058.45	0.47%	[1000]	µg/L
Ti 334.940†	998615.5	2619.17	0.26%	[1000]	µg/L
Tl 190.801†	7428.6	41.70	0.56%	[1000]	µg/L
U 409.014†	16189.6	166.03	1.03%	[1000]	µg/L
V 292.402†	188780.5	2642.62	1.40%	[1000]	µg/L
Zn 213.857†	161172.4	2412.67	1.50%	[1000]	µg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S10 **Date Collected: 3/30/2010 15:15:12**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	147370.9	147370.9	99.7	%	15:15:41
1	Al 396.153Radial†	240906.1	241719.3	[50000]	µg/L	15:15:41
1	Ca 317.933Radial†	827273.1	829151.6	[50000]	µg/L	15:15:41
1	Fe 238.204 Radial†	295786.6	296567.1	[20000]	µg/L	15:15:41
1	Mg 279.077 IEC†	121547.2	121756.9	[50000]	µg/L	15:15:41
1	Na 589.592 Radial†	132367.2	131572.8	[20000]	µg/L	15:15:41
1	Sc 361.383	1684238.1	1684238.1	95.964	%	15:16:04
1	Y 371.029	1003912.2	1003912.2	94.349	%	15:16:04
2	Sc RADIAL	146863.2	146863.2	99.3	%	15:15:43
2	Al 396.153Radial†	241723.2	243377.1	[50000]	µg/L	15:15:43
2	Ca 317.933Radial†	829762.2	834525.6	[50000]	µg/L	15:15:43
2	Fe 238.204 Radial†	296606.6	298418.2	[20000]	µg/L	15:15:43
2	Mg 279.077 IEC†	121675.8	122307.8	[50000]	µg/L	15:15:43
2	Na 589.592 Radial†	132905.7	132573.9	[20000]	µg/L	15:15:43
2	Sc 361.383	1671225.1	1671225.1	95.222	%	15:16:06
2	Y 371.029	995871.7	995871.7	93.593	%	15:16:06
3	Sc RADIAL	146034.8	146034.8	98.8	%	15:15:45
3	Al 396.153Radial†	239485.6	242492.1	[50000]	µg/L	15:15:45
3	Ca 317.933Radial†	819348.2	828721.4	[50000]	µg/L	15:15:45
3	Fe 238.204 Radial†	292983.7	296444.2	[20000]	µg/L	15:15:45
3	Mg 279.077 IEC†	119881.9	121186.7	[50000]	µg/L	15:15:45
3	Na 589.592 Radial†	131389.7	131798.1	[20000]	µg/L	15:15:45
3	Sc 361.383	1683479.0	1683479.0	95.921	%	15:16:09
3	Y 371.029	1003957.3	1003957.3	94.353	%	15:16:09

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1679647.4	7303.80	0.43%	95.702	%
Sc RADIAL	146756.3	674.41	0.46%	99.3	%
Y 371.029	1001247.1	4655.29	0.46%	94.098	%
Al 396.153Radial†	242529.5	829.53	0.34%	[50000]	µg/L
Ca 317.933Radial†	830799.6	3234.04	0.39%	[50000]	µg/L
Fe 238.204 Radial†	297143.2	1105.88	0.37%	[20000]	µg/L
Mg 279.077 IEC†	121750.5	560.60	0.46%	[50000]	µg/L
Na 589.592 Radial†	131981.6	525.16	0.40%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	251.6	0.00000	0.999990	
Al 396.153Radial	3	Lin Thru 0	0.0	4.853	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	2.866	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	61.33	0.00000	0.999983	
Ba 233.527	3	Lin Thru 0	0.0	229.7	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	3332	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	16.62	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	145.6	0.00000	0.999999	
Co 228.616	3	Lin Thru 0	0.0	73.95	0.00000	0.999995	
Cr 267.716	3	Lin Thru 0	0.0	118.7	0.00000	0.999999	
Cu 324.752	3	Lin Thru 0	0.0	237.3	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	14.86	0.00000	1.000000	
K 766.490 Radial	3	Lin Thru 0	0.0	2.430	0.00000	0.999991	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.438	0.00000	0.999986	
Mn 257.610	3	Lin Thru 0	0.0	748.2	0.00000	0.999996	
Mo 202.031	3	Lin Thru 0	0.0	31.44	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.586	0.00000	0.999992	

Ni 231.604	3	Lin Thru 0	0.0	79.51	0.00000	0.999997
P 214.914	3	Lin Thru 0	0.0	4.192	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	16.33	0.00000	0.999988
S 181.975 Axial	3	Lin Thru 0	0.0	1.220	0.00000	0.999997
Sb 206.836	3	Lin Thru 0	0.0	7.627	0.00000	1.000000
Se 196.026	3	Lin Thru 0	0.0	2.498	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	9.347	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	61.78	0.00000	0.999999
Sn 189.927	3	Lin Thru 0	0.0	14.44	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	433.5	0.00000	0.999953
Ti 334.940	3	Lin Thru 0	0.0	998.2	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.440	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	15.97	0.00000	0.999597
V 292.402	3	Lin Thru 0	0.0	188.3	0.00000	0.999990
Zn 213.857	3	Lin Thru 0	0.0	161.2	0.00000	1.000000

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/30/2010 15:16:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149158.9	149158.9	101	%			15:16:49
1	Al 396.153Radial†	25831.6	25664.3	5263.3	µg/L	5263.3	ppb	15:16:49
1	Ca 317.933Radial†	87376.8	85900.3	5168.4	µg/L	5168.4	ppb	15:16:49
1	Fe 238.204 Radial†	77792.8	76958.9	5178.5	µg/L	5178.5	ppb	15:16:49
1	K 766.490 Radial†	7770.6	6388.5	2626.3	µg/L	2626.3	ppb	15:16:49
1	Mg 279.077 IEC†	13533.9	13244.5	5442.1	µg/L	5442.1	ppb	15:16:49
1	Na 589.592 Radial†	18509.1	17137.5	2599.9	µg/L	2599.9	ppb	15:16:49
1	Sr 421.552†	239535.7	237623.0	548.12	µg/L	548.12	ppb	15:16:47
1	Sc 361.383	1733695.8	1733695.8	98.782	%			15:17:16
1	Y 371.029	1040751.9	1040751.9	97.811	%			15:17:16
1	Ag 328.068†	68135.2	65528.4	266.96	µg/L	266.96	ppb	15:17:16
1	As 188.979†	1329.3	1363.4	483.14	µg/L	483.14	ppb	15:17:36
1	B 249.677†	34869.6	32069.3	521.06	µg/L	521.06	ppb	15:17:16
1	Ba 233.527†	117588.5	119200.9	519.45	µg/L	519.45	ppb	15:17:16
1	Be 313.107†	875829.6	887416.8	266.46	µg/L	266.46	ppb	15:17:16
1	Cd 226.502†	73213.2	74226.2	509.34	µg/L	509.34	ppb	15:17:16
1	Co 228.616†	37882.5	38522.2	521.28	µg/L	521.28	ppb	15:17:16
1	Cr 267.716†	58712.5	59258.0	499.17	µg/L	499.17	ppb	15:17:16
1	Cu 324.752†	124786.7	123536.7	522.16	µg/L	522.16	ppb	15:17:16
1	Mn 257.610†	389862.8	394495.4	527.06	µg/L	527.06	ppb	15:17:16
1	Mo 202.031†	16938.7	17182.4	547.03	µg/L	547.03	ppb	15:17:36
1	Ni 231.604†	40201.0	40774.7	512.85	µg/L	512.85	ppb	15:17:16
1	P 214.914†	10575.5	10701.0	2543.4	µg/L	2543.4	ppb	15:17:36
1	Pb 220.353†	8363.7	8369.8	514.21	µg/L	514.21	ppb	15:17:36
1	S 181.975 Axial†	3115.2	3066.0	2517.9	µg/L	2517.9	ppb	15:17:36
1	Sb 206.836†	3912.6	3882.7	511.03	µg/L	511.03	ppb	15:17:36
1	Se 196.026†	6300.9	6365.0	2550	µg/L	2550	ppb	15:17:36
1	SiO2†	99885.1	99363.8	10607	µg/L	10607	ppb	15:17:16
1	Si 251.611†	304452.4	307258.6	4962.5	µg/L	4962.5	ppb	15:17:16
1	Sn 189.927†	7790.2	7888.8	547.86	µg/L	547.86	ppb	15:17:36
1	Ti 334.940†	499727.2	505004.7	505.26	µg/L	505.26	ppb	15:17:16
1	Tl 190.801†	3892.3	4057.4	552.96	µg/L	552.96	ppb	15:17:36
1	U 409.014†	7143.0	7514.9	502.35	µg/L	502.35	ppb	15:17:16
1	V 292.402†	96557.1	97438.1	524.43	µg/L	524.43	ppb	15:17:16
1	Zn 213.857†	83773.2	84281.8	518.68	µg/L	518.68	ppb	15:17:16
2	Sc RADIAL	150464.5	150464.5	102	%			15:16:53
2	Al 396.153Radial†	26338.4	25940.0	5320.0	µg/L	5320.0	ppb	15:16:53
2	Ca 317.933Radial†	88167.1	85925.3	5169.9	µg/L	5169.9	ppb	15:16:53
2	Fe 238.204 Radial†	78818.8	77298.0	5201.3	µg/L	5201.3	ppb	15:16:53
2	K 766.490 Radial†	7643.7	6197.1	2547.5	µg/L	2547.5	ppb	15:16:53
2	Mg 279.077 IEC†	13736.8	13327.5	5476.1	µg/L	5476.1	ppb	15:16:53
2	Na 589.592 Radial†	18678.7	17145.0	2601.2	µg/L	2601.2	ppb	15:16:53
2	Sr 421.552†	239844.1	235866.0	544.07	µg/L	544.07	ppb	15:16:51
2	Sc 361.383	1726627.6	1726627.6	98.379	%			15:17:39
2	Y 371.029	1036918.0	1036918.0	97.451	%			15:17:39
2	Ag 328.068†	67812.3	65482.6	266.77	µg/L	266.77	ppb	15:17:39
2	As 188.979†	1343.8	1383.7	490.23	µg/L	490.23	ppb	15:17:59
2	B 249.677†	34859.4	32203.4	523.24	µg/L	523.24	ppb	15:17:39
2	Ba 233.527†	117491.5	119589.6	521.15	µg/L	521.15	ppb	15:17:39
2	Be 313.107†	873409.7	888586.5	266.81	µg/L	266.81	ppb	15:17:39
2	Cd 226.502†	73073.6	74387.6	510.44	µg/L	510.44	ppb	15:17:39
2	Co 228.616†	37714.1	38508.0	521.09	µg/L	521.09	ppb	15:17:39
2	Cr 267.716†	58529.2	59315.0	499.66	µg/L	499.66	ppb	15:17:39
2	Cu 324.752†	124562.2	123825.7	523.38	µg/L	523.38	ppb	15:17:39
2	Mn 257.610†	389247.0	395485.0	528.38	µg/L	528.38	ppb	15:17:39
2	Mo 202.031†	16924.2	17237.8	548.80	µg/L	548.80	ppb	15:17:59
2	Ni 231.604†	40215.9	40956.5	515.14	µg/L	515.14	ppb	15:17:39
2	P 214.914†	10595.6	10765.2	2558.7	µg/L	2558.7	ppb	15:17:59
2	Pb 220.353†	8379.7	8420.8	517.34	µg/L	517.34	ppb	15:17:59

2	S 181.975 Axial†	3127.7	3091.5	2538.8 µg/L	2538.8 ppb	15:17:59
2	Sb 206.836†	3893.4	3879.5	510.62 µg/L	510.62 ppb	15:17:59
2	Se 196.026†	6305.0	6395.3	2560 µg/L	2560 ppb	15:17:59
2	SiO2†	99950.6	99844.4	10658 µg/L	10658 ppb	15:17:39
2	Si 251.611†	303842.4	307900.2	4972.8 µg/L	4972.8 ppb	15:17:39
2	Sn 189.927†	7799.1	7930.2	550.73 µg/L	550.73 ppb	15:17:59
2	Ti 334.940†	499097.0	506435.1	506.70 µg/L	506.70 ppb	15:17:39
2	Tl 190.801†	3884.6	4065.7	554.09 µg/L	554.09 ppb	15:17:59
2	U 409.014†	7044.9	7444.7	497.98 µg/L	497.98 ppb	15:17:39
2	V 292.402†	96220.1	97495.7	524.75 µg/L	524.75 ppb	15:17:39
2	Zn 213.857†	83633.8	84487.3	519.94 µg/L	519.94 ppb	15:17:39
3	Sc RADIAL	148694.2	148694.2	101 %		15:16:57
3	Al 396.153Radial†	25757.3	25670.4	5264.3 µg/L	5264.3 ppb	15:16:57
3	Ca 317.933Radial†	86641.6	85440.0	5140.7 µg/L	5140.7 ppb	15:16:57
3	Fe 238.204 Radial†	77077.3	76488.6	5146.8 µg/L	5146.8 ppb	15:16:57
3	K 766.490 Radial†	7760.1	6402.2	2631.9 µg/L	2631.9 ppb	15:16:57
3	Mg 279.077 IEC†	13465.4	13218.4	5431.5 µg/L	5431.5 ppb	15:16:57
3	Na 589.592 Radial†	18458.7	17144.8	2601.0 µg/L	2601.0 ppb	15:16:57
3	Sr 421.552†	238015.5	236853.6	546.35 µg/L	546.35 ppb	15:16:55
3	Sc 361.383	1717483.0	1717483.0	97.858 %		15:18:02
3	Y 371.029	1031891.3	1031891.3	96.978 %		15:18:02
3	Ag 328.068†	67510.7	65541.4	267.02 µg/L	267.02 ppb	15:18:02
3	As 188.979†	1346.0	1393.2	493.54 µg/L	493.54 ppb	15:18:22
3	B 249.677†	34582.2	32108.8	521.70 µg/L	521.70 ppb	15:18:02
3	Ba 233.527†	116478.8	119190.5	519.41 µg/L	519.41 ppb	15:18:02
3	Be 313.107†	866925.4	886687.4	266.25 µg/L	266.25 ppb	15:18:02
3	Cd 226.502†	72305.6	73998.3	507.78 µg/L	507.78 ppb	15:18:02
3	Co 228.616†	37543.9	38538.1	521.50 µg/L	521.50 ppb	15:18:02
3	Cr 267.716†	58047.4	59139.5	498.16 µg/L	498.16 ppb	15:18:02
3	Cu 324.752†	123812.4	123733.6	522.99 µg/L	522.99 ppb	15:18:02
3	Mn 257.610†	386013.5	394287.5	526.78 µg/L	526.78 ppb	15:18:02
3	Mo 202.031†	16915.6	17320.6	551.43 µg/L	551.43 ppb	15:18:22
3	Ni 231.604†	40039.0	40993.3	515.60 µg/L	515.60 ppb	15:18:02
3	P 214.914†	10618.3	10845.7	2578.0 µg/L	2578.0 ppb	15:18:22
3	Pb 220.353†	8376.9	8463.3	519.94 µg/L	519.94 ppb	15:18:22
3	S 181.975 Axial†	3127.7	3108.5	2552.8 µg/L	2552.8 ppb	15:18:22
3	Sb 206.836†	3899.6	3906.9	514.27 µg/L	514.27 ppb	15:18:22
3	Se 196.026†	6296.1	6420.3	2570 µg/L	2570 ppb	15:18:22
3	SiO2†	99144.2	99561.3	10628 µg/L	10628 ppb	15:18:02
3	Si 251.611†	301303.2	306949.8	4957.4 µg/L	4957.4 ppb	15:18:02
3	Sn 189.927†	7767.3	7939.9	551.39 µg/L	551.39 ppb	15:18:22
3	Ti 334.940†	494745.0	504689.0	504.94 µg/L	504.94 ppb	15:18:02
3	Tl 190.801†	3887.5	4089.7	557.29 µg/L	557.29 ppb	15:18:22
3	U 409.014†	7321.2	7765.3	517.97 µg/L	517.97 ppb	15:18:02
3	V 292.402†	95435.5	97214.7	523.30 µg/L	523.30 ppb	15:18:02
3	Zn 213.857†	82911.3	84201.6	518.17 µg/L	518.17 ppb	15:18:02

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1725935.5	98.340	%	0.4631				0.47%
Sc RADIAL	149439.2	101	%	0.6				0.61%
Y 371.029	1036520.4	97.413	%	0.4176				0.43%
Ag 328.068†	65517.5	266.92	µg/L	0.126	266.92	ppb	0.126	0.05%
QC value within limits for Ag 328.068 Recovery = 106.77%								
Al 396.153Radial†	25758.3	5282.6	µg/L	32.46	5282.6	ppb	32.46	0.61%
QC value within limits for Al 396.153Radial Recovery = 105.65%								
As 188.979†	1380.1	488.97	µg/L	5.311	488.97	ppb	5.311	1.09%
QC value within limits for As 188.979 Recovery = 97.79%								
B 249.677†	32127.2	522.00	µg/L	1.124	522.00	ppb	1.124	0.22%
QC value within limits for B 249.677 Recovery = 104.40%								
Ba 233.527†	119327.0	520.00	µg/L	0.990	520.00	ppb	0.990	0.19%
QC value within limits for Ba 233.527 Recovery = 104.00%								
Be 313.107†	887563.5	266.51	µg/L	0.285	266.51	ppb	0.285	0.11%
QC value within limits for Be 313.107 Recovery = 106.60%								
Ca 317.933Radial†	85755.2	5159.7	µg/L	16.44	5159.7	ppb	16.44	0.32%
QC value within limits for Ca 317.933Radial Recovery = 103.19%								
Cd 226.502†	74204.1	509.18	µg/L	1.340	509.18	ppb	1.340	0.26%
QC value within limits for Cd 226.502 Recovery = 101.84%								
Co 228.616†	38522.7	521.29	µg/L	0.204	521.29	ppb	0.204	0.04%

```
   QC value within limits for Co 228.616  Recovery = 104.26%
Cr 267.716†            59237.5      499.00 µg/L         0.764      499.00 ppb          0.764   0.15%
   QC value within limits for Cr 267.716  Recovery = 99.80%
Cu 324.752†           123698.7      522.84 µg/L         0.623      522.84 ppb          0.623   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.57%
Fe 238.204 Radial†     76915.2      5175.5 µg/L         27.35      5175.5 ppb          27.35   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.51%
K 766.490 Radial†       6329.3      2601.9 µg/L         47.21      2601.9 ppb          47.21   1.81%
   QC value within limits for K 766.490 Radial  Recovery = 104.08%
Mg 279.077 IEC†        13263.4      5449.9 µg/L         23.33      5449.9 ppb          23.33   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.00%
Mn 257.610†           394756.0      527.41 µg/L         0.854      527.41 ppb          0.854   0.16%
   QC value within limits for Mn 257.610  Recovery = 105.48%
Mo 202.031†            17246.9      549.09 µg/L         2.212      549.09 ppb          2.212   0.40%
   QC value within limits for Mo 202.031  Recovery = 109.82%
Na 589.592 Radial†     17142.4      2600.7 µg/L          0.67      2600.7 ppb           0.67   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 104.03%
Ni 231.604†            40908.1      514.53 µg/L         1.472      514.53 ppb          1.472   0.29%
   QC value within limits for Ni 231.604  Recovery = 102.91%
P 214.914†             10770.6      2560.0 µg/L         17.30      2560.0 ppb          17.30   0.68%
   QC value within limits for P 214.914  Recovery = 102.40%
Pb 220.353†             8418.0      517.16 µg/L         2.867      517.16 ppb          2.867   0.55%
   QC value within limits for Pb 220.353  Recovery = 103.43%
S 181.975 Axial†        3088.6      2536.5 µg/L         17.56      2536.5 ppb          17.56   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 101.46%
Sb 206.836†             3889.7      511.97 µg/L         2.001      511.97 ppb          2.001   0.39%
   QC value within limits for Sb 206.836  Recovery = 102.39%
Se 196.026†             6393.5        2560 µg/L          11.1        2560 ppb           11.1   0.43%
   QC value within limits for Se 196.026  Recovery = 102.46%
SiO2†                  99589.8       10631 µg/L          25.8       10631 ppb           25.8   0.24%
   QC value within limits for SiO2  Recovery = 99.40%
Si 251.611†           307369.5      4964.2 µg/L          7.86      4964.2 ppb           7.86   0.16%
   QC value within limits for Si 251.611  Recovery = 99.28%
Sn 189.927†             7919.6      549.99 µg/L         1.879      549.99 ppb          1.879   0.34%
   QC value within limits for Sn 189.927  Recovery = 110.00%
Sr 421.552†           236780.8      546.18 µg/L         2.032      546.18 ppb          2.032   0.37%
   QC value within limits for Sr 421.552  Recovery = 109.24%
Ti 334.940†           505376.2      505.63 µg/L         0.934      505.63 ppb          0.934   0.18%
   QC value within limits for Ti 334.940  Recovery = 101.13%
Tl 190.801†             4070.9      554.78 µg/L         2.246      554.78 ppb          2.246   0.40%
   QC value greater than the upper limit for Tl 190.801  Recovery = 110.96%
U 409.014†              7575.0      506.10 µg/L        10.510      506.10 ppb         10.510   2.08%
   QC value within limits for U 409.014  Recovery = 101.22%
V 292.402†             97382.8      524.16 µg/L         0.762      524.16 ppb          0.762   0.15%
   QC value within limits for V 292.402  Recovery = 104.83%
Zn 213.857†            84323.6      518.93 µg/L         0.911      518.93 ppb          0.911   0.18%
   QC value within limits for Zn 213.857  Recovery = 103.79%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/30/2010 15:18:31
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	153206.5	153206.5	104	%			15:19:00
1	Al 396.153Radial†	-69.1	-3.8	-0.7740	µg/L	-0.7740	ppb	15:19:20
1	Ca 317.933Radial†	556.4	-161.1	-9.6939	µg/L	-9.6939	ppb	15:19:20
1	Fe 238.204 Radial†	151.0	5.0	0.3342	µg/L	0.3342	ppb	15:19:20
1	K 766.490 Radial†	1545.6	178.5	73.465	µg/L	73.465	ppb	15:19:00
1	Mg 279.077 IEC†	183.7	8.5	3.4678	µg/L	3.4678	ppb	15:19:20
1	Na 589.592 Radial†	1438.4	181.3	27.462	µg/L	27.462	ppb	15:19:00
1	Sr 421.552†	-358.4	-124.2	-0.2864	µg/L	-0.2864	ppb	15:19:00
1	Sc 361.383	1778800.0	1778800.0	101.35	%			15:20:22
1	Y 371.029	1078865.1	1078865.1	101.39	%			15:20:22
1	Ag 328.068†	3508.3	14.4	0.0586	µg/L	0.0586	ppb	15:20:24
1	As 188.979†	-17.8	0.1	0.0419	µg/L	0.0419	ppb	15:20:44
1	B 249.677†	3246.0	-27.6	-0.4511	µg/L	-0.4511	ppb	15:20:44
1	Ba 233.527†	-161.5	2.8	0.0123	µg/L	0.0123	ppb	15:20:44
1	Be 313.107†	-690.5	104.3	0.0315	µg/L	0.0315	ppb	15:20:24
1	Cd 226.502†	-93.8	17.5	0.1201	µg/L	0.1201	ppb	15:20:44
1	Co 228.616†	-157.8	16.7	0.2258	µg/L	0.2258	ppb	15:20:44
1	Cr 267.716†	167.7	-13.1	-0.1107	µg/L	-0.1107	ppb	15:20:44
1	Cu 324.752†	2840.6	13.8	0.0589	µg/L	0.0589	ppb	15:20:24
1	Mn 257.610†	177.2	-0.8	-0.0012	µg/L	-0.0012	ppb	15:20:44
1	Mo 202.031†	-35.1	0.1	0.0047	µg/L	0.0047	ppb	15:20:44
1	Ni 231.604†	-78.0	1.0	0.0124	µg/L	0.0124	ppb	15:20:44
1	P 214.914†	12.7	7.5	1.7929	µg/L	1.7929	ppb	15:20:44
1	Pb 220.353†	60.9	-36.9	-2.2599	µg/L	-2.2599	ppb	15:20:44
1	S 181.975 Axial†	88.2	-0.7	-0.5610	µg/L	-0.5610	ppb	15:20:44
1	Sb 206.836†	85.2	6.0	0.7853	µg/L	0.7853	ppb	15:20:44
1	Se 196.026†	10.8	-2.9	-1.16	µg/L	-1.16	ppb	15:20:44
1	SiO2†	1722.8	-53.3	-5.7163	µg/L	-5.7163	ppb	15:20:44
1	Si 251.611†	826.6	-133.1	-2.1594	µg/L	-2.1594	ppb	15:20:24
1	Sn 189.927†	10.2	12.7	0.8755	µg/L	0.8755	ppb	15:20:44
1	Ti 334.940†	723.6	-171.6	-0.1727	µg/L	-0.1727	ppb	15:20:24
1	Tl 190.801†	-106.8	11.7	1.5760	µg/L	1.5760	ppb	15:20:44
1	U 409.014†	-277.6	9.9	0.6216	µg/L	0.6216	ppb	15:20:24
1	V 292.402†	320.4	6.3	0.0333	µg/L	0.0333	ppb	15:20:24
1	Zn 213.857†	499.5	-31.7	-0.1969	µg/L	-0.1969	ppb	15:20:44
2	Sc RADIAL	150721.0	150721.0	102	%			15:19:22
2	Al 396.153Radial†	-48.2	15.6	3.2216	µg/L	3.2216	ppb	15:19:42
2	Ca 317.933Radial†	575.9	-133.2	-8.0115	µg/L	-8.0115	ppb	15:19:42
2	Fe 238.204 Radial†	145.3	1.8	0.1215	µg/L	0.1215	ppb	15:19:42
2	K 766.490 Radial†	1483.0	141.7	58.321	µg/L	58.321	ppb	15:19:22
2	Mg 279.077 IEC†	163.5	-8.4	-3.4473	µg/L	-3.4473	ppb	15:19:42
2	Na 589.592 Radial†	1391.5	158.1	23.961	µg/L	23.961	ppb	15:19:22
2	Sr 421.552†	-206.6	19.0	0.0439	µg/L	0.0439	ppb	15:19:22
2	Sc 361.383	1728906.2	1728906.2	98.509	%			15:20:46
2	Y 371.029	1049241.8	1049241.8	98.609	%			15:20:46
2	Ag 328.068†	3539.7	146.2	0.5945	µg/L	0.5945	ppb	15:20:48
2	As 188.979†	-19.5	-2.1	-0.7336	µg/L	-0.7336	ppb	15:21:09
2	B 249.677†	3272.0	91.1	1.4866	µg/L	1.4866	ppb	15:21:09
2	Ba 233.527†	-163.6	-3.9	-0.0168	µg/L	-0.0168	ppb	15:21:09
2	Be 313.107†	-841.3	-68.5	-0.0184	µg/L	-0.0184	ppb	15:20:48
2	Cd 226.502†	-103.2	5.3	0.0364	µg/L	0.0364	ppb	15:21:09
2	Co 228.616†	-181.8	-12.1	-0.1642	µg/L	-0.1642	ppb	15:21:09
2	Cr 267.716†	152.0	-24.2	-0.2095	µg/L	-0.2095	ppb	15:21:09
2	Cu 324.752†	2859.0	113.3	0.4833	µg/L	0.4833	ppb	15:20:48
2	Mn 257.610†	143.9	-29.5	-0.0393	µg/L	-0.0393	ppb	15:21:09
2	Mo 202.031†	-37.4	-3.3	-0.1034	µg/L	-0.1034	ppb	15:21:09
2	Ni 231.604†	-63.8	13.1	0.1646	µg/L	0.1646	ppb	15:21:09
2	P 214.914†	23.6	18.9	4.5148	µg/L	4.5148	ppb	15:21:09
2	Pb 220.353†	114.5	19.3	1.1760	µg/L	1.1760	ppb	15:21:09

2	S 181.975 Axial†	90.2	3.8	3.1293 µg/L	3.1293 ppb	15:21:09
2	Sb 206.836†	78.1	1.2	0.1567 µg/L	0.1567 ppb	15:21:09
2	Se 196.026†	19.1	5.8	2.34 µg/L	2.34 ppb	15:21:09
2	SiO2†	1747.5	20.9	2.2278 µg/L	2.2278 ppb	15:21:09
2	Si 251.611†	794.7	-141.9	-2.2988 µg/L	-2.2988 ppb	15:20:48
2	Sn 189.927†	3.9	6.5	0.4511 µg/L	0.4511 ppb	15:21:09
2	Ti 334.940†	935.4	64.0	0.0614 µg/L	0.0614 ppb	15:20:48
2	Tl 190.801†	-90.0	25.7	3.4630 µg/L	3.4630 ppb	15:21:09
2	U 409.014†	-168.9	112.3	7.0568 µg/L	7.0568 ppb	15:20:48
2	V 292.402†	376.2	72.1	0.3855 µg/L	0.3855 ppb	15:20:48
2	Zn 213.857†	512.2	-4.7	-0.0302 µg/L	-0.0302 ppb	15:21:09
3	Sc RADIAL	152025.6	152025.6	103 %		15:19:44
3	Al 396.153Radial†	-48.0	16.2	3.3357 µg/L	3.3357 ppb	15:20:04
3	Ca 317.933Radial†	564.3	-149.3	-8.9821 µg/L	-8.9821 ppb	15:20:04
3	Fe 238.204 Radial†	130.3	-14.0	-0.9447 µg/L	-0.9447 ppb	15:20:04
3	K 766.490 Radial†	1448.5	95.7	39.384 µg/L	39.384 ppb	15:19:44
3	Mg 279.077 IEC†	171.7	-1.8	-0.7289 µg/L	-0.7289 ppb	15:20:04
3	Na 589.592 Radial†	1555.7	306.1	46.445 µg/L	46.445 ppb	15:19:44
3	Sr 421.552†	-343.8	-112.6	-0.2598 µg/L	-0.2598 ppb	15:19:44
3	Sc 361.383	1742344.9	1742344.9	99.275 %		15:21:11
3	Y 371.029	1057263.7	1057263.7	99.363 %		15:21:11
3	Ag 328.068†	3422.8	0.7	0.0063 µg/L	0.0063 ppb	15:21:13
3	As 188.979†	-7.6	10.0	3.4870 µg/L	3.4870 ppb	15:21:33
3	B 249.677†	3234.7	28.0	0.4564 µg/L	0.4564 ppb	15:21:33
3	Ba 233.527†	-159.6	1.4	0.0057 µg/L	0.0057 ppb	15:21:33
3	Be 313.107†	-681.8	98.8	0.0318 µg/L	0.0318 ppb	15:21:13
3	Cd 226.502†	-79.8	29.6	0.2034 µg/L	0.2034 ppb	15:21:33
3	Co 228.616†	-174.0	-2.8	-0.0378 µg/L	-0.0378 ppb	15:21:33
3	Cr 267.716†	147.7	-29.7	-0.2566 µg/L	-0.2566 ppb	15:21:33
3	Cu 324.752†	2965.4	198.1	0.8405 µg/L	0.8405 ppb	15:21:13
3	Mn 257.610†	154.7	-19.8	-0.0264 µg/L	-0.0264 ppb	15:21:33
3	Mo 202.031†	-28.3	6.3	0.1999 µg/L	0.1999 ppb	15:21:33
3	Ni 231.604†	-70.4	6.9	0.0872 µg/L	0.0872 ppb	15:21:33
3	P 214.914†	20.5	15.7	3.7359 µg/L	3.7359 ppb	15:21:33
3	Pb 220.353†	105.1	8.9	0.5395 µg/L	0.5395 ppb	15:21:33
3	S 181.975 Axial†	78.6	-8.5	-6.9957 µg/L	-6.9957 ppb	15:21:33
3	Sb 206.836†	83.3	5.8	0.7689 µg/L	0.7689 ppb	15:21:33
3	Se 196.026†	22.9	9.5	3.79 µg/L	3.79 ppb	15:21:33
3	SiO2†	1714.3	-26.3	-2.8302 µg/L	-2.8302 ppb	15:21:33
3	Si 251.611†	912.8	-29.2	-0.4782 µg/L	-0.4782 ppb	15:21:13
3	Sn 189.927†	4.9	7.5	0.5192 µg/L	0.5192 ppb	15:21:33
3	Ti 334.940†	727.2	-153.0	-0.1564 µg/L	-0.1564 ppb	15:21:13
3	Tl 190.801†	-113.2	3.0	0.4038 µg/L	0.4038 ppb	15:21:33
3	U 409.014†	-166.2	116.3	7.2590 µg/L	7.2590 ppb	15:21:13
3	V 292.402†	217.4	-90.9	-0.4764 µg/L	-0.4764 ppb	15:21:13
3	Zn 213.857†	498.8	-22.1	-0.1381 µg/L	-0.1381 ppb	15:21:33

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750017.0	99.712	%	1.4710				1.48%
Sc RADIAL	151984.4	103	%	0.8				0.82%
Y 371.029	1061790.2	99.788	%	1.4399				1.44%
Ag 328.068†	53.8	0.2198	µg/L	0.32552	0.2198	ppb	0.32552	148.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.4	1.9278	µg/L	2.34050	1.9278	ppb	2.34050	121.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.7	0.9318	µg/L	2.24662	0.9318	ppb	2.24662	241.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.5	0.4973	µg/L	0.96947	0.4973	ppb	0.96947	194.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.1	0.0004	µg/L	0.01528	0.0004	ppb	0.01528	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	44.9	0.0150	µg/L	0.02892	0.0150	ppb	0.02892	193.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-147.9	-8.8958	µg/L	0.84451	-8.8958	ppb	0.84451	9.49%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.5	0.1200	µg/L	0.08355	0.1200	ppb	0.08355	69.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.6	0.0079	µg/L	0.19896	0.0079	ppb	0.19896	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -22.4     -0.1923 µg/L       0.07446     -0.1923 ppb        0.07446  38.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              108.4      0.4609 µg/L       0.39130      0.4609 ppb        0.39130  84.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.4     -0.1630 µg/L       0.68528     -0.1630 ppb        0.68528 420.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        138.6      57.056 µg/L       17.0760      57.056 ppb        17.0760  29.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6     -0.2362 µg/L       3.48380     -0.2362 ppb        3.48380 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -16.7     -0.0223 µg/L       0.01938     -0.0223 ppb        0.01938  86.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.1      0.0337 µg/L       0.15371      0.0337 ppb        0.15371 455.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       215.2      32.622 µg/L       12.0980      32.622 ppb        12.0980  37.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.0      0.0880 µg/L       0.07611      0.0880 ppb        0.07611  86.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                14.0      3.3479 µg/L       1.40183      3.3479 ppb        1.40183  41.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.9     -0.1815 µg/L       1.82791     -0.1815 ppb        1.82791 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.8     -1.4758 µg/L       5.12412     -1.4758 ppb        5.12412 347.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.3      0.5703 µg/L       0.35827      0.5703 ppb        0.35827  62.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.1        1.66 µg/L         2.544        1.66 ppb          2.544 153.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -19.6     -2.1063 µg/L       4.02123     -2.1063 ppb        4.02123 190.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -101.4     -1.6455 µg/L       1.01329     -1.6455 ppb        1.01329  61.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.6153 µg/L       0.22794      0.6153 ppb        0.22794  37.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -72.6     -0.1674 µg/L       0.18347     -0.1674 ppb        0.18347 109.58%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -86.9     -0.0892 µg/L       0.13068     -0.0892 ppb        0.13068 146.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.5      1.8143 µg/L       1.54345      1.8143 ppb        1.54345  85.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                79.5      4.9791 µg/L       3.77508      4.9791 ppb        3.77508  75.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -4.2     -0.0192 µg/L       0.43332     -0.0192 ppb        0.43332 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -19.5     -0.1217 µg/L       0.08455     -0.1217 ppb        0.08455  69.46%
   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: 3/30/2010 15:21:41
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	151538.9	151538.9	103	%			15:22:11
1	Al 396.153Radial†	1003.2	1041.6	214.21	µg/L	214.21	ppb	15:22:13
1	Ca 317.933Radial†	4094.6	3296.4	198.34	µg/L	198.34	ppb	15:22:13
1	Fe 238.204 Radial†	1655.5	1474.3	99.205	µg/L	99.205	ppb	15:22:13
1	K 766.490 Radial†	1863.9	505.5	207.89	µg/L	207.89	ppb	15:22:11
1	Mg 279.077 IEC†	958.9	766.6	314.63	µg/L	314.63	ppb	15:22:13
1	Na 589.592 Radial†	3105.5	1822.9	276.62	µg/L	276.62	ppb	15:22:13
1	Sr 421.552†	2223.1	2390.3	5.5126	µg/L	5.5126	ppb	15:22:13
1	Sc 361.383	1725451.3	1725451.3	98.312	%			15:22:25
1	Y 371.029	1045817.3	1045817.3	98.287	%			15:22:25
1	Ag 328.068†	4999.9	1638.6	6.6213	µg/L	6.6213	ppb	15:22:27
1	As 188.979†	69.8	88.7	31.042	µg/L	31.042	ppb	15:22:47
1	B 249.677†	6177.2	3052.9	49.758	µg/L	49.758	ppb	15:22:27
1	Ba 233.527†	1015.0	1194.5	5.2065	µg/L	5.2065	ppb	15:22:47
1	Be 313.107†	15418.6	16468.9	4.9544	µg/L	4.9544	ppb	15:22:27
1	Cd 226.502†	613.7	734.2	5.0333	µg/L	5.0333	ppb	15:22:47
1	Co 228.616†	186.0	361.7	4.8917	µg/L	4.8917	ppb	15:22:47
1	Cr 267.716†	742.4	576.6	4.8271	µg/L	4.8271	ppb	15:22:47
1	Cu 324.752†	5231.2	2532.1	10.728	µg/L	10.728	ppb	15:22:27
1	Mn 257.610†	7935.2	7895.9	10.541	µg/L	10.541	ppb	15:22:27
1	Mo 202.031†	249.7	288.8	9.1970	µg/L	9.1970	ppb	15:22:47
1	Ni 231.604†	321.7	405.1	5.0950	µg/L	5.0950	ppb	15:22:47
1	P 214.914†	631.6	637.5	151.90	µg/L	151.90	ppb	15:22:47
1	Pb 220.353†	247.1	154.4	9.4588	µg/L	9.4588	ppb	15:22:47
1	S 181.975 Axial†	205.3	121.2	99.392	µg/L	99.392	ppb	15:22:47
1	Sb 206.836†	157.6	82.2	10.863	µg/L	10.863	ppb	15:22:47
1	Se 196.026†	84.0	71.8	28.8	µg/L	28.8	ppb	15:22:47
1	SiO2†	3795.8	2107.8	225.10	µg/L	225.10	ppb	15:22:27
1	Si 251.611†	7081.1	6254.0	101.04	µg/L	101.04	ppb	15:22:27
1	Sn 189.927†	137.7	142.6	9.8879	µg/L	9.8879	ppb	15:22:47
1	Ti 334.940†	5809.9	5024.1	4.9951	µg/L	4.9951	ppb	15:22:27
1	Tl 190.801†	48.7	166.6	22.483	µg/L	22.483	ppb	15:22:47
1	U 409.014†	339.2	628.8	39.760	µg/L	39.760	ppb	15:22:27
1	V 292.402†	1353.2	1066.6	5.7900	µg/L	5.7900	ppb	15:22:27
1	Zn 213.857†	2145.8	1658.1	10.236	µg/L	10.236	ppb	15:22:47
2	Sc RADIAL	148899.4	148899.4	101	%			15:22:15
2	Al 396.153Radial†	1029.3	1084.8	223.07	µg/L	223.07	ppb	15:22:17
2	Ca 317.933Radial†	4074.2	3347.0	201.38	µg/L	201.38	ppb	15:22:17
2	Fe 238.204 Radial†	1672.9	1520.1	102.29	µg/L	102.29	ppb	15:22:17
2	K 766.490 Radial†	1737.9	412.6	169.65	µg/L	169.65	ppb	15:22:15
2	Mg 279.077 IEC†	908.9	733.6	301.09	µg/L	301.09	ppb	15:22:17
2	Na 589.592 Radial†	3196.8	1967.2	298.57	µg/L	298.57	ppb	15:22:17
2	Sr 421.552†	2249.0	2454.5	5.6605	µg/L	5.6605	ppb	15:22:17
2	Sc 361.383	1717434.8	1717434.8	97.855	%			15:22:49
2	Y 371.029	1041401.9	1041401.9	97.872	%			15:22:49
2	Ag 328.068†	4641.9	1296.6	5.2704	µg/L	5.2704	ppb	15:22:51
2	As 188.979†	74.8	94.2	32.949	µg/L	32.949	ppb	15:23:11
2	B 249.677†	6109.5	3013.0	49.107	µg/L	49.107	ppb	15:22:51
2	Ba 233.527†	1038.4	1223.3	5.3319	µg/L	5.3319	ppb	15:23:11
2	Be 313.107†	15483.7	16608.6	4.9987	µg/L	4.9987	ppb	15:22:51
2	Cd 226.502†	609.6	733.0	5.0245	µg/L	5.0245	ppb	15:23:11
2	Co 228.616†	220.5	397.7	5.3796	µg/L	5.3796	ppb	15:23:11
2	Cr 267.716†	746.1	583.9	4.8822	µg/L	4.8822	ppb	15:23:11
2	Cu 324.752†	5004.9	2325.7	9.8653	µg/L	9.8653	ppb	15:22:51
2	Mn 257.610†	7953.3	7952.0	10.617	µg/L	10.617	ppb	15:22:51
2	Mo 202.031†	280.4	321.3	10.233	µg/L	10.233	ppb	15:23:11
2	Ni 231.604†	327.6	412.6	5.1901	µg/L	5.1901	ppb	15:23:11
2	P 214.914†	627.8	636.5	151.69	µg/L	151.69	ppb	15:23:11
2	Pb 220.353†	232.0	140.1	8.5854	µg/L	8.5854	ppb	15:23:11

2	S 181.975 Axial†	215.9	132.9	109.04 µg/L	109.04 ppb	15:23:11
2	Sb 206.836†	152.4	77.7	10.282 µg/L	10.282 ppb	15:23:11
2	Se 196.026†	92.7	81.2	32.6 µg/L	32.6 ppb	15:23:11
2	SiO2†	3796.8	2126.8	227.10 µg/L	227.10 ppb	15:22:51
2	Si 251.611†	7000.4	6205.2	100.23 µg/L	100.23 ppb	15:22:51
2	Sn 189.927†	143.5	149.1	10.342 µg/L	10.342 ppb	15:23:11
2	Ti 334.940†	5589.1	4826.0	4.7945 µg/L	4.7945 ppb	15:22:51
2	Tl 190.801†	51.0	169.2	22.830 µg/L	22.830 ppb	15:23:11
2	U 409.014†	463.4	757.3	47.801 µg/L	47.801 ppb	15:22:51
2	V 292.402†	1329.4	1048.7	5.7113 µg/L	5.7113 ppb	15:22:51
2	Zn 213.857†	2132.0	1654.1	10.211 µg/L	10.211 ppb	15:23:11
3	Sc RADIAL	147081.9	147081.9	99.5 %		15:22:19
3	Al 396.153Radial†	978.9	1046.8	215.27 µg/L	215.27 ppb	15:22:21
3	Ca 317.933Radial†	4080.3	3403.1	204.76 µg/L	204.76 ppb	15:22:21
3	Fe 238.204 Radial†	1709.0	1577.0	106.12 µg/L	106.12 ppb	15:22:21
3	K 766.490 Radial†	1766.2	462.3	190.12 µg/L	190.12 ppb	15:22:19
3	Mg 279.077 IEC†	964.2	800.3	328.44 µg/L	328.44 ppb	15:22:21
3	Na 589.592 Radial†	3215.9	2025.6	307.42 µg/L	307.42 ppb	15:22:21
3	Sr 421.552†	2210.3	2443.2	5.6344 µg/L	5.6344 ppb	15:22:21
3	Sc 361.383	1716395.9	1716395.9	97.796 %		15:23:13
3	Y 371.029	1041833.4	1041833.4	97.913 %		15:23:13
3	Ag 328.068†	4888.2	1551.3	6.2744 µg/L	6.2744 ppb	15:23:15
3	As 188.979†	68.7	88.0	30.793 µg/L	30.793 ppb	15:23:35
3	B 249.677†	6241.4	3151.7	51.368 µg/L	51.368 ppb	15:23:15
3	Ba 233.527†	993.3	1177.8	5.1332 µg/L	5.1332 ppb	15:23:35
3	Be 313.107†	15462.3	16596.3	4.9945 µg/L	4.9945 ppb	15:23:15
3	Cd 226.502†	611.3	735.1	5.0386 µg/L	5.0386 ppb	15:23:35
3	Co 228.616†	213.2	390.4	5.2802 µg/L	5.2802 ppb	15:23:35
3	Cr 267.716†	767.8	606.5	5.0744 µg/L	5.0744 ppb	15:23:35
3	Cu 324.752†	5204.8	2533.2	10.739 µg/L	10.739 ppb	15:23:15
3	Mn 257.610†	7893.3	7895.6	10.540 µg/L	10.540 ppb	15:23:15
3	Mo 202.031†	255.2	295.7	9.4171 µg/L	9.4171 ppb	15:23:35
3	Ni 231.604†	332.4	417.8	5.2544 µg/L	5.2544 ppb	15:23:35
3	P 214.914†	626.6	635.7	151.47 µg/L	151.47 ppb	15:23:35
3	Pb 220.353†	252.3	161.1	9.8653 µg/L	9.8653 ppb	15:23:35
3	S 181.975 Axial†	209.7	126.7	103.93 µg/L	103.93 ppb	15:23:35
3	Sb 206.836†	150.6	75.9	10.029 µg/L	10.029 ppb	15:23:35
3	Se 196.026†	96.6	85.2	34.2 µg/L	34.2 ppb	15:23:35
3	SiO2†	3748.3	2079.7	222.08 µg/L	222.08 ppb	15:23:15
3	Si 251.611†	6933.3	6140.9	99.207 µg/L	99.207 ppb	15:23:15
3	Sn 189.927†	138.0	143.7	9.9640 µg/L	9.9640 ppb	15:23:35
3	Ti 334.940†	5690.8	4933.4	4.9007 µg/L	4.9007 ppb	15:23:15
3	Tl 190.801†	46.5	164.6	22.211 µg/L	22.211 ppb	15:23:35
3	U 409.014†	434.0	727.6	45.909 µg/L	45.909 ppb	15:23:15
3	V 292.402†	1234.9	952.9	5.1933 µg/L	5.1933 ppb	15:23:15
3	Zn 213.857†	2110.8	1633.8	10.083 µg/L	10.083 ppb	15:23:35

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719760.6	97.988	%	0.2824				0.29%
Sc RADIAL	149173.4	101	%	1.5				1.50%
Y 371.029	1043017.5	98.024	%	0.2288				0.23%
Ag 328.068†	1495.5	6.0554	µg/L	0.70156	6.0554	ppb	0.70156	11.59%
QC value within limits for Ag 328.068 Recovery = 121.11%								
Al 396.153Radial†	1057.7	217.52	µg/L	4.840	217.52	ppb	4.840	2.22%
QC value within limits for Al 396.153Radial Recovery = 108.76%								
As 188.979†	90.3	31.595	µg/L	1.1796	31.595	ppb	1.1796	3.73%
QC value within limits for As 188.979 Recovery = 105.32%								
B 249.677†	3072.5	50.078	µg/L	1.1640	50.078	ppb	1.1640	2.32%
QC value within limits for B 249.677 Recovery = 100.16%								
Ba 233.527†	1198.6	5.2239	µg/L	0.10050	5.2239	ppb	0.10050	1.92%
QC value within limits for Ba 233.527 Recovery = 104.48%								
Be 313.107†	16558.0	4.9825	µg/L	0.02447	4.9825	ppb	0.02447	0.49%
QC value within limits for Be 313.107 Recovery = 99.65%								
Ca 317.933Radial†	3348.8	201.49	µg/L	3.210	201.49	ppb	3.210	1.59%
QC value within limits for Ca 317.933Radial Recovery = 100.75%								
Cd 226.502†	734.1	5.0321	µg/L	0.00712	5.0321	ppb	0.00712	0.14%
QC value within limits for Cd 226.502 Recovery = 100.64%								
Co 228.616†	383.3	5.1838	µg/L	0.25781	5.1838	ppb	0.25781	4.97%

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   QC value within limits for Co 228.616  Recovery = 103.68%
Cr 267.716†              589.0      4.9279 µg/L       0.12984      4.9279 ppb        0.12984   2.63%
   QC value within limits for Cr 267.716  Recovery = 98.56%
Cu 324.752†             2463.6      10.444 µg/L        0.5014      10.444 ppb         0.5014   4.80%
   QC value within limits for Cu 324.752  Recovery = 104.44%
Fe 238.204 Radial†      1523.8      102.54 µg/L         3.462      102.54 ppb          3.462   3.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.54%
K 766.490 Radial†        460.2      189.22 µg/L        19.137      189.22 ppb         19.137  10.11%
   QC value within limits for K 766.490 Radial  Recovery = 126.15%
Mg 279.077 IEC†          766.8      314.72 µg/L        13.677      314.72 ppb         13.677   4.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.91%
Mn 257.610†             7914.5      10.566 µg/L        0.0439      10.566 ppb         0.0439   0.42%
   QC value within limits for Mn 257.610  Recovery = 105.66%
Mo 202.031†              301.9      9.6156 µg/L       0.54552      9.6156 ppb        0.54552   5.67%
   QC value within limits for Mo 202.031  Recovery = 96.16%
Na 589.592 Radial†      1938.6      294.20 µg/L        15.859      294.20 ppb         15.859   5.39%
   QC value within limits for Na 589.592 Radial  Recovery = 98.07%
Ni 231.604†              411.8      5.1799 µg/L       0.08020      5.1799 ppb        0.08020   1.55%
   QC value within limits for Ni 231.604  Recovery = 103.60%
P 214.914†               636.6      151.69 µg/L         0.216      151.69 ppb          0.216   0.14%
   QC value within limits for P 214.914  Recovery = 101.13%
Pb 220.353†              151.8      9.3032 µg/L       0.65396      9.3032 ppb        0.65396   7.03%
   QC value within limits for Pb 220.353  Recovery = 93.03%
S 181.975 Axial†         126.9      104.12 µg/L         4.828      104.12 ppb          4.828   4.64%
   QC value within limits for S 181.975 Axial  Recovery = 104.12%
Sb 206.836†               78.6      10.391 µg/L        0.4280      10.391 ppb         0.4280   4.12%
   QC value within limits for Sb 206.836  Recovery = 103.91%
Se 196.026†               79.4        31.9 µg/L          2.75        31.9 ppb           2.75   8.64%
   QC value within limits for Se 196.026  Recovery = 106.24%
SiO2†                   2104.8      224.76 µg/L         2.527      224.76 ppb          2.527   1.12%
   QC value within limits for SiO2  Recovery = 105.52%
Si 251.611†             6200.0      100.16 µg/L         0.919      100.16 ppb          0.919   0.92%
   QC value within limits for Si 251.611  Recovery = 100.16%
Sn 189.927†              145.1      10.065 µg/L        0.2432      10.065 ppb         0.2432   2.42%
   QC value within limits for Sn 189.927  Recovery = 100.65%
Sr 421.552†             2429.3      5.6025 µg/L       0.07899      5.6025 ppb        0.07899   1.41%
   QC value within limits for Sr 421.552  Recovery = 112.05%
Ti 334.940†             4927.8      4.8968 µg/L       0.10034      4.8968 ppb        0.10034   2.05%
   QC value within limits for Ti 334.940  Recovery = 97.94%
Tl 190.801†              166.8      22.508 µg/L        0.3103      22.508 ppb         0.3103   1.38%
   QC value within limits for Tl 190.801  Recovery = 112.54%
U 409.014†               704.5      44.490 µg/L        4.2038      44.490 ppb         4.2038   9.45%
   QC value within limits for U 409.014  Recovery = 88.98%
V 292.402†              1022.7      5.5648 µg/L       0.32420      5.5648 ppb        0.32420   5.83%
   QC value within limits for V 292.402  Recovery = 111.30%
Zn 213.857†             1648.7      10.177 µg/L        0.0818      10.177 ppb         0.0818   0.80%
   QC value within limits for Zn 213.857  Recovery = 101.77%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/30/2010 15:23:44
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	135491.3	135491.3	91.7	%			15:24:17
1	Al 396.153Radial†	2286947.2	2495271.1	514200	µg/L	514200	ppb	15:24:15
1	Ca 317.933Radial†	7501113.1	8183504.6	492380	µg/L	492380	ppb	15:24:15
1	Fe 238.204 Radial†	2650457.5	2891680.9	194580	µg/L	194580	ppb	15:24:15
1	K 766.490 Radial†	1541.2	368.7	-93.473	µg/L	-93.473	ppb	15:24:17
1	Mg 279.077 IEC†	1105922.5	1206464.7	494750	µg/L	494750	ppb	15:24:15
1	Na 589.592 Radial†	1485.9	414.6	62.815	µg/L	62.815	ppb	15:24:17
1	Sr 421.552†	1315.2	1656.6	-0.0324	µg/L	-0.0324	ppb	15:24:17
1	Sc 361.383	1550377.8	1550377.8	88.337	%			15:24:30
1	Y 371.029	923448.2	923448.2	86.787	%			15:24:30
1	Ag 328.068†	5848.7	3173.8	-0.9573	µg/L	-0.9573	ppb	15:24:30
1	As 188.979†	-95.4	-90.4	12.078	µg/L	12.078	ppb	15:24:50
1	B 249.677†	3031.8	201.7	3.2757	µg/L	3.2757	ppb	15:24:30
1	Ba 233.527†	439.1	659.2	0.3855	µg/L	0.3855	ppb	15:24:50
1	Be 313.107†	-852.7	-179.7	-0.0514	µg/L	-0.0514	ppb	15:24:30
1	Cd 226.502†	2265.2	2674.3	-2.0990	µg/L	-2.0990	ppb	15:24:50
1	Co 228.616†	89.3	273.6	-6.4479	µg/L	-6.4479	ppb	15:24:50
1	Cr 267.716†	184.7	30.5	0.9733	µg/L	0.9733	ppb	15:24:50
1	Cu 324.752†	-5458.4	-8968.0	3.9288	µg/L	3.9288	ppb	15:24:30
1	Mn 257.610†	15118.7	16939.3	2.5037	µg/L	2.5037	ppb	15:24:30
1	Mo 202.031†	-527.3	-562.2	-1.1409	µg/L	-1.1409	ppb	15:24:50
1	Ni 231.604†	156.5	255.0	3.2074	µg/L	3.2074	ppb	15:24:50
1	P 214.914†	186.0	205.6	31.164	µg/L	31.164	ppb	15:24:50
1	Pb 220.353†	-313.6	-451.9	-2.0684	µg/L	-2.0684	ppb	15:24:50
1	S 181.975 Axial†	145.2	76.7	62.685	µg/L	62.685	ppb	15:24:50
1	Sb 206.836†	119.3	56.9	1.3356	µg/L	1.3356	ppb	15:24:50
1	Se 196.026†	-140.9	-173.0	-1.74	µg/L	-1.74	ppb	15:24:50
1	SiO2†	1610.5	70.0	7.9672	µg/L	7.9672	ppb	15:24:50
1	Si 251.611†	429.3	-462.7	-7.2638	µg/L	-7.2638	ppb	15:24:50
1	Sn 189.927†	24.6	30.4	2.1790	µg/L	2.1790	ppb	15:24:50
1	Ti 334.940†	20051.3	21813.1	-5.6222	µg/L	-5.6222	ppb	15:24:30
1	Tl 190.801†	-176.0	-82.2	-10.613	µg/L	-10.613	ppb	15:24:50
1	U 409.014†	-134.3	131.7	-13.380	µg/L	-13.380	ppb	15:24:30
1	V 292.402†	4112.7	4345.8	2.3469	µg/L	2.3469	ppb	15:24:50
1	Zn 213.857†	4024.9	4031.8	8.3012	µg/L	8.3012	ppb	15:24:50
2	Sc RADIAL	134398.4	134398.4	90.9	%			15:24:22
2	Al 396.153Radial†	2251126.8	2476161.2	510270	µg/L	510270	ppb	15:24:20
2	Ca 317.933Radial†	7350398.9	8084279.8	486410	µg/L	486410	ppb	15:24:20
2	Fe 238.204 Radial†	2597180.3	2856594.8	192220	µg/L	192220	ppb	15:24:20
2	K 766.490 Radial†	1495.4	332.0	-106.03	µg/L	-106.03	ppb	15:24:22
2	Mg 279.077 IEC†	1081861.3	1189810.8	487920	µg/L	487920	ppb	15:24:20
2	Na 589.592 Radial†	1353.7	282.4	42.754	µg/L	42.754	ppb	15:24:22
2	Sr 421.552†	1363.4	1721.3	0.1636	µg/L	0.1636	ppb	15:24:22
2	Sc 361.383	1529302.7	1529302.7	87.136	%			15:24:53
2	Y 371.029	911641.3	911641.3	85.677	%			15:24:53
2	Ag 328.068†	6201.8	3670.3	1.1894	µg/L	1.1894	ppb	15:24:53
2	As 188.979†	-96.9	-93.6	10.426	µg/L	10.426	ppb	15:25:13
2	B 249.677†	3140.4	373.6	6.0801	µg/L	6.0801	ppb	15:24:53
2	Ba 233.527†	440.1	667.2	0.4501	µg/L	0.4501	ppb	15:25:13
2	Be 313.107†	-1112.6	-491.3	-0.1442	µg/L	-0.1442	ppb	15:24:53
2	Cd 226.502†	2279.3	2725.8	-1.4965	µg/L	-1.4965	ppb	15:25:13
2	Co 228.616†	67.3	249.7	-6.6477	µg/L	-6.6477	ppb	15:25:13
2	Cr 267.716†	204.6	56.2	1.1890	µg/L	1.1890	ppb	15:25:13
2	Cu 324.752†	-5392.7	-8977.8	3.3610	µg/L	3.3610	ppb	15:24:53
2	Mn 257.610†	15342.3	17431.7	3.4390	µg/L	3.4390	ppb	15:24:53
2	Mo 202.031†	-551.7	-598.4	-2.5108	µg/L	-2.5108	ppb	15:25:13
2	Ni 231.604†	154.5	255.2	3.2101	µg/L	3.2101	ppb	15:25:13
2	P 214.914†	160.5	179.1	25.620	µg/L	25.620	ppb	15:25:13
2	Pb 220.353†	-375.1	-527.4	-6.8630	µg/L	-6.8630	ppb	15:25:13

2	S 181.975 Axial†	153.7	88.7	72.553 µg/L	72.553 ppb	15:25:13
2	Sb 206.836†	118.2	57.5	1.4515 µg/L	1.4515 ppb	15:25:13
2	Se 196.026†	-176.7	-216.4	-19.9 µg/L	-19.9 ppb	15:25:13
2	SiO2†	1570.0	48.6	5.6934 µg/L	5.6934 ppb	15:25:13
2	Si 251.611†	436.0	-448.3	-7.0262 µg/L	-7.0262 ppb	15:25:13
2	Sn 189.927†	42.7	51.6	3.6464 µg/L	3.6464 ppb	15:25:13
2	Ti 334.940†	20530.0	22675.4	-4.3587 µg/L	-4.3587 ppb	15:24:53
2	Tl 190.801†	-173.6	-82.2	-10.599 µg/L	-10.599 ppb	15:25:13
2	U 409.014†	-99.0	170.2	-10.670 µg/L	-10.670 ppb	15:24:53
2	V 292.402†	4093.4	4387.9	2.8090 µg/L	2.8090 ppb	15:25:13
2	Zn 213.857†	4029.0	4099.2	8.9615 µg/L	8.9615 ppb	15:25:13
3	Sc RADIAL	135723.7	135723.7	91.8 %		15:24:26
3	Al 396.153Radial†	2273186.3	2476011.1	510240 µg/L	510240 ppb	15:24:24
3	Ca 317.933Radial†	7430044.5	8092086.0	486880 µg/L	486880 ppb	15:24:24
3	Fe 238.204 Radial†	2629467.1	2863867.6	192710 µg/L	192710 ppb	15:24:24
3	K 766.490 Radial†	1436.9	252.3	-139.06 µg/L	-139.06 ppb	15:24:26
3	Mg 279.077 IEC†	1095585.1	1193139.5	489280 µg/L	489280 ppb	15:24:24
3	Na 589.592 Radial†	1426.6	347.2	52.627 µg/L	52.627 ppb	15:24:26
3	Sr 421.552†	1369.3	1713.1	0.1409 µg/L	0.1409 ppb	15:24:26
3	Sc 361.383	1526692.0	1526692.0	86.987 %		15:25:16
3	Y 371.029	910201.6	910201.6	85.542 %		15:25:16
3	Ag 328.068†	6006.6	3458.1	0.3388 µg/L	0.3388 ppb	15:25:16
3	As 188.979†	-97.6	-94.5	10.205 µg/L	10.205 ppb	15:25:36
3	B 249.677†	3058.7	285.9	4.6488 µg/L	4.6488 ppb	15:25:16
3	Ba 233.527†	404.6	627.3	0.2707 µg/L	0.2707 ppb	15:25:36
3	Be 313.107†	-1039.4	-409.4	-0.1186 µg/L	-0.1186 ppb	15:25:16
3	Cd 226.502†	2276.1	2726.6	-1.5425 µg/L	-1.5425 ppb	15:25:36
3	Co 228.616†	93.3	279.7	-6.2669 µg/L	-6.2669 ppb	15:25:36
3	Cr 267.716†	191.5	41.6	1.0636 µg/L	1.0636 ppb	15:25:36
3	Cu 324.752†	-5604.7	-9232.1	2.4007 µg/L	2.4007 ppb	15:25:16
3	Mn 257.610†	15289.1	17400.7	3.3421 µg/L	3.3421 ppb	15:25:16
3	Mo 202.031†	-523.8	-567.4	-1.4815 µg/L	-1.4815 ppb	15:25:36
3	Ni 231.604†	202.7	310.9	3.9104 µg/L	3.9104 ppb	15:25:36
3	P 214.914†	185.5	208.2	32.197 µg/L	32.197 ppb	15:25:36
3	Pb 220.353†	-350.8	-500.2	-5.2143 µg/L	-5.2143 ppb	15:25:36
3	S 181.975 Axial†	149.8	84.5	69.091 µg/L	69.091 ppb	15:25:36
3	Sb 206.836†	125.1	65.7	2.5329 µg/L	2.5329 ppb	15:25:36
3	Se 196.026†	-153.6	-190.1	-9.22 µg/L	-9.22 ppb	15:25:36
3	SiO2†	1630.8	121.7	13.502 µg/L	13.502 ppb	15:25:36
3	Si 251.611†	470.7	-407.5	-6.3676 µg/L	-6.3676 ppb	15:25:36
3	Sn 189.927†	20.5	26.1	1.8853 µg/L	1.8853 ppb	15:25:36
3	Ti 334.940†	20741.8	22959.1	-4.1747 µg/L	-4.1747 ppb	15:25:16
3	Tl 190.801†	-132.1	-34.8	-4.2279 µg/L	-4.2279 ppb	15:25:36
3	U 409.014†	-51.7	224.3	-7.3537 µg/L	-7.3537 ppb	15:25:16
3	V 292.402†	4139.6	4449.0	3.0936 µg/L	3.0936 ppb	15:25:36
3	Zn 213.857†	4013.6	4089.5	8.8407 µg/L	8.8407 ppb	15:25:36

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1535457.5	87.487	%	0.7400				0.85%
Sc RADIAL	135204.5	91.5	%	0.48				0.52%
Y 371.029	915097.0	86.002	%	0.6831				0.79%
Ag 328.068†	3434.1	0.1903	µg/L	1.08102	0.1903	ppb	1.08102	567.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2482481.1	511570	µg/L	2282.6	511570	ppb	2282.6	0.45%
QC value within limits for Al 396.153Radial Recovery = 102.31%								
As 188.979†	-92.8	10.903	µg/L	1.0235	10.903	ppb	1.0235	9.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	287.1	4.6682	µg/L	1.40228	4.6682	ppb	1.40228	30.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	651.2	0.3687	µg/L	0.09087	0.3687	ppb	0.09087	24.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-360.1	-0.1047	µg/L	0.04792	-0.1047	ppb	0.04792	45.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8119956.8	488560	µg/L	3319.6	488560	ppb	3319.6	0.68%
QC value within limits for Ca 317.933Radial Recovery = 97.71%								
Cd 226.502†	2708.9	-1.7127	µg/L	0.33534	-1.7127	ppb	0.33534	19.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	267.6	-6.4542	µg/L	0.19046	-6.4542	ppb	0.19046	2.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              42.8      1.0753 µg/L       0.10833      1.0753 ppb        0.10833  10.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9059.3      3.2302 µg/L       0.77242      3.2302 ppb        0.77242  23.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2870714.4      193170 µg/L        1246.1      193170 ppb         1246.1   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.58%
K 766.490 Radial†        317.7     -112.85 µg/L        23.545     -112.85 ppb         23.545  20.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1196471.7      490650 µg/L        3614.1      490650 ppb         3614.1   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.13%
Mn 257.610†           17257.2      3.0950 µg/L       0.51432      3.0950 ppb        0.51432  16.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -576.0     -1.7111 µg/L       0.71323     -1.7111 ppb        0.71323  41.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       348.0      52.732 µg/L       10.0310      52.732 ppb        10.0310  19.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              273.7      3.4426 µg/L       0.40513      3.4426 ppb        0.40513  11.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               197.6      29.660 µg/L        3.5371      29.660 ppb         3.5371  11.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -493.2     -4.7152 µg/L       2.43592     -4.7152 ppb        2.43592  51.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          83.3      68.110 µg/L        5.0065      68.110 ppb         5.0065   7.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               60.1      1.7733 µg/L       0.66034      1.7733 ppb        0.66034  37.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -193.2       -10.3 µg/L          9.13       -10.3 ppb           9.13  88.75%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     80.1      9.0540 µg/L       4.01594      9.0540 ppb        4.01594  44.36%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -439.5     -6.8859 µg/L       0.46433     -6.8859 ppb        0.46433   6.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               36.0      2.5702 µg/L       0.94345      2.5702 ppb        0.94345  36.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1697.0      0.0907 µg/L       0.10724      0.0907 ppb        0.10724 118.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           22482.5     -4.7185 µg/L       0.78801     -4.7185 ppb        0.78801  16.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -66.4     -8.4799 µg/L       3.68229     -8.4799 ppb        3.68229  43.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              175.4     -10.468 µg/L        3.0181     -10.468 ppb         3.0181  28.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4394.2      2.7499 µg/L       0.37684      2.7499 ppb        0.37684  13.70%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4073.5      8.7011 µg/L       0.35156      8.7011 ppb        0.35156   4.04%
   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: 3/30/2010 15:25:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128969.8	128969.8	87.2	%			15:26:16
1	Al 396.153Radial†	2268643.5	2600464.8	535860	µg/L	535860	ppb	15:26:14
1	Ca 317.933Radial†	7418203.8	8502317.5	511560	µg/L	511560	ppb	15:26:14
1	Fe 238.204 Radial†	2626582.9	3010544.4	202580	µg/L	202580	ppb	15:26:14
1	K 766.490 Radial†	13932.0	14656.5	5776.6	µg/L	5776.6	ppb	15:26:16
1	Mg 279.077 IEC†	1076571.1	1233836.2	505980	µg/L	505980	ppb	15:26:16
1	Na 589.592 Radial†	33219.3	36870.5	5593.3	µg/L	5593.3	ppb	15:26:16
1	Sr 421.552†	207277.5	237810.7	544.59	µg/L	544.59	ppb	15:26:16
1	Sc 361.383	1516196.2	1516196.2	86.389	%			15:26:44
1	Y 371.029	903728.7	903728.7	84.933	%			15:26:44
1	Ag 328.068†	63350.6	69884.6	270.36	µg/L	270.36	ppb	15:26:44
1	As 188.979†	1221.1	1431.2	550.90	µg/L	550.90	ppb	15:26:46
1	B 249.677†	30854.5	32485.4	528.04	µg/L	528.04	ppb	15:26:44
1	Ba 233.527†	100374.9	116351.4	504.51	µg/L	504.51	ppb	15:26:44
1	Be 313.107†	710674.5	823428.9	247.28	µg/L	247.28	ppb	15:26:44
1	Cd 226.502†	62827.3	72836.0	479.01	µg/L	479.01	ppb	15:26:44
1	Co 228.616†	29526.2	34350.5	454.56	µg/L	454.56	ppb	15:26:46
1	Cr 267.716†	51013.6	58872.4	496.64	µg/L	496.64	ppb	15:26:46
1	Cu 324.752†	105945.5	119848.6	548.90	µg/L	548.90	ppb	15:26:44
1	Mn 257.610†	328467.2	380042.5	487.37	µg/L	487.37	ppb	15:26:44
1	Mo 202.031†	13247.4	15369.3	506.32	µg/L	506.32	ppb	15:26:46
1	Ni 231.604†	32031.3	37155.8	467.34	µg/L	467.34	ppb	15:26:46
1	P 214.914†	9671.9	11190.7	2643.8	µg/L	2643.8	ppb	15:26:46
1	Pb 220.353†	6483.0	7407.4	481.68	µg/L	481.68	ppb	15:26:46
1	S 181.975 Axial†	3019.3	3407.3	2797.2	µg/L	2797.2	ppb	15:26:46
1	Sb 206.836†	3474.0	3943.3	512.08	µg/L	512.08	ppb	15:26:46
1	Se 196.026†	5295.0	6115.7	2520	µg/L	2520	ppb	15:26:46
1	SiO2†	92064.6	104816.5	11193	µg/L	11193	ppb	15:26:44
1	Si 251.611†	280816.9	324111.7	5236.4	µg/L	5236.4	ppb	15:26:44
1	Sn 189.927†	6181.1	7157.5	497.35	µg/L	497.35	ppb	15:26:46
1	Ti 334.940†	466691.3	539334.3	512.06	µg/L	512.06	ppb	15:26:44
1	Tl 190.801†	2873.7	3443.5	471.18	µg/L	471.18	ppb	15:26:46
1	U 409.014†	7010.7	8399.0	535.66	µg/L	535.66	ppb	15:26:44
1	V 292.402†	87819.1	101345.4	523.74	µg/L	523.74	ppb	15:26:44
1	Zn 213.857†	72585.4	83496.9	497.27	µg/L	497.27	ppb	15:26:44
2	Sc RADIAL	138750.1	138750.1	93.9	%			15:26:21
2	Al 396.153Radial†	2248527.6	2395732.2	493670	µg/L	493670	ppb	15:26:19
2	Ca 317.933Radial†	7355600.1	7836246.5	471490	µg/L	471490	ppb	15:26:19
2	Fe 238.204 Radial†	2604562.2	2774861.9	186720	µg/L	186720	ppb	15:26:19
2	K 766.490 Radial†	14271.2	13892.3	5480.7	µg/L	5480.7	ppb	15:26:21
2	Mg 279.077 IEC†	1111258.4	1183809.4	485470	µg/L	485470	ppb	15:26:21
2	Na 589.592 Radial†	34192.5	35223.4	5343.5	µg/L	5343.5	ppb	15:26:21
2	Sr 421.552†	211492.1	225553.7	516.63	µg/L	516.63	ppb	15:26:21
2	Sc 361.383	1518506.0	1518506.0	86.521	%			15:26:49
2	Y 371.029	904980.6	904980.6	85.051	%			15:26:49
2	Ag 328.068†	63288.3	69701.0	270.75	µg/L	270.75	ppb	15:26:49
2	As 188.979†	1123.1	1315.7	507.01	µg/L	507.01	ppb	15:26:51
2	B 249.677†	31121.0	32739.1	532.19	µg/L	532.19	ppb	15:26:49
2	Ba 233.527†	100793.3	116658.3	506.05	µg/L	506.05	ppb	15:26:49
2	Be 313.107†	712144.3	823876.4	247.41	µg/L	247.41	ppb	15:26:49
2	Cd 226.502†	63049.4	72982.0	481.68	µg/L	481.68	ppb	15:26:49
2	Co 228.616†	29214.5	33938.3	449.81	µg/L	449.81	ppb	15:26:51
2	Cr 267.716†	50659.7	58373.5	492.13	µg/L	492.13	ppb	15:26:51
2	Cu 324.752†	106123.6	119867.9	546.12	µg/L	546.12	ppb	15:26:49
2	Mn 257.610†	329580.6	380751.0	489.17	µg/L	489.17	ppb	15:26:49
2	Mo 202.031†	13269.6	15371.7	505.39	µg/L	505.39	ppb	15:26:51
2	Ni 231.604†	31669.3	36681.0	461.36	µg/L	461.36	ppb	15:26:51
2	P 214.914†	9695.4	11200.9	2647.7	µg/L	2647.7	ppb	15:26:51
2	Pb 220.353†	6408.2	7309.6	473.58	µg/L	473.58	ppb	15:26:51

2	S 181.975 Axial†	3032.1	3416.8	2805.0 µg/L	2805.0 ppb	15:26:51
2	Sb 206.836†	3497.1	3963.8	515.32 µg/L	515.32 ppb	15:26:51
2	Se 196.026†	5153.5	5942.8	2440 µg/L	2440 ppb	15:26:51
2	SiO2†	92148.0	104750.8	11186 µg/L	11186 ppb	15:26:49
2	Si 251.611†	282053.1	325046.0	5251.5 µg/L	5251.5 ppb	15:26:49
2	Sn 189.927†	6186.0	7152.3	496.98 µg/L	496.98 ppb	15:26:51
2	Ti 334.940†	465598.1	537249.0	510.59 µg/L	510.59 ppb	15:26:49
2	Tl 190.801†	2897.1	3465.6	474.15 µg/L	474.15 ppb	15:26:51
2	U 409.014†	7068.1	8453.0	540.87 µg/L	540.87 ppb	15:26:49
2	V 292.402†	87740.2	101099.6	524.10 µg/L	524.10 ppb	15:26:49
2	Zn 213.857†	72899.1	83731.7	500.12 µg/L	500.12 ppb	15:26:49
3	Sc RADIAL	136915.4	136915.4	92.6 %		15:26:25
3	Al 396.153Radial†	2257454.6	2437473.9	502270 µg/L	502270 ppb	15:26:23
3	Ca 317.933Radial†	7359855.8	7945860.1	478080 µg/L	478080 ppb	15:26:23
3	Fe 238.204 Radial†	2604669.3	2812163.8	189230 µg/L	189230 ppb	15:26:23
3	K 766.490 Radial†	14264.5	14088.8	5558.0 µg/L	5558.0 ppb	15:26:25
3	Mg 279.077 IEC†	1106854.3	1194920.1	490030 µg/L	490030 ppb	15:26:25
3	Na 589.592 Radial†	34167.4	35684.5	5413.4 µg/L	5413.4 ppb	15:26:25
3	Sr 421.552†	210799.8	227825.7	521.82 µg/L	521.82 ppb	15:26:25
3	Sc 361.383	1532637.0	1532637.0	87.326 %		15:26:54
3	Y 371.029	912980.1	912980.1	85.803 %		15:26:54
3	Ag 328.068†	63997.3	69838.5	271.10 µg/L	271.10 ppb	15:26:54
3	As 188.979†	1202.6	1394.9	535.14 µg/L	535.14 ppb	15:26:56
3	B 249.677†	30994.7	32262.8	524.43 µg/L	524.43 ppb	15:26:54
3	Ba 233.527†	101425.8	116308.4	504.49 µg/L	504.49 ppb	15:26:54
3	Be 313.107†	717134.4	822001.9	246.85 µg/L	246.85 ppb	15:26:54
3	Cd 226.502†	63386.1	72695.7	479.45 µg/L	479.45 ppb	15:26:54
3	Co 228.616†	29425.6	33868.8	448.74 µg/L	448.74 ppb	15:26:56
3	Cr 267.716†	50967.1	58185.7	490.58 µg/L	490.58 ppb	15:26:56
3	Cu 324.752†	106853.0	119572.3	545.36 µg/L	545.36 ppb	15:26:54
3	Mn 257.610†	331501.6	379438.8	487.23 µg/L	487.23 ppb	15:26:54
3	Mo 202.031†	13182.9	15131.0	497.92 µg/L	497.92 ppb	15:26:56
3	Ni 231.604†	31816.9	36512.6	459.25 µg/L	459.25 ppb	15:26:56
3	P 214.914†	9750.3	11160.5	2638.3 µg/L	2638.3 ppb	15:26:56
3	Pb 220.353†	6296.3	7113.2	461.99 µg/L	461.99 ppb	15:26:56
3	S 181.975 Axial†	3014.7	3364.5	2762.1 µg/L	2762.1 ppb	15:26:56
3	Sb 206.836†	3428.2	3847.7	499.92 µg/L	499.92 ppb	15:26:56
3	Se 196.026†	5199.2	5940.2	2440 µg/L	2440 ppb	15:26:56
3	SiO2†	93000.5	104745.0	11185 µg/L	11185 ppb	15:26:54
3	Si 251.611†	283786.9	324025.9	5235.1 µg/L	5235.1 ppb	15:26:54
3	Sn 189.927†	6228.6	7135.1	495.78 µg/L	495.78 ppb	15:26:56
3	Ti 334.940†	468402.8	535499.2	508.64 µg/L	508.64 ppb	15:26:54
3	Tl 190.801†	2875.8	3410.2	466.69 µg/L	466.69 ppb	15:26:56
3	U 409.014†	7143.9	8464.4	541.20 µg/L	541.20 ppb	15:26:54
3	V 292.402†	88322.9	100831.9	522.33 µg/L	522.33 ppb	15:26:54
3	Zn 213.857†	73408.9	83538.6	498.75 µg/L	498.75 ppb	15:26:54

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1522446.4	86.745	%	0.5071				0.58%
Sc RADIAL	134878.4	91.2	%	3.52				3.85%
Y 371.029	907229.8	85.262	%	0.4717				0.55%
Ag 328.068†	69808.1	270.74	µg/L	0.366	270.74	ppb	0.366	0.14%
QC value within limits for Ag 328.068 Recovery = 108.29%								
Al 396.153Radial†	2477890.3	510600	µg/L	22293.7	510600	ppb	22293.7	4.37%
QC value within limits for Al 396.153Radial Recovery = 102.12%								
As 188.979†	1380.6	531.02	µg/L	22.233	531.02	ppb	22.233	4.19%
QC value within limits for As 188.979 Recovery = 106.20%								
B 249.677†	32495.8	528.22	µg/L	3.885	528.22	ppb	3.885	0.74%
QC value within limits for B 249.677 Recovery = 105.64%								
Ba 233.527†	116439.4	505.02	µg/L	0.894	505.02	ppb	0.894	0.18%
QC value within limits for Ba 233.527 Recovery = 101.00%								
Be 313.107†	823102.4	247.18	µg/L	0.294	247.18	ppb	0.294	0.12%
QC value within limits for Be 313.107 Recovery = 98.87%								
Ca 317.933Radial†	8094808.1	487050	µg/L	21488.5	487050	ppb	21488.5	4.41%
QC value within limits for Ca 317.933Radial Recovery = 97.41%								
Cd 226.502†	72837.9	480.04	µg/L	1.431	480.04	ppb	1.431	0.30%
QC value within limits for Cd 226.502 Recovery = 96.01%								
Co 228.616†	34052.5	451.03	µg/L	3.097	451.03	ppb	3.097	0.69%

QC value within limits for Co 228.616 Recovery = 90.21%

Cr 267.716†	58477.2	493.12 µg/L	3.147	493.12 ppb	3.147	0.64%

QC value within limits for Cr 267.716 Recovery = 98.62%

Cu 324.752†	119762.9	546.80 µg/L	1.864	546.80 ppb	1.864	0.34%

QC value within limits for Cu 324.752 Recovery = 109.36%

Fe 238.204 Radial†	2865856.7	192840 µg/L	8524.4	192840 ppb	8524.4	4.42%

QC value within limits for Fe 238.204 Radial Recovery = 96.42%

K 766.490 Radial†	14212.5	5605.1 µg/L	153.49	5605.1 ppb	153.49	2.74%

QC value within limits for K 766.490 Radial Recovery = 112.10%

Mg 279.077 IEC†	1204188.6	493830 µg/L	10769.0	493830 ppb	10769.0	2.18%

QC value within limits for Mg 279.077 IEC Recovery = 98.77%

Mn 257.610†	380077.4	487.92 µg/L	1.083	487.92 ppb	1.083	0.22%

QC value within limits for Mn 257.610 Recovery = 97.58%

Mo 202.031†	15290.7	503.21 µg/L	4.607	503.21 ppb	4.607	0.92%

QC value within limits for Mo 202.031 Recovery = 100.64%

Na 589.592 Radial†	35926.2	5450.1 µg/L	128.88	5450.1 ppb	128.88	2.36%

QC value within limits for Na 589.592 Radial Recovery = 109.00%

Ni 231.604†	36783.1	462.65 µg/L	4.196	462.65 ppb	4.196	0.91%

QC value within limits for Ni 231.604 Recovery = 92.53%

P 214.914†	11184.0	2643.3 µg/L	4.70	2643.3 ppb	4.70	0.18%

QC value within limits for P 214.914 Recovery = 105.73%

Pb 220.353†	7276.7	472.42 µg/L	9.899	472.42 ppb	9.899	2.10%

QC value within limits for Pb 220.353 Recovery = 94.48%

S 181.975 Axial†	3396.2	2788.1 µg/L	22.86	2788.1 ppb	22.86	0.82%

QC value within limits for S 181.975 Axial Recovery = 111.52%

Sb 206.836†	3918.3	509.11 µg/L	8.121	509.11 ppb	8.121	1.60%

QC value within limits for Sb 206.836 Recovery = 101.82%

Se 196.026†	5999.6	2470 µg/L	43.2	2470 ppb	43.2	1.75%

QC value within limits for Se 196.026 Recovery = 98.76%

SiO2†	104770.8	11188 µg/L	4.2	11188 ppb	4.2	0.04%

QC value within limits for SiO2 Recovery = 104.61%

Si 251.611†	324394.5	5241.0 µg/L	9.12	5241.0 ppb	9.12	0.17%

QC value within limits for Si 251.611 Recovery = 104.82%

Sn 189.927†	7148.3	496.70 µg/L	0.817	496.70 ppb	0.817	0.16%

QC value within limits for Sn 189.927 Recovery = 99.34%

Sr 421.552†	230396.7	527.68 µg/L	14.874	527.68 ppb	14.874	2.82%

QC value within limits for Sr 421.552 Recovery = 105.54%

Ti 334.940†	537360.8	510.43 µg/L	1.713	510.43 ppb	1.713	0.34%

QC value within limits for Ti 334.940 Recovery = 102.09%

Tl 190.801†	3439.8	470.67 µg/L	3.758	470.67 ppb	3.758	0.80%

QC value within limits for Tl 190.801 Recovery = 94.13%

U 409.014†	8438.8	539.25 µg/L	3.108	539.25 ppb	3.108	0.58%

QC value within limits for U 409.014 Recovery = 107.85%

V 292.402†	101092.3	523.39 µg/L	0.936	523.39 ppb	0.936	0.18%

QC value within limits for V 292.402 Recovery = 104.68%

Zn 213.857†	83589.1	498.71 µg/L	1.427	498.71 ppb	1.427	0.29%

QC value within limits for Zn 213.857 Recovery = 99.74%

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/30/2010 15:27:03
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	136437.1	136437.1	92.3	%			15:27:35
1	Al 396.153Radial†	2201698.9	2385608.2	491610	µg/L	491610	ppb	15:27:33
1	Ca 317.933Radial†	7214807.5	7816561.1	470300	µg/L	470300	ppb	15:27:33
1	Fe 238.204 Radial†	6118140.6	6628877.5	446050	µg/L	446050	ppb	15:27:33
1	K 766.490 Radial†	1829.8	669.7	-38.783	µg/L	-38.783	ppb	15:27:35
1	Mg 279.077 IEC†	1054744.4	1142649.0	468350	µg/L	468350	ppb	15:27:33
1	Na 589.592 Radial†	3004311.9	3253971.6	494110	µg/L	494110	ppb	15:27:33
1	Sr 421.552†	4865.0	5492.9	8.9901	µg/L	8.9901	ppb	15:27:35
1	Sc 361.383	1479324.6	1479324.6	84.288	%			15:27:49
1	Y 371.029	877883.5	877883.5	82.504	%			15:27:49
1	Ag 328.068†	2175.4	-866.2	2.3746	µg/L	2.3746	ppb	15:27:49
1	As 188.979†	-230.5	-255.8	10.757	µg/L	10.757	ppb	15:28:09
1	B 249.677†	4044.4	1567.9	25.520	µg/L	25.520	ppb	15:27:49
1	Ba 233.527†	614.2	890.8	-1.8194	µg/L	-1.8194	ppb	15:28:09
1	Be 313.107†	-14328.5	-16213.8	0.0899	µg/L	0.0899	ppb	15:27:49
1	Cd 226.502†	5667.7	6834.2	0.0189	µg/L	0.0189	ppb	15:27:49
1	Co 228.616†	648.7	942.0	-10.524	µg/L	-10.524	ppb	15:28:09
1	Cr 267.716†	423.8	324.2	-0.4000	µg/L	-0.4000	ppb	15:28:09
1	Cu 324.752†	-15616.5	-21316.4	1.3548	µg/L	1.3548	ppb	15:27:49
1	Mn 257.610†	16797.3	19752.8	6.6460	µg/L	6.6460	ppb	15:27:49
1	Mo 202.031†	-897.8	-1030.4	-6.5604	µg/L	-6.5604	ppb	15:27:49
1	Ni 231.604†	211.2	328.5	4.1319	µg/L	4.1319	ppb	15:28:09
1	P 214.914†	924.8	1092.2	67.436	µg/L	67.436	ppb	15:28:09
1	Pb 220.353†	-15.3	-115.1	-3.2134	µg/L	-3.2134	ppb	15:28:09
1	S 181.975 Axial†	174.3	119.1	97.381	µg/L	97.381	ppb	15:28:09
1	Sb 206.836†	113.6	56.7	-1.8998	µg/L	-1.8998	ppb	15:28:09
1	Se 196.026†	-352.5	-431.8	-2.26	µg/L	-2.26	ppb	15:28:09
1	SiO2†	1807.3	391.1	42.666	µg/L	42.666	ppb	15:28:09
1	Si 251.611†	-1781.3	-3062.0	-49.173	µg/L	-49.173	ppb	15:27:49
1	Sn 189.927†	87.2	106.0	7.4350	µg/L	7.4350	ppb	15:28:09
1	Ti 334.940†	24073.9	27675.7	-4.9000	µg/L	-4.9000	ppb	15:27:49
1	Tl 190.801†	-177.4	-93.4	-11.930	µg/L	-11.930	ppb	15:28:09
1	U 409.014†	220380.3	261743.9	16316	µg/L	16316	ppb	15:27:49
1	V 292.402†	7565.3	8665.6	9.6187	µg/L	9.6187	ppb	15:27:49
1	Zn 213.857†	7862.1	8803.1	11.198	µg/L	11.198	ppb	15:28:09
2	Sc RADIAL	133662.6	133662.6	90.4	%			15:27:40
2	Al 396.153Radial†	2208386.1	2442521.6	503340	µg/L	503340	ppb	15:27:38
2	Ca 317.933Radial†	7235360.6	8001557.4	481430	µg/L	481430	ppb	15:27:38
2	Fe 238.204 Radial†	6131145.7	6780861.1	456280	µg/L	456280	ppb	15:27:38
2	K 766.490 Radial†	1926.9	818.3	14.893	µg/L	14.893	ppb	15:27:40
2	Mg 279.077 IEC†	1057709.3	1169649.9	479420	µg/L	479420	ppb	15:27:38
2	Na 589.592 Radial†	3012824.9	3330955.4	505800	µg/L	505800	ppb	15:27:38
2	Sr 421.552†	4780.7	5509.1	8.9403	µg/L	8.9403	ppb	15:27:40
2	Sc 361.383	1491945.8	1491945.8	85.007	%			15:28:12
2	Y 371.029	884642.3	884642.3	83.140	%			15:28:12
2	Ag 328.068†	2189.1	-871.9	1.9264	µg/L	1.9264	ppb	15:28:12
2	As 188.979†	-239.5	-264.0	10.187	µg/L	10.187	ppb	15:28:32
2	B 249.677†	4005.3	1481.3	24.110	µg/L	24.110	ppb	15:28:12
2	Ba 233.527†	580.5	845.0	-2.1494	µg/L	-2.1494	ppb	15:28:32
2	Be 313.107†	-14594.1	-16382.5	0.0185	µg/L	0.0185	ppb	15:28:12
2	Cd 226.502†	5774.9	6903.5	-0.5813	µg/L	-0.5813	ppb	15:28:12
2	Co 228.616†	624.1	906.6	-11.537	µg/L	-11.537	ppb	15:28:32
2	Cr 267.716†	416.0	310.8	-0.2391	µg/L	-0.2391	ppb	15:28:32
2	Cu 324.752†	-15844.3	-21427.7	2.6175	µg/L	2.6175	ppb	15:28:12
2	Mn 257.610†	16681.9	19448.5	5.7732	µg/L	5.7732	ppb	15:28:12
2	Mo 202.031†	-885.2	-1006.6	-5.1979	µg/L	-5.1979	ppb	15:28:12
2	Ni 231.604†	194.7	306.9	3.8599	µg/L	3.8599	ppb	15:28:32
2	P 214.914†	903.2	1057.5	54.786	µg/L	54.786	ppb	15:28:32
2	Pb 220.353†	-9.7	-108.4	-2.3505	µg/L	-2.3505	ppb	15:28:32

2	S 181.975 Axial†	162.6	103.6	84.638 µg/L	84.638 ppb	15:28:32
2	Sb 206.836†	103.8	44.0	-3.7528 µg/L	-3.7528 ppb	15:28:32
2	Se 196.026†	-363.4	-441.0	-2.47 µg/L	-2.47 ppb	15:28:32
2	SiO2†	1787.0	349.0	38.154 µg/L	38.154 ppb	15:28:32
2	Si 251.611†	-1775.4	-3037.1	-48.774 µg/L	-48.774 ppb	15:28:12
2	Sn 189.927†	75.0	90.8	6.3853 µg/L	6.3853 ppb	15:28:32
2	Ti 334.940†	25851.7	29525.6	-3.6306 µg/L	-3.6306 ppb	15:28:12
2	Tl 190.801†	-199.4	-117.5	-15.139 µg/L	-15.139 ppb	15:28:32
2	U 409.014†	221329.4	260648.6	16245 µg/L	16245 ppb	15:28:12
2	V 292.402†	7749.2	8806.1	9.2452 µg/L	9.2452 ppb	15:28:12
2	Zn 213.857†	7893.7	8761.3	9.9501 µg/L	9.9501 ppb	15:28:32
3	Sc RADIAL	132134.1	132134.1	89.4 %		15:27:44
3	Al 396.153Radial†	2215858.4	2479134.6	510880 µg/L	510880 ppb	15:27:42
3	Ca 317.933Radial†	7272268.0	8135414.9	489490 µg/L	489490 ppb	15:27:42
3	Fe 238.204 Radial†	6164754.1	6896900.9	464080 µg/L	464080 ppb	15:27:42
3	K 766.490 Radial†	1800.0	701.0	-38.551 µg/L	-38.551 ppb	15:27:44
3	Mg 279.077 IEC†	1064515.1	1190796.0	488090 µg/L	488090 ppb	15:27:42
3	Na 589.592 Radial†	3025200.4	3383345.7	513750 µg/L	513750 ppb	15:27:42
3	Sr 421.552†	4781.2	5570.8	9.0197 µg/L	9.0197 ppb	15:27:44
3	Sc 361.383	1476102.9	1476102.9	84.105 %		15:28:34
3	Y 371.029	876472.2	876472.2	82.372 %		15:28:34
3	Ag 328.068†	1850.6	-1246.7	0.2207 µg/L	0.2207 ppb	15:28:34
3	As 188.979†	-230.9	-256.9	14.443 µg/L	14.443 ppb	15:28:55
3	B 249.677†	3692.4	1159.9	18.868 µg/L	18.868 ppb	15:28:34
3	Ba 233.527†	608.5	885.6	-2.0717 µg/L	-2.0717 ppb	15:28:55
3	Be 313.107†	-14186.1	-16081.6	0.1172 µg/L	0.1172 ppb	15:28:34
3	Cd 226.502†	5641.6	6817.9	-1.9905 µg/L	-1.9905 ppb	15:28:34
3	Co 228.616†	619.3	908.7	-11.915 µg/L	-11.915 ppb	15:28:55
3	Cr 267.716†	455.9	363.5	0.3478 µg/L	0.3478 ppb	15:28:55
3	Cu 324.752†	-15453.9	-21163.5	5.1254 µg/L	5.1254 ppb	15:28:34
3	Mn 257.610†	16497.8	19440.3	5.3978 µg/L	5.3978 ppb	15:28:34
3	Mo 202.031†	-841.4	-965.6	-3.4268 µg/L	-3.4268 ppb	15:28:34
3	Ni 231.604†	143.2	248.2	3.1217 µg/L	3.1217 ppb	15:28:55
3	P 214.914†	894.1	1058.1	51.284 µg/L	51.284 ppb	15:28:55
3	Pb 220.353†	-28.9	-131.3	-3.5614 µg/L	-3.5614 ppb	15:28:55
3	S 181.975 Axial†	161.0	103.7	84.779 µg/L	84.779 ppb	15:28:55
3	Sb 206.836†	120.2	64.8	-1.1601 µg/L	-1.1601 ppb	15:28:55
3	Se 196.026†	-381.7	-467.4	-10.3 µg/L	-10.3 ppb	15:28:55
3	SiO2†	1817.9	408.3	44.447 µg/L	44.447 ppb	15:28:55
3	Si 251.611†	-1958.8	-3277.6	-52.691 µg/L	-52.691 ppb	15:28:34
3	Sn 189.927†	86.5	105.4	7.3929 µg/L	7.3929 ppb	15:28:55
3	Ti 334.940†	24067.1	27730.1	-5.9375 µg/L	-5.9375 ppb	15:28:34
3	Tl 190.801†	-187.6	-105.9	-13.606 µg/L	-13.606 ppb	15:28:55
3	U 409.014†	219352.6	261092.7	16272 µg/L	16272 ppb	15:28:34
3	V 292.402†	7743.9	8897.6	8.9429 µg/L	8.9429 ppb	15:28:34
3	Zn 213.857†	7836.5	8793.0	9.3727 µg/L	9.3727 ppb	15:28:55

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1482457.8	84.467	%	0.4771				0.56%
Sc RADIAL	134077.9	90.7	%	1.48				1.63%
Y 371.029	879666.0	82.672	%	0.4104				0.50%
Ag 328.068†	-995.0	1.5072	µg/L	1.13650	1.5072	ppb	1.13650	75.40%
Al 396.153Radial†	2435754.8	501940	µg/L	9711.9	501940	ppb	9711.9	1.93%
QC value within limits for Al 396.153Radial Recovery = 100.39%								
As 188.979†	-258.9	11.796	µg/L	2.3107	11.796	ppb	2.3107	19.59%
B 249.677†	1403.1	22.833	µg/L	3.5049	22.833	ppb	3.5049	15.35%
Ba 233.527†	873.8	-2.0135	µg/L	0.17249	-2.0135	ppb	0.17249	8.57%
Be 313.107†	-16226.0	0.0752	µg/L	0.05096	0.0752	ppb	0.05096	67.76%
Ca 317.933Radial†	7984511.1	480410	µg/L	9633.4	480410	ppb	9633.4	2.01%
QC value within limits for Ca 317.933Radial Recovery = 96.08%								
Cd 226.502†	6851.9	-0.8510	µg/L	1.03148	-0.8510	ppb	1.03148	121.21%
Co 228.616†	919.1	-11.326	µg/L	0.7193	-11.326	ppb	0.7193	6.35%
Cr 267.716†	332.8	-0.0971	µg/L	0.39360	-0.0971	ppb	0.39360	405.29%
Cu 324.752†	-21302.5	3.0326	µg/L	1.91926	3.0326	ppb	1.91926	63.29%
Fe 238.204 Radial†	6768879.8	455470	µg/L	9044.5	455470	ppb	9044.5	1.99%
QC value within limits for Fe 238.204 Radial Recovery = 91.09%								
K 766.490 Radial†	729.7	-20.814	µg/L	30.9231	-20.814	ppb	30.9231	148.57%
Mg 279.077 IEC†	1167698.3	478620	µg/L	9892.0	478620	ppb	9892.0	2.07%

QC value within limits for Mg 279.077 IEC Recovery = 95.72%

Mn 257.610†	19547.2	5.9390 µg/L	0.64043	5.9390 ppb	0.64043	10.78%
Mo 202.031†	-1000.9	-5.0617 µg/L	1.57123	-5.0617 ppb	1.57123	31.04%
Na 589.592 Radial†	3322757.6	504550 µg/L	9881.5	504550 ppb	9881.5	1.96%

QC value within limits for Na 589.592 Radial Recovery = 100.91%

Ni 231.604†	294.5	3.7045 µg/L	0.52272	3.7045 ppb	0.52272	14.11%
P 214.914†	1069.3	57.835 µg/L	8.4971	57.835 ppb	8.4971	14.69%
Pb 220.353†	-118.3	-3.0417 µg/L	0.62343	-3.0417 ppb	0.62343	20.50%
S 181.975 Axial†	108.8	88.932 µg/L	7.3171	88.932 ppb	7.3171	8.23%
Sb 206.836†	55.2	-2.2709 µg/L	1.33559	-2.2709 ppb	1.33559	58.81%
Se 196.026†	-446.7	-5.01 µg/L	4.588	-5.01 ppb	4.588	91.56%
SiO2†	382.8	41.756 µg/L	3.2436	41.756 ppb	3.2436	7.77%
Si 251.611†	-3125.6	-50.213 µg/L	2.1553	-50.213 ppb	2.1553	4.29%
Sn 189.927†	100.8	7.0710 µg/L	0.59428	7.0710 ppb	0.59428	8.40%
Sr 421.552†	5524.3	8.9834 µg/L	0.04013	8.9834 ppb	0.04013	0.45%
Ti 334.940†	28310.5	-4.8227 µg/L	1.15537	-4.8227 ppb	1.15537	23.96%
Tl 190.801†	-105.6	-13.558 µg/L	1.6047	-13.558 ppb	1.6047	11.84%
U 409.014†	261161.7	16278 µg/L	35.6	16278 ppb	35.6	0.22%

QC value within limits for U 409.014 Recovery = 108.52%

V 292.402†	8789.8	9.2689 µg/L	0.33852	9.2689 ppb	0.33852	3.65%
Zn 213.857†	8785.8	10.174 µg/L	0.9330	10.174 ppb	0.9330	9.17%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/30/2010 15:29:03
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	144237.0	144237.0	97.6	%			15:29:37
1	Al 396.153Radial†	2225.8	2344.2	31.470	µg/L	31.470	ppb	15:29:39
1	Ca 317.933Radial†	1195.6	527.4	31.732	µg/L	31.732	ppb	15:29:39
1	Fe 238.204 Radial†	-828.0	-989.3	-66.568	µg/L	-66.568	ppb	15:29:39
1	K 766.490 Radial†	705257.6	721512.5	296950	µg/L	296950	ppb	15:29:37
1	Mg 279.077 IEC†	-489.5	-670.5	-37.134	µg/L	-37.134	ppb	15:29:39
1	Na 589.592 Radial†	5220.5	4143.9	365.14	µg/L	365.14	ppb	15:29:39
1	Sr 421.552†	4186503.5	4291009.0	9898.7	µg/L	9898.7	ppb	15:29:35
1	Sc 361.383	1663697.1	1663697.1	94.793	%			15:30:01
1	Y 371.029	981892.5	981892.5	92.279	%			15:30:01
1	Ag 328.068†	-23773.7	-28526.5	5.2873	µg/L	5.2873	ppb	15:30:03
1	As 188.979†	27146.9	28655.7	10253	µg/L	10253	ppb	15:30:03
1	B 249.677†	294226.0	307156.3	4975.3	µg/L	4975.3	ppb	15:30:01
1	Ba 233.527†	3027478.9	3193928.4	13916	µg/L	13916	ppb	15:30:01
1	Be 313.107†	8944351.3	9436414.6	2831.8	µg/L	2831.8	ppb	15:29:57
1	Cd 226.502†	1332439.6	1405735.3	9656.4	µg/L	9656.4	ppb	15:30:01
1	Co 228.616†	659087.3	695460.8	9423.0	µg/L	9423.0	ppb	15:30:01
1	Cr 267.716†	2697213.0	2845181.7	23977	µg/L	23977	ppb	15:30:01
1	Cu 324.752†	4547393.6	4794374.9	20208	µg/L	20208	ppb	15:30:01
1	Mn 257.610†	6649756.4	7014825.5	9376.1	µg/L	9376.1	ppb	15:30:01
1	Mo 202.031†	289733.3	305681.9	9726.8	µg/L	9726.8	ppb	15:30:03
1	Ni 231.604†	734586.5	775012.3	9747.9	µg/L	9747.9	ppb	15:30:01
1	P 214.914†	60333.5	63642.4	14943	µg/L	14943	ppb	15:30:03
1	Pb 220.353†	364788.7	384728.2	23587	µg/L	23587	ppb	15:30:03
1	S 181.975 Axial†	59471.6	62650.4	51439	µg/L	51439	ppb	15:30:03
1	Sb 206.836†	72079.2	75960.2	9771.1	µg/L	9771.1	ppb	15:30:03
1	Se 196.026†	22882.5	24125.7	9660	µg/L	9660	ppb	15:30:03
1	SiO2†	894874.0	942272.7	100390	µg/L	100390	ppb	15:30:01
1	Si 251.611†	2754729.3	2905086.9	46828	µg/L	46828	ppb	15:30:01
1	Sn 189.927†	134561.0	141954.4	9861.0	µg/L	9861.0	ppb	15:30:03
1	Ti 334.940†	9355396.9	9868366.1	9878.7	µg/L	9878.7	ppb	15:29:57
1	Tl 190.801†	66599.1	70374.2	9608.7	µg/L	9608.7	ppb	15:30:03
1	U 409.014†	-8124.9	-8287.4	91.396	µg/L	91.396	ppb	15:30:03
1	V 292.402†	1792814.5	1890976.9	10234	µg/L	10234	ppb	15:30:01
1	Zn 213.857†	2209060.9	2329871.3	14375	µg/L	14375	ppb	15:30:01
2	Sc RADIAL	143986.9	143986.9	97.4	%			15:29:43
2	Al 396.153Radial†	2195.1	2316.5	19.993	µg/L	19.993	ppb	15:29:45
2	Ca 317.933Radial†	1141.8	474.3	28.538	µg/L	28.538	ppb	15:29:45
2	Fe 238.204 Radial†	-802.9	-965.1	-64.938	µg/L	-64.938	ppb	15:29:45
2	K 766.490 Radial†	707310.9	724875.9	298330	µg/L	298330	ppb	15:29:43
2	Mg 279.077 IEC†	-481.5	-663.1	-31.044	µg/L	-31.044	ppb	15:29:45
2	Na 589.592 Radial†	5011.9	3939.1	332.81	µg/L	332.81	ppb	15:29:45
2	Sr 421.552†	4170441.9	4281970.6	9877.9	µg/L	9877.9	ppb	15:29:41
2	Sc 361.383	1652411.6	1652411.6	94.150	%			15:30:11
2	Y 371.029	975307.9	975307.9	91.660	%			15:30:11
2	Ag 328.068†	-23549.1	-28459.3	5.3021	µg/L	5.3021	ppb	15:30:13
2	As 188.979†	27298.6	29012.4	10378	µg/L	10378	ppb	15:30:13
2	B 249.677†	291433.3	306310.0	4961.5	µg/L	4961.5	ppb	15:30:11
2	Ba 233.527†	2999547.4	3186074.1	13882	µg/L	13882	ppb	15:30:11
2	Be 313.107†	9002117.0	9562212.2	2869.5	µg/L	2869.5	ppb	15:30:07
2	Cd 226.502†	1319189.5	1401262.0	9625.7	µg/L	9625.7	ppb	15:30:11
2	Co 228.616†	653056.4	693803.8	9400.6	µg/L	9400.6	ppb	15:30:11
2	Cr 267.716†	2673331.9	2839249.8	23927	µg/L	23927	ppb	15:30:11
2	Cu 324.752†	4508860.7	4786211.3	20173	µg/L	20173	ppb	15:30:11
2	Mn 257.610†	6592131.1	7001530.5	9358.4	µg/L	9358.4	ppb	15:30:11
2	Mo 202.031†	291456.6	309599.8	9851.4	µg/L	9851.4	ppb	15:30:13
2	Ni 231.604†	727344.3	772612.7	9717.7	µg/L	9717.7	ppb	15:30:11
2	P 214.914†	60767.2	64537.7	15157	µg/L	15157	ppb	15:30:13
2	Pb 220.353†	367598.0	390340.2	23931	µg/L	23931	ppb	15:30:13

2	S 181.975 Axial†	60050.6	63693.9	52295	µg/L	52295 ppb	15:30:13
2	Sb 206.836†	72605.5	77038.4	9915.2	µg/L	9915.2 ppb	15:30:13
2	Se 196.026†	23187.2	24614.2	9850	µg/L	9850 ppb	15:30:13
2	SiO2†	886511.8	939838.4	100120	µg/L	100120 ppb	15:30:11
2	Si 251.611†	2730380.4	2899072.8	46728	µg/L	46728 ppb	15:30:11
2	Sn 189.927†	135964.5	144414.7	10032	µg/L	10032 ppb	15:30:13
2	Ti 334.940†	9415705.5	9999826.1	10010	µg/L	10010 ppb	15:30:07
2	Tl 190.801†	67195.6	71487.6	9759.6	µg/L	9759.6 ppb	15:30:13
2	U 409.014†	-7767.0	-7965.8	110.12	µg/L	110.12 ppb	15:30:13
2	V 292.402†	1776456.8	1886519.8	10211	µg/L	10211 ppb	15:30:11
2	Zn 213.857†	2189903.3	2325439.4	14348	µg/L	14348 ppb	15:30:11
3	Sc RADIAL	144822.6	144822.6	98.0	%		15:29:50
3	Al 396.153Radial†	2092.1	2198.4	-0.8903	µg/L	-0.8903 ppb	15:29:52
3	Ca 317.933Radial†	1203.7	530.7	31.929	µg/L	31.929 ppb	15:29:52
3	Fe 238.204 Radial†	-857.2	-1015.7	-68.345	µg/L	-68.345 ppb	15:29:52
3	K 766.490 Radial†	711651.3	725116.0	298430	µg/L	298430 ppb	15:29:50
3	Mg 279.077 IEC†	-463.8	-642.2	-24.276	µg/L	-24.276 ppb	15:29:52
3	Na 589.592 Radial†	4742.0	3633.8	286.38	µg/L	286.38 ppb	15:29:52
3	Sr 421.552†	4172633.3	4259499.7	9826.0	µg/L	9826.0 ppb	15:29:48
3	Sc 361.383	1657044.9	1657044.9	94.414	%		15:30:20
3	Y 371.029	978361.9	978361.9	91.947	%		15:30:20
3	Ag 328.068†	-23261.7	-28085.0	6.8804	µg/L	6.8804 ppb	15:30:22
3	As 188.979†	26976.3	28590.0	10231	µg/L	10231 ppb	15:30:22
3	B 249.677†	292997.5	307101.2	4974.4	µg/L	4974.4 ppb	15:30:20
3	Ba 233.527†	3012217.2	3190585.1	13902	µg/L	13902 ppb	15:30:20
3	Be 313.107†	8910545.1	9438487.5	2832.4	µg/L	2832.4 ppb	15:30:17
3	Cd 226.502†	1326786.2	1405390.3	9654.0	µg/L	9654.0 ppb	15:30:20
3	Co 228.616†	655684.4	694647.7	9412.0	µg/L	9412.0 ppb	15:30:20
3	Cr 267.716†	2685859.8	2844579.4	23972	µg/L	23972 ppb	15:30:20
3	Cu 324.752†	4522887.5	4787677.1	20179	µg/L	20179 ppb	15:30:20
3	Mn 257.610†	6615553.1	7006760.3	9365.4	µg/L	9365.4 ppb	15:30:20
3	Mo 202.031†	290065.6	307260.9	9777.0	µg/L	9777.0 ppb	15:30:22
3	Ni 231.604†	731039.6	774366.6	9739.8	µg/L	9739.8 ppb	15:30:20
3	P 214.914†	60515.4	64090.6	15051	µg/L	15051 ppb	15:30:22
3	Pb 220.353†	365639.3	387174.0	23737	µg/L	23737 ppb	15:30:22
3	S 181.975 Axial†	59594.5	63032.5	51752	µg/L	51752 ppb	15:30:22
3	Sb 206.836†	72374.1	76577.8	9853.0	µg/L	9853.0 ppb	15:30:22
3	Se 196.026†	23069.3	24420.5	9770	µg/L	9770 ppb	15:30:22
3	SiO2†	891398.7	942381.5	100400	µg/L	100400 ppb	15:30:20
3	Si 251.611†	2745197.8	2906657.8	46852	µg/L	46852 ppb	15:30:20
3	Sn 189.927†	135116.5	143112.7	9941.3	µg/L	9941.3 ppb	15:30:22
3	Ti 334.940†	9334301.8	9885642.8	9896.0	µg/L	9896.0 ppb	15:30:17
3	Tl 190.801†	66740.2	70805.7	9666.8	µg/L	9666.8 ppb	15:30:22
3	U 409.014†	-8268.5	-8473.9	78.920	µg/L	78.920 ppb	15:30:22
3	V 292.402†	1783384.1	1888581.0	10222	µg/L	10222 ppb	15:30:20
3	Zn 213.857†	2199491.6	2329091.1	14370	µg/L	14370 ppb	15:30:20

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1657717.9	94.453	%	0.3232				0.34%
Sc RADIAL	144348.8	97.6	%	0.29				0.30%
Y 371.029	978520.8	91.962	%	0.3097				0.34%
Ag 328.068†	-28357.0	5.8233	µg/L	0.91551	5.8233	ppb	0.91551	15.72%
Al 396.153Radial†	2286.4	16.858	µg/L	16.4064	16.858	ppb	16.4064	97.32%
As 188.979†	28752.7	10287	µg/L	79.2	10287	ppb	79.2	0.77%
QC value within limits for As 188.979 Recovery = 102.87%								
B 249.677†	306855.8	4970.4	µg/L	7.69	4970.4	ppb	7.69	0.15%
QC value within limits for B 249.677 Recovery = 99.41%								
Ba 233.527†	3190195.9	13900	µg/L	17.1	13900	ppb	17.1	0.12%
QC value within limits for Ba 233.527 Recovery = 92.67%								
Be 313.107†	9479038.1	2844.6	µg/L	21.62	2844.6	ppb	21.62	0.76%
QC value within limits for Be 313.107 Recovery = 94.82%								
Ca 317.933Radial†	510.8	30.733	µg/L	1.9038	30.733	ppb	1.9038	6.19%
Cd 226.502†	1404129.2	9645.4	µg/L	17.10	9645.4	ppb	17.10	0.18%
QC value within limits for Cd 226.502 Recovery = 96.45%								
Co 228.616†	694637.5	9411.9	µg/L	11.23	9411.9	ppb	11.23	0.12%
QC value within limits for Co 228.616 Recovery = 94.12%								
Cr 267.716†	2843003.6	23958	µg/L	27.5	23958	ppb	27.5	0.11%
QC value within limits for Cr 267.716 Recovery = 95.83%								

Cu 324.752†	4789421.1	20187 µg/L	18.3	20187 ppb	18.3	0.09%
QC value within limits for Cu 324.752 Recovery = 100.93%						
Fe 238.204 Radial†	-990.0	-66.617 µg/L	1.7042	-66.617 ppb	1.7042	2.56%
K 766.490 Radial†	723834.8	297900 µg/L	829.2	297900 ppb	829.2	0.28%
QC value within limits for K 766.490 Radial Recovery = 99.30%						
Mg 279.077 IEC†	-658.6	-30.818 µg/L	6.4320	-30.818 ppb	6.4320	20.87%
Mn 257.610†	7007705.4	9366.6 µg/L	8.95	9366.6 ppb	8.95	0.10%
QC value within limits for Mn 257.610 Recovery = 93.67%						
Mo 202.031†	307514.2	9785.1 µg/L	62.70	9785.1 ppb	62.70	0.64%
QC value within limits for Mo 202.031 Recovery = 97.85%						
Na 589.592 Radial†	3905.6	328.11 µg/L	39.594	328.11 ppb	39.594	12.07%
Ni 231.604†	773997.2	9735.1 µg/L	15.62	9735.1 ppb	15.62	0.16%
QC value within limits for Ni 231.604 Recovery = 97.35%						
P 214.914†	64090.2	15051 µg/L	107.1	15051 ppb	107.1	0.71%
QC value within limits for P 214.914 Recovery = 100.34%						
Pb 220.353†	387414.1	23751 µg/L	172.5	23751 ppb	172.5	0.73%
QC value within limits for Pb 220.353 Recovery = 95.01%						
S 181.975 Axial†	63125.6	51829 µg/L	433.3	51829 ppb	433.3	0.84%
QC value within limits for S 181.975 Axial Recovery = 103.66%						
Sb 206.836†	76525.5	9846.4 µg/L	72.30	9846.4 ppb	72.30	0.73%
QC value within limits for Sb 206.836 Recovery = 98.46%						
Se 196.026†	24386.8	9760 µg/L	98.5	9760 ppb	98.5	1.01%
QC value within limits for Se 196.026 Recovery = 97.61%						
SiO2†	941497.5	100300 µg/L	156.5	100300 ppb	156.5	0.16%
QC value within limits for SiO2 Recovery = 93.74%						
Si 251.611†	2903605.8	46802 µg/L	65.9	46802 ppb	65.9	0.14%
QC value within limits for Si 251.611 Recovery = 93.60%						
Sn 189.927†	143160.6	9944.7 µg/L	85.44	9944.7 ppb	85.44	0.86%
QC value within limits for Sn 189.927 Recovery = 99.45%						
Sr 421.552†	4277493.1	9867.5 µg/L	37.43	9867.5 ppb	37.43	0.38%
QC value within limits for Sr 421.552 Recovery = 98.68%						
Ti 334.940†	9917945.0	9928.3 µg/L	71.57	9928.3 ppb	71.57	0.72%
QC value within limits for Ti 334.940 Recovery = 99.28%						
Tl 190.801†	70889.2	9678.4 µg/L	76.09	9678.4 ppb	76.09	0.79%
QC value within limits for Tl 190.801 Recovery = 96.78%						
U 409.014†	-8242.4	93.479 µg/L	15.7042	93.479 ppb	15.7042	16.80%
V 292.402†	1888692.6	10222 µg/L	11.4	10222 ppb	11.4	0.11%
QC value within limits for V 292.402 Recovery = 102.22%						
Zn 213.857†	2328133.9	14364 µg/L	14.5	14364 ppb	14.5	0.10%
QC value within limits for Zn 213.857 Recovery = 95.76%						

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/30/2010 15:38:03 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033010.sif
Batch ID:
Results Data Set: 033010B
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/30/2010 14:42:21**
IEC File: 031810.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	No
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	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
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
SiO2	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

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/30/2010 15:38:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151504.5	151504.5	102	%			15:38:38
1	Al 396.153Radial†	25127.4	24580.8	5041.9	µg/L	5041.9	ppb	15:38:38
1	Ca 317.933Radial†	86568.9	83771.3	5040.3	µg/L	5040.3	ppb	15:38:38
1	Fe 238.204 Radial†	76327.0	74335.0	5001.9	µg/L	5001.9	ppb	15:38:38

1	K 766.490 Radial†	14132.9	12477.3	5131.1 µg/L	5131.1 ppb	15:38:38
1	Mg 279.077 IEC†	12891.5	12410.0	5098.9 µg/L	5098.9 ppb	15:38:38
1	Na 589.592 Radial†	69008.8	66128.4	10037 µg/L	10037 ppb	15:38:38
1	Sr 421.552†	226574.4	221300.6	510.47 µg/L	510.47 ppb	15:38:36
1	Sc 361.383	1759627.0	1759627.0	100.26 %		15:39:05
1	Y 371.029	1053204.5	1053204.5	98.981 %		15:39:05
1	Ag 328.068†	128951.6	125171.1	503.81 µg/L	503.81 ppb	15:39:05
1	As 188.979†	1422.1	1436.1	508.39 µg/L	508.39 ppb	15:39:25
1	B 249.677†	33989.6	30671.4	498.32 µg/L	498.32 ppb	15:39:05
1	Ba 233.527†	115707.9	115570.8	503.62 µg/L	503.62 ppb	15:39:05
1	Be 313.107†	1680446.8	1676887.5	503.39 µg/L	503.39 ppb	15:39:05
1	Cd 226.502†	73648.0	73567.6	504.83 µg/L	504.83 ppb	15:39:05
1	Co 228.616†	37203.9	37280.2	504.48 µg/L	504.48 ppb	15:39:05
1	Cr 267.716†	59799.2	59466.0	500.92 µg/L	500.92 ppb	15:39:05
1	Cu 324.752†	121918.4	118814.3	502.21 µg/L	502.21 ppb	15:39:05
1	Mn 257.610†	378583.6	377429.2	504.26 µg/L	504.26 ppb	15:39:05
1	Mo 202.031†	15912.6	15906.2	506.42 µg/L	506.42 ppb	15:39:25
1	Ni 231.604†	40265.5	40239.2	506.12 µg/L	506.12 ppb	15:39:05
1	P 214.914†	10703.2	10670.6	2536.6 µg/L	2536.6 ppb	15:39:25
1	Pb 220.353†	8477.2	8358.3	513.39 µg/L	513.39 ppb	15:39:25
1	S 181.975 Axial†	1327.5	1236.3	1017.7 µg/L	1017.7 ppb	15:39:25
1	Sb 206.836†	3955.7	3867.4	508.32 µg/L	508.32 ppb	15:39:25
1	Se 196.026†	1278.1	1261.2	507 µg/L	507 ppb	15:39:25
1	SiO2†	52159.9	50271.9	5356.6 µg/L	5356.6 ppb	15:39:05
1	Si 251.611†	156911.9	155557.5	2507.8 µg/L	2507.8 ppb	15:39:05
1	Sn 189.927†	7362.3	7345.9	510.26 µg/L	510.26 ppb	15:39:25
1	Ti 334.940†	504167.2	501978.0	502.26 µg/L	502.26 ppb	15:39:05
1	Tl 190.801†	3668.6	3776.2	515.02 µg/L	515.02 ppb	15:39:25
1	U 409.014†	7195.7	7460.8	497.79 µg/L	497.79 ppb	15:39:05
1	V 292.402†	94524.8	93970.6	505.63 µg/L	505.63 ppb	15:39:05
1	Zn 213.857†	82270.9	81533.6	501.71 µg/L	501.71 ppb	15:39:05
2	Sc RADIAL	151631.1	151631.1	103 %		15:38:42
2	Al 396.153Radial†	25213.3	24644.1	5055.0 µg/L	5055.0 ppb	15:38:42
2	Ca 317.933Radial†	87483.6	84592.5	5089.7 µg/L	5089.7 ppb	15:38:42
2	Fe 238.204 Radial†	77201.5	75125.4	5055.1 µg/L	5055.1 ppb	15:38:42
2	K 766.490 Radial†	14019.2	12355.0	5080.7 µg/L	5080.7 ppb	15:38:42
2	Mg 279.077 IEC†	13203.3	12703.5	5219.2 µg/L	5219.2 ppb	15:38:42
2	Na 589.592 Radial†	69553.7	66603.4	10109 µg/L	10109 ppb	15:38:42
2	Sr 421.552†	226352.0	220899.3	509.54 µg/L	509.54 ppb	15:38:40
2	Sc 361.383	1767397.7	1767397.7	100.70 %		15:39:28
2	Y 371.029	1058646.7	1058646.7	99.493 %		15:39:28
2	Ag 328.068†	130859.4	126500.1	509.15 µg/L	509.15 ppb	15:39:28
2	As 188.979†	1436.5	1444.1	511.22 µg/L	511.22 ppb	15:39:48
2	B 249.677†	34379.8	30909.8	502.19 µg/L	502.19 ppb	15:39:28
2	Ba 233.527†	116901.8	116249.1	506.58 µg/L	506.58 ppb	15:39:28
2	Be 313.107†	1699340.4	1688280.0	506.81 µg/L	506.81 ppb	15:39:28
2	Cd 226.502†	74684.6	74274.0	509.68 µg/L	509.68 ppb	15:39:28
2	Co 228.616†	37834.3	37743.0	510.74 µg/L	510.74 ppb	15:39:28
2	Cr 267.716†	60466.1	59866.0	504.29 µg/L	504.29 ppb	15:39:28
2	Cu 324.752†	122933.7	119287.8	504.23 µg/L	504.23 ppb	15:39:28
2	Mn 257.610†	382584.1	379741.6	507.35 µg/L	507.35 ppb	15:39:28
2	Mo 202.031†	15964.7	15888.1	505.85 µg/L	505.85 ppb	15:39:48
2	Ni 231.604†	40711.4	40505.5	509.47 µg/L	509.47 ppb	15:39:28
2	P 214.914†	10678.1	10598.7	2519.4 µg/L	2519.4 ppb	15:39:48
2	Pb 220.353†	8471.7	8315.7	510.77 µg/L	510.77 ppb	15:39:48
2	S 181.975 Axial†	1340.2	1243.1	1023.3 µg/L	1023.3 ppb	15:39:48
2	Sb 206.836†	3947.9	3842.3	504.98 µg/L	504.98 ppb	15:39:48
2	Se 196.026†	1275.0	1252.5	504 µg/L	504 ppb	15:39:48
2	SiO2†	52564.4	50444.8	5375.1 µg/L	5375.1 ppb	15:39:28
2	Si 251.611†	158508.2	156454.6	2522.3 µg/L	2522.3 ppb	15:39:28
2	Sn 189.927†	7380.4	7331.5	509.27 µg/L	509.27 ppb	15:39:48
2	Ti 334.940†	508780.8	504348.6	504.62 µg/L	504.62 ppb	15:39:28
2	Tl 190.801†	3664.4	3755.9	512.33 µg/L	512.33 ppb	15:39:48
2	U 409.014†	7366.9	7599.3	506.72 µg/L	506.72 ppb	15:39:28
2	V 292.402†	95762.2	94784.8	509.95 µg/L	509.95 ppb	15:39:28
2	Zn 213.857†	83402.5	82296.5	506.42 µg/L	506.42 ppb	15:39:28
3	Sc RADIAL	151391.2	151391.2	102 %		15:38:46
3	Al 396.153Radial†	25270.0	24738.4	5074.3 µg/L	5074.3 ppb	15:38:46
3	Ca 317.933Radial†	87371.5	84618.2	5091.3 µg/L	5091.3 ppb	15:38:46
3	Fe 238.204 Radial†	77219.5	75262.3	5064.3 µg/L	5064.3 ppb	15:38:46
3	K 766.490 Radial†	14248.8	12600.8	5181.9 µg/L	5181.9 ppb	15:38:46

3	Mg 279.077 IEC†	13166.9	12688.3	5213.0 µg/L	5213.0 ppb	15:38:46
3	Na 589.592 Radial†	69635.2	66790.4	10137 µg/L	10137 ppb	15:38:46
3	Sr 421.552†	229157.3	223988.2	516.67 µg/L	516.67 ppb	15:38:44
3	Sc 361.383	1755860.8	1755860.8	100.04 %		15:39:51
3	Y 371.029	1051150.6	1051150.6	98.788 %		15:39:51
3	Ag 328.068†	129337.0	125832.2	506.50 µg/L	506.50 ppb	15:39:51
3	As 188.979†	1421.3	1438.3	509.21 µg/L	509.21 ppb	15:40:11
3	B 249.677†	34212.5	30966.9	503.12 µg/L	503.12 ppb	15:39:51
3	Ba 233.527†	115940.4	116050.8	505.72 µg/L	505.72 ppb	15:39:51
3	Be 313.107†	1687416.9	1687449.6	506.56 µg/L	506.56 ppb	15:39:51
3	Cd 226.502†	73921.5	73998.5	507.78 µg/L	507.78 ppb	15:39:51
3	Co 228.616†	37565.8	37721.5	510.45 µg/L	510.45 ppb	15:39:51
3	Cr 267.716†	60098.6	59893.2	504.51 µg/L	504.51 ppb	15:39:51
3	Cu 324.752†	122263.6	119420.1	504.79 µg/L	504.79 ppb	15:39:51
3	Mn 257.610†	379537.3	379192.3	506.61 µg/L	506.61 ppb	15:39:51
3	Mo 202.031†	15914.9	15942.5	507.58 µg/L	507.58 ppb	15:40:11
3	Ni 231.604†	40391.8	40451.7	508.79 µg/L	508.79 ppb	15:39:51
3	P 214.914†	10679.2	10669.4	2536.2 µg/L	2536.2 ppb	15:40:11
3	Pb 220.353†	8465.8	8365.1	513.80 µg/L	513.80 ppb	15:40:11
3	S 181.975 Axial†	1323.1	1234.8	1016.5 µg/L	1016.5 ppb	15:40:11
3	Sb 206.836†	3956.0	3876.1	509.43 µg/L	509.43 ppb	15:40:11
3	Se 196.026†	1279.2	1265.1	509 µg/L	509 ppb	15:40:11
3	SiO2†	52368.9	50592.4	5390.8 µg/L	5390.8 ppb	15:39:51
3	Si 251.611†	157439.7	156420.8	2521.7 µg/L	2521.7 ppb	15:39:51
3	Sn 189.927†	7339.1	7338.4	509.75 µg/L	509.75 ppb	15:40:11
3	Ti 334.940†	505640.1	504528.9	504.80 µg/L	504.80 ppb	15:39:51
3	Tl 190.801†	3657.4	3772.9	514.61 µg/L	514.61 ppb	15:40:11
3	U 409.014†	7450.5	7730.9	514.89 µg/L	514.89 ppb	15:39:51
3	V 292.402†	94903.2	94551.0	508.74 µg/L	508.74 ppb	15:39:51
3	Zn 213.857†	82565.8	82004.4	504.61 µg/L	504.61 ppb	15:39:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760961.8	100.34	%	0.335				0.33%
Sc RADIAL	151508.9	102	%	0.1				0.08%
Y 371.029	1054333.9	99.087	%	0.3640				0.37%
Ag 328.068†	125834.5	506.49	µg/L	2.671	506.49	ppb	2.671	0.53%
QC value within limits for Ag 328.068 Recovery = 101.30%								
Al 396.153Radial†	24654.5	5057.1	µg/L	16.32	5057.1	ppb	16.32	0.32%
QC value within limits for Al 396.153Radial Recovery = 101.14%								
As 188.979†	1439.5	509.60	µg/L	1.458	509.60	ppb	1.458	0.29%
QC value within limits for As 188.979 Recovery = 101.92%								
B 249.677†	30849.4	501.21	µg/L	2.544	501.21	ppb	2.544	0.51%
QC value within limits for B 249.677 Recovery = 100.24%								
Ba 233.527†	115956.9	505.31	µg/L	1.519	505.31	ppb	1.519	0.30%
QC value within limits for Ba 233.527 Recovery = 101.06%								
Be 313.107†	1684205.7	505.59	µg/L	1.908	505.59	ppb	1.908	0.38%
QC value within limits for Be 313.107 Recovery = 101.12%								
Ca 317.933Radial†	84327.3	5073.8	µg/L	28.98	5073.8	ppb	28.98	0.57%
QC value within limits for Ca 317.933Radial Recovery = 101.48%								
Cd 226.502†	73946.7	507.43	µg/L	2.442	507.43	ppb	2.442	0.48%
QC value within limits for Cd 226.502 Recovery = 101.49%								
Co 228.616†	37581.5	508.55	µg/L	3.533	508.55	ppb	3.533	0.69%
QC value within limits for Co 228.616 Recovery = 101.71%								
Cr 267.716†	59741.7	503.24	µg/L	2.010	503.24	ppb	2.010	0.40%
QC value within limits for Cr 267.716 Recovery = 100.65%								
Cu 324.752†	119174.0	503.74	µg/L	1.358	503.74	ppb	1.358	0.27%
QC value within limits for Cu 324.752 Recovery = 100.75%								
Fe 238.204 Radial†	74907.6	5040.4	µg/L	33.68	5040.4	ppb	33.68	0.67%
QC value within limits for Fe 238.204 Radial Recovery = 100.81%								
K 766.490 Radial†	12477.7	5131.2	µg/L	50.59	5131.2	ppb	50.59	0.99%
QC value within limits for K 766.490 Radial Recovery = 102.62%								
Mg 279.077 IEC†	12600.6	5177.1	µg/L	67.76	5177.1	ppb	67.76	1.31%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	378787.7	506.08	µg/L	1.612	506.08	ppb	1.612	0.32%
QC value within limits for Mn 257.610 Recovery = 101.22%								
Mo 202.031†	15912.3	506.62	µg/L	0.882	506.62	ppb	0.882	0.17%
QC value within limits for Mo 202.031 Recovery = 101.32%								
Na 589.592 Radial†	66507.4	10094	µg/L	51.8	10094	ppb	51.8	0.51%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.94%
Ni 231.604†            40398.8      508.13 µg/L        1.771      508.13 ppb          1.771   0.35%
   QC value within limits for Ni 231.604  Recovery = 101.63%
P 214.914†             10646.2      2530.7 µg/L         9.83      2530.7 ppb           9.83   0.39%
   QC value within limits for P 214.914  Recovery = 101.23%
Pb 220.353†             8346.3      512.65 µg/L        1.641      512.65 ppb          1.641   0.32%
   QC value within limits for Pb 220.353  Recovery = 102.53%
S 181.975 Axial†        1238.1      1019.2 µg/L         3.61      1019.2 ppb           3.61   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 101.92%
Sb 206.836†             3861.9      507.58 µg/L        2.318      507.58 ppb          2.318   0.46%
   QC value within limits for Sb 206.836  Recovery = 101.52%
Se 196.026†             1259.6         506 µg/L          2.6         506 ppb            2.6   0.51%
   QC value within limits for Se 196.026  Recovery = 101.28%
SiO2†                  50436.4      5374.2 µg/L        17.15      5374.2 ppb          17.15   0.32%
   QC value within limits for SiO2  Recovery = 100.50%
Si 251.611†           156144.3      2517.3 µg/L         8.23      2517.3 ppb           8.23   0.33%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             7338.6      509.76 µg/L        0.493      509.76 ppb          0.493   0.10%
   QC value within limits for Sn 189.927  Recovery = 101.95%
Sr 421.552†           222062.7      512.23 µg/L        3.874      512.23 ppb          3.874   0.76%
   QC value within limits for Sr 421.552  Recovery = 102.45%
Ti 334.940†           503618.5      503.89 µg/L        1.418      503.89 ppb          1.418   0.28%
   QC value within limits for Ti 334.940  Recovery = 100.78%
Tl 190.801†             3768.3      513.99 µg/L        1.448      513.99 ppb          1.448   0.28%
   QC value within limits for Tl 190.801  Recovery = 102.80%
U 409.014†              7597.0      506.47 µg/L        8.551      506.47 ppb          8.551   1.69%
   QC value within limits for U 409.014  Recovery = 101.29%
V 292.402†             94435.5      508.11 µg/L        2.233      508.11 ppb          2.233   0.44%
   QC value within limits for V 292.402  Recovery = 101.62%
Zn 213.857†            81944.8      504.24 µg/L        2.372      504.24 ppb          2.372   0.47%
   QC value within limits for Zn 213.857  Recovery = 100.85%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 15:40:19
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	152271.6	152271.6	103	%			15:40:49
1	Al 396.153Radial†	-38.2	25.8	5.3134	µg/L	5.3134	ppb	15:41:09
1	Ca 317.933Radial†	593.7	-121.6	-7.3179	µg/L	-7.3179	ppb	15:41:09
1	Fe 238.204 Radial†	146.8	1.9	0.1250	µg/L	0.1250	ppb	15:41:09
1	K 766.490 Radial†	1582.5	223.6	91.992	µg/L	91.992	ppb	15:40:49
1	Mg 279.077 IEC†	171.9	-1.9	-0.7624	µg/L	-0.7624	ppb	15:41:09
1	Na 589.592 Radial†	1948.7	685.2	103.97	µg/L	103.97	ppb	15:40:49
1	Sr 421.552†	-262.3	-33.0	-0.0760	µg/L	-0.0760	ppb	15:40:49
1	Sc 361.383	1761746.1	1761746.1	100.38	%			15:42:11
1	Y 371.029	1068118.8	1068118.8	100.38	%			15:42:11
1	Ag 328.068†	3245.5	-213.9	-0.8439	µg/L	-0.8439	ppb	15:42:13
1	As 188.979†	-13.3	4.5	1.5509	µg/L	1.5509	ppb	15:42:33
1	B 249.677†	3249.5	6.9	0.1116	µg/L	0.1116	ppb	15:42:33
1	Ba 233.527†	-156.2	6.5	0.0280	µg/L	0.0280	ppb	15:42:33
1	Be 313.107†	-658.9	129.2	0.0424	µg/L	0.0424	ppb	15:42:13
1	Cd 226.502†	-73.5	36.8	0.2528	µg/L	0.2528	ppb	15:42:33
1	Co 228.616†	-169.4	3.7	0.0497	µg/L	0.0497	ppb	15:42:33
1	Cr 267.716†	146.3	-32.8	-0.2859	µg/L	-0.2859	ppb	15:42:33
1	Cu 324.752†	2940.0	139.9	0.5993	µg/L	0.5993	ppb	15:42:13
1	Mn 257.610†	146.6	-29.6	-0.0395	µg/L	-0.0395	ppb	15:42:33
1	Mo 202.031†	-31.7	3.2	0.1017	µg/L	0.1017	ppb	15:42:33
1	Ni 231.604†	-80.5	-2.3	-0.0290	µg/L	-0.0290	ppb	15:42:33
1	P 214.914†	10.9	5.9	1.4022	µg/L	1.4022	ppb	15:42:33
1	Pb 220.353†	91.1	-6.2	-0.3899	µg/L	-0.3899	ppb	15:42:33
1	S 181.975 Axial†	91.1	3.1	2.5246	µg/L	2.5246	ppb	15:42:33
1	Sb 206.836†	82.7	4.4	0.5766	µg/L	0.5766	ppb	15:42:33
1	Se 196.026†	16.5	2.9	1.16	µg/L	1.16	ppb	15:42:33
1	SiO2†	1686.5	-73.0	-7.8262	µg/L	-7.8262	ppb	15:42:33
1	Si 251.611†	796.3	-155.3	-2.5203	µg/L	-2.5203	ppb	15:42:33
1	Sn 189.927†	8.2	10.7	0.7386	µg/L	0.7386	ppb	15:42:33
1	Ti 334.940†	880.2	-8.7	-0.0137	µg/L	-0.0137	ppb	15:42:13
1	Tl 190.801†	-115.7	1.9	0.2434	µg/L	0.2434	ppb	15:42:33
1	U 409.014†	-94.2	189.9	11.851	µg/L	11.851	ppb	15:42:13
1	V 292.402†	174.7	-135.8	-0.7133	µg/L	-0.7133	ppb	15:42:13
1	Zn 213.857†	549.9	23.3	0.1441	µg/L	0.1441	ppb	15:42:33
2	Sc RADIAL	150618.8	150618.8	102	%			15:41:11
2	Al 396.153Radial†	-53.4	10.5	2.1418	µg/L	2.1418	ppb	15:41:31
2	Ca 317.933Radial†	581.3	-127.4	-7.6675	µg/L	-7.6675	ppb	15:41:31
2	Fe 238.204 Radial†	171.2	27.3	1.8369	µg/L	1.8369	ppb	15:41:31
2	K 766.490 Radial†	1606.1	263.5	108.45	µg/L	108.45	ppb	15:41:11
2	Mg 279.077 IEC†	179.0	6.9	2.8302	µg/L	2.8302	ppb	15:41:31
2	Na 589.592 Radial†	1952.8	710.0	107.71	µg/L	107.71	ppb	15:41:11
2	Sr 421.552†	-168.0	56.8	0.1310	µg/L	0.1310	ppb	15:41:11
2	Sc 361.383	1744841.8	1744841.8	99.417	%			15:42:35
2	Y 371.029	1059308.4	1059308.4	99.555	%			15:42:35
2	Ag 328.068†	3616.7	190.8	0.7580	µg/L	0.7580	ppb	15:42:37
2	As 188.979†	-24.5	-7.0	-2.4263	µg/L	-2.4263	ppb	15:42:57
2	B 249.677†	3270.5	59.3	0.9680	µg/L	0.9680	ppb	15:42:57
2	Ba 233.527†	-154.1	7.2	0.0313	µg/L	0.0313	ppb	15:42:57
2	Be 313.107†	-485.0	297.7	0.0894	µg/L	0.0894	ppb	15:42:37
2	Cd 226.502†	-103.0	6.4	0.0440	µg/L	0.0440	ppb	15:42:57
2	Co 228.616†	-197.0	-25.7	-0.3482	µg/L	-0.3482	ppb	15:42:57
2	Cr 267.716†	149.9	-27.8	-0.2344	µg/L	-0.2344	ppb	15:42:57
2	Cu 324.752†	2688.9	-84.2	-0.3548	µg/L	-0.3548	ppb	15:42:37
2	Mn 257.610†	185.8	11.3	0.0150	µg/L	0.0150	ppb	15:42:57
2	Mo 202.031†	-25.5	9.1	0.2905	µg/L	0.2905	ppb	15:42:57
2	Ni 231.604†	-56.6	20.9	0.2635	µg/L	0.2635	ppb	15:42:57
2	P 214.914†	13.3	8.4	2.0004	µg/L	2.0004	ppb	15:42:57
2	Pb 220.353†	110.4	14.1	0.8625	µg/L	0.8625	ppb	15:42:57

2	S 181.975 Axial†	98.4	11.2	9.2093 µg/L	9.2093 ppb	15:42:57
2	Sb 206.836†	81.8	4.2	0.5540 µg/L	0.5540 ppb	15:42:57
2	Se 196.026†	12.4	-1.1	-0.426 µg/L	-0.426 ppb	15:42:57
2	SiO2†	1708.7	-34.4	-3.6920 µg/L	-3.6920 ppb	15:42:57
2	Si 251.611†	793.5	-150.5	-2.4395 µg/L	-2.4395 ppb	15:42:57
2	Sn 189.927†	-3.9	-1.4	-0.0980 µg/L	-0.0980 ppb	15:42:57
2	Ti 334.940†	736.5	-144.8	-0.1454 µg/L	-0.1454 ppb	15:42:37
2	Tl 190.801†	-120.7	-4.3	-0.5836 µg/L	-0.5836 ppb	15:42:57
2	U 409.014†	-281.2	0.9	0.0544 µg/L	0.0544 ppb	15:42:37
2	V 292.402†	298.4	-9.7	-0.0495 µg/L	-0.0495 ppb	15:42:37
2	Zn 213.857†	548.3	27.0	0.1659 µg/L	0.1659 ppb	15:42:57
3	Sc RADIAL	150276.3	150276.3	102 %		15:41:33
3	Al 396.153Radial†	-42.9	20.6	4.2398 µg/L	4.2398 ppb	15:41:53
3	Ca 317.933Radial†	575.7	-131.7	-7.9223 µg/L	-7.9223 ppb	15:41:53
3	Fe 238.204 Radial†	159.4	16.1	1.0819 µg/L	1.0819 ppb	15:41:53
3	K 766.490 Radial†	1605.7	266.8	109.77 µg/L	109.77 ppb	15:41:33
3	Mg 279.077 IEC†	158.6	-12.8	-5.2449 µg/L	-5.2449 ppb	15:41:53
3	Na 589.592 Radial†	1794.4	558.5	84.715 µg/L	84.715 ppb	15:41:33
3	Sr 421.552†	-256.8	-31.0	-0.0714 µg/L	-0.0714 ppb	15:41:33
3	Sc 361.383	1748415.8	1748415.8	99.620 %		15:42:59
3	Y 371.029	1061132.7	1061132.7	99.726 %		15:42:59
3	Ag 328.068†	3479.1	45.3	0.1721 µg/L	0.1721 ppb	15:43:01
3	As 188.979†	-15.1	2.5	0.8709 µg/L	0.8709 ppb	15:43:21
3	B 249.677†	3242.7	24.7	0.4031 µg/L	0.4031 ppb	15:43:21
3	Ba 233.527†	-211.2	-49.8	-0.2173 µg/L	-0.2173 ppb	15:43:21
3	Be 313.107†	-621.8	161.4	0.0478 µg/L	0.0478 ppb	15:43:01
3	Cd 226.502†	-106.4	3.2	0.0217 µg/L	0.0217 ppb	15:43:21
3	Co 228.616†	-168.4	3.4	0.0451 µg/L	0.0451 ppb	15:43:21
3	Cr 267.716†	182.8	4.9	0.0428 µg/L	0.0428 ppb	15:43:21
3	Cu 324.752†	2822.4	44.2	0.1848 µg/L	0.1848 ppb	15:43:01
3	Mn 257.610†	163.1	-11.8	-0.0156 µg/L	-0.0156 ppb	15:43:21
3	Mo 202.031†	-27.1	7.5	0.2393 µg/L	0.2393 ppb	15:43:21
3	Ni 231.604†	-73.8	3.8	0.0482 µg/L	0.0482 ppb	15:43:21
3	P 214.914†	21.6	16.6	3.9756 µg/L	3.9756 ppb	15:43:21
3	Pb 220.353†	107.7	11.1	0.6820 µg/L	0.6820 ppb	15:43:21
3	S 181.975 Axial†	89.1	1.7	1.3920 µg/L	1.3920 ppb	15:43:21
3	Sb 206.836†	74.7	-3.1	-0.3965 µg/L	-0.3965 ppb	15:43:21
3	Se 196.026†	12.9	-0.6	-0.241 µg/L	-0.241 ppb	15:43:21
3	SiO2†	1708.0	-38.6	-4.1618 µg/L	-4.1618 ppb	15:43:21
3	Si 251.611†	777.3	-168.4	-2.7378 µg/L	-2.7378 ppb	15:43:21
3	Sn 189.927†	17.4	20.0	1.3815 µg/L	1.3815 ppb	15:43:21
3	Ti 334.940†	767.6	-115.0	-0.1142 µg/L	-0.1142 ppb	15:43:01
3	Tl 190.801†	-132.3	-15.7	-2.1132 µg/L	-2.1132 ppb	15:43:21
3	U 409.014†	-314.3	-31.8	-2.0187 µg/L	-2.0187 ppb	15:43:01
3	V 292.402†	220.4	-88.6	-0.4693 µg/L	-0.4693 ppb	15:43:01
3	Zn 213.857†	528.4	5.8	0.0357 µg/L	0.0357 ppb	15:43:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751667.9	99.806	%	0.5076				0.51%
Sc RADIAL	151055.6	102	%	0.7				0.71%
Y 371.029	1062853.3	99.888	%	0.4370				0.44%
Ag 328.068†	7.4	0.0288	µg/L	0.81049	0.0288	ppb	0.81049	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.0	3.8983	µg/L	1.61314	3.8983	ppb	1.61314	41.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0015	µg/L	2.12733	-0.0015	ppb	2.12733	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.3	0.4942	µg/L	0.43544	0.4942	ppb	0.43544	88.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.0	-0.0527	µg/L	0.14255	-0.0527	ppb	0.14255	270.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	196.1	0.0599	µg/L	0.02571	0.0599	ppb	0.02571	42.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-126.9	-7.6359	µg/L	0.30344	-7.6359	ppb	0.30344	3.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.5	0.1061	µg/L	0.12749	0.1061	ppb	0.12749	120.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-6.2	-0.0845	µg/L	0.22840	-0.0845	ppb	0.22840	270.40%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.6     -0.1592 µg/L       0.17679     -0.1592 ppb        0.17679 111.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               33.3      0.1431 µg/L       0.47842      0.1431 ppb        0.47842 334.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        15.1      1.0146 µg/L       0.85793      1.0146 ppb        0.85793  84.56%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        251.3      103.40 µg/L         9.906      103.40 ppb          9.906   9.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.6     -1.0590 µg/L       4.04567     -1.0590 ppb        4.04567 382.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -10.0     -0.0134 µg/L       0.02732     -0.0134 ppb        0.02732 204.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.6      0.2105 µg/L       0.09765      0.2105 ppb        0.09765  46.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       651.2      98.798 µg/L       12.3396      98.798 ppb        12.3396  12.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.5      0.0942 µg/L       0.15155      0.0942 ppb        0.15155 160.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.3      2.4594 µg/L       1.34672      2.4594 ppb        1.34672  54.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.3      0.3849 µg/L       0.67701      0.3849 ppb        0.67701 175.89%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.3      4.3753 µg/L       4.22448      4.3753 ppb        4.22448  96.55%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.8      0.2447 µg/L       0.55538      0.2447 ppb        0.55538 226.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.163 µg/L        0.8651       0.163 ppb         0.8651 529.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -48.7     -5.2267 µg/L       2.26347     -5.2267 ppb        2.26347  43.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -158.1     -2.5658 µg/L       0.15427     -2.5658 ppb        0.15427   6.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.7      0.6740 µg/L       0.74189      0.6740 ppb        0.74189 110.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -2.4     -0.0055 µg/L       0.11824     -0.0055 ppb        0.11824 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -89.5     -0.0911 µg/L       0.06887     -0.0911 ppb        0.06887  75.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -6.1     -0.8178 µg/L       1.19565     -0.8178 ppb        1.19565 146.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                53.0      3.2957 µg/L       7.48152      3.2957 ppb        7.48152 227.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -78.1     -0.4107 µg/L       0.33575     -0.4107 ppb        0.33575  81.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               18.7      0.1152 µg/L       0.06972      0.1152 ppb        0.06972  60.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 15:54:07
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	152898.0	152898.0	103	%			15:54:41
1	Al 396.153Radial†	25494.9	24712.6	5069.0	µg/L	5069.0	ppb	15:54:41
1	Ca 317.933Radial†	88550.4	84917.2	5109.3	µg/L	5109.3	ppb	15:54:41
1	Fe 238.204 Radial†	78113.2	75383.3	5072.4	µg/L	5072.4	ppb	15:54:41
1	K 766.490 Radial†	14245.1	12460.1	5124.0	µg/L	5124.0	ppb	15:54:41
1	Mg 279.077 IEC†	13260.3	12651.9	5198.1	µg/L	5198.1	ppb	15:54:41
1	Na 589.592 Radial†	69947.5	66422.3	10081	µg/L	10081	ppb	15:54:41
1	Sr 421.552†	225954.2	218686.1	504.44	µg/L	504.44	ppb	15:54:39
1	Sc 361.383	1766476.2	1766476.2	100.65	%			15:54:53
1	Y 371.029	1056827.3	1056827.3	99.322	%			15:54:53
1	Ag 328.068†	130821.0	126529.7	509.27	µg/L	509.27	ppb	15:54:53
1	As 188.979†	1449.4	1457.7	516.01	µg/L	516.01	ppb	15:55:14
1	B 249.677†	34337.2	30885.3	501.79	µg/L	501.79	ppb	15:54:53
1	Ba 233.527†	116922.3	116330.0	506.93	µg/L	506.93	ppb	15:54:53
1	Be 313.107†	1701022.2	1690831.4	507.58	µg/L	507.58	ppb	15:54:53
1	Cd 226.502†	74763.6	74391.2	510.48	µg/L	510.48	ppb	15:54:53
1	Co 228.616†	37890.8	37818.7	511.76	µg/L	511.76	ppb	15:54:53
1	Cr 267.716†	60801.9	60231.0	507.36	µg/L	507.36	ppb	15:54:53
1	Cu 324.752†	123064.6	119481.6	505.05	µg/L	505.05	ppb	15:54:53
1	Mn 257.610†	383529.0	380878.5	508.87	µg/L	508.87	ppb	15:54:53
1	Mo 202.031†	16006.9	15938.4	507.45	µg/L	507.45	ppb	15:55:14
1	Ni 231.604†	40839.2	40653.6	511.33	µg/L	511.33	ppb	15:54:53
1	P 214.914†	10798.6	10723.9	2549.2	µg/L	2549.2	ppb	15:55:14
1	Pb 220.353†	8511.4	8359.5	513.46	µg/L	513.46	ppb	15:55:14
1	S 181.975 Axial†	1341.1	1244.7	1024.6	µg/L	1024.6	ppb	15:55:14
1	Sb 206.836†	3967.2	3863.5	507.74	µg/L	507.74	ppb	15:55:14
1	Se 196.026†	1297.6	1275.7	513	µg/L	513	ppb	15:55:14
1	SiO2†	53075.1	50979.5	5432.2	µg/L	5432.2	ppb	15:54:53
1	Si 251.611†	159406.2	157429.0	2538.1	µg/L	2538.1	ppb	15:54:53
1	Sn 189.927†	7400.1	7354.9	510.89	µg/L	510.89	ppb	15:55:14
1	Ti 334.940†	509982.0	505805.6	506.08	µg/L	506.08	ppb	15:54:53
1	Tl 190.801†	3697.9	3791.1	517.08	µg/L	517.08	ppb	15:55:14
1	U 409.014†	7385.3	7621.4	508.08	µg/L	508.08	ppb	15:54:53
1	V 292.402†	95602.3	94675.5	509.40	µg/L	509.40	ppb	15:54:53
1	Zn 213.857†	83405.4	82342.7	506.69	µg/L	506.69	ppb	15:54:53
2	Sc RADIAL	153813.3	153813.3	104	%			15:54:45
2	Al 396.153Radial†	25906.1	24961.2	5120.3	µg/L	5120.3	ppb	15:54:45
2	Ca 317.933Radial†	90324.6	86113.0	5181.2	µg/L	5181.2	ppb	15:54:45
2	Fe 238.204 Radial†	79894.0	76645.4	5157.4	µg/L	5157.4	ppb	15:54:45
2	K 766.490 Radial†	14489.5	12613.1	5186.9	µg/L	5186.9	ppb	15:54:45
2	Mg 279.077 IEC†	13565.2	12868.7	5286.9	µg/L	5286.9	ppb	15:54:45
2	Na 589.592 Radial†	71256.6	67278.0	10211	µg/L	10211	ppb	15:54:45
2	Sr 421.552†	230368.6	221628.8	511.22	µg/L	511.22	ppb	15:54:43
2	Sc 361.383	1761903.1	1761903.1	100.39	%			15:55:17
2	Y 371.029	1054491.7	1054491.7	99.102	%			15:55:17
2	Ag 328.068†	130499.2	126546.5	509.34	µg/L	509.34	ppb	15:55:17
2	As 188.979†	1426.1	1438.2	509.18	µg/L	509.18	ppb	15:55:37
2	B 249.677†	34599.7	31235.3	507.49	µg/L	507.49	ppb	15:55:17
2	Ba 233.527†	116559.6	116270.2	506.67	µg/L	506.67	ppb	15:55:17
2	Be 313.107†	1696997.8	1691209.1	507.69	µg/L	507.69	ppb	15:55:17
2	Cd 226.502†	74443.4	74265.1	509.60	µg/L	509.60	ppb	15:55:17
2	Co 228.616†	37855.1	37880.8	512.60	µg/L	512.60	ppb	15:55:17
2	Cr 267.716†	60290.1	59878.0	504.39	µg/L	504.39	ppb	15:55:17
2	Cu 324.752†	122978.4	119713.0	506.04	µg/L	506.04	ppb	15:55:17
2	Mn 257.610†	382160.3	380504.2	508.37	µg/L	508.37	ppb	15:55:17
2	Mo 202.031†	15939.1	15912.1	506.62	µg/L	506.62	ppb	15:55:37
2	Ni 231.604†	40586.6	40507.2	509.49	µg/L	509.49	ppb	15:55:17
2	P 214.914†	10736.5	10689.9	2541.1	µg/L	2541.1	ppb	15:55:37
2	Pb 220.353†	8464.9	8335.1	511.96	µg/L	511.96	ppb	15:55:37

2	S 181.975 Axial†	1327.2	1234.3	1016.1 µg/L	1016.1 ppb	15:55:37
2	Sb 206.836†	3978.2	3884.7	510.55 µg/L	510.55 ppb	15:55:37
2	Se 196.026†	1299.1	1280.5	515 µg/L	515 ppb	15:55:37
2	SiO2†	52598.8	50641.9	5396.2 µg/L	5396.2 ppb	15:55:17
2	Si 251.611†	158393.7	156831.4	2528.4 µg/L	2528.4 ppb	15:55:17
2	Sn 189.927†	7363.2	7337.2	509.67 µg/L	509.67 ppb	15:55:37
2	Ti 334.940†	508335.3	505480.4	505.75 µg/L	505.75 ppb	15:55:17
2	Tl 190.801†	3693.7	3796.5	517.79 µg/L	517.79 ppb	15:55:37
2	U 409.014†	7366.6	7621.9	508.14 µg/L	508.14 ppb	15:55:17
2	V 292.402†	95533.2	94853.3	510.32 µg/L	510.32 ppb	15:55:17
2	Zn 213.857†	83149.2	82302.5	506.44 µg/L	506.44 ppb	15:55:17
3	Sc RADIAL	153503.9	153503.9	104 %		15:54:49
3	Al 396.153Radial†	25953.2	25056.8	5139.8 µg/L	5139.8 ppb	15:54:49
3	Ca 317.933Radial†	89994.6	85970.1	5172.6 µg/L	5172.6 ppb	15:54:49
3	Fe 238.204 Radial†	79338.5	76265.2	5131.8 µg/L	5131.8 ppb	15:54:49
3	K 766.490 Radial†	14412.9	12567.4	5168.1 µg/L	5168.1 ppb	15:54:49
3	Mg 279.077 IEC†	13512.1	12843.9	5276.9 µg/L	5276.9 ppb	15:54:49
3	Na 589.592 Radial†	70773.4	66950.7	10162 µg/L	10162 ppb	15:54:49
3	Sr 421.552†	228639.3	220409.6	508.41 µg/L	508.41 ppb	15:54:47
3	Sc 361.383	1744601.8	1744601.8	99.403 %		15:55:40
3	Y 371.029	1045173.0	1045173.0	98.226 %		15:55:40
3	Ag 328.068†	129131.8	126460.1	509.00 µg/L	509.00 ppb	15:55:40
3	As 188.979†	1420.2	1446.5	512.07 µg/L	512.07 ppb	15:56:00
3	B 249.677†	33934.1	30907.5	502.15 µg/L	502.15 ppb	15:55:40
3	Ba 233.527†	115526.7	116382.5	507.16 µg/L	507.16 ppb	15:55:40
3	Be 313.107†	1678703.4	1689568.9	507.20 µg/L	507.20 ppb	15:55:40
3	Cd 226.502†	73616.8	74168.8	508.94 µg/L	508.94 ppb	15:55:40
3	Co 228.616†	37455.8	37853.1	512.22 µg/L	512.22 ppb	15:55:40
3	Cr 267.716†	59770.6	59950.9	505.00 µg/L	505.00 ppb	15:55:40
3	Cu 324.752†	121792.5	119734.9	506.13 µg/L	506.13 ppb	15:55:40
3	Mn 257.610†	378385.7	380482.1	508.34 µg/L	508.34 ppb	15:55:40
3	Mo 202.031†	15905.8	16036.1	510.56 µg/L	510.56 ppb	15:56:00
3	Ni 231.604†	40232.3	40551.8	510.05 µg/L	510.05 ppb	15:55:40
3	P 214.914†	10667.1	10726.2	2549.7 µg/L	2549.7 ppb	15:56:00
3	Pb 220.353†	8410.1	8363.6	513.72 µg/L	513.72 ppb	15:56:00
3	S 181.975 Axial†	1333.4	1253.7	1032.0 µg/L	1032.0 ppb	15:56:00
3	Sb 206.836†	3953.6	3899.3	512.51 µg/L	512.51 ppb	15:56:00
3	Se 196.026†	1280.3	1274.4	512 µg/L	512 ppb	15:56:00
3	SiO2†	52227.3	50787.7	5411.6 µg/L	5411.6 ppb	15:55:40
3	Si 251.611†	156966.4	156960.3	2530.4 µg/L	2530.4 ppb	15:55:40
3	Sn 189.927†	7357.1	7403.9	514.29 µg/L	514.29 ppb	15:56:00
3	Ti 334.940†	503753.2	505892.4	506.16 µg/L	506.16 ppb	15:55:40
3	Tl 190.801†	3662.1	3801.2	518.43 µg/L	518.43 ppb	15:56:00
3	U 409.014†	7305.2	7632.8	508.81 µg/L	508.81 ppb	15:55:40
3	V 292.402†	94531.3	94789.1	510.02 µg/L	510.02 ppb	15:55:40
3	Zn 213.857†	82414.1	82384.4	506.95 µg/L	506.95 ppb	15:55:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757660.4	100.15	%	0.657				0.66%
Sc RADIAL	153405.1	104	%	0.3				0.30%
Y 371.029	1052164.0	98.883	%	0.5795				0.59%
Ag 328.068†	126512.1	509.20	µg/L	0.182	509.20	ppb	0.182	0.04%
QC value within limits for Ag 328.068 Recovery = 101.84%								
Al 396.153Radial†	24910.2	5109.7	µg/L	36.55	5109.7	ppb	36.55	0.72%
QC value within limits for Al 396.153Radial Recovery = 102.19%								
As 188.979†	1447.5	512.42	µg/L	3.425	512.42	ppb	3.425	0.67%
QC value within limits for As 188.979 Recovery = 102.48%								
B 249.677†	31009.4	503.81	µg/L	3.194	503.81	ppb	3.194	0.63%
QC value within limits for B 249.677 Recovery = 100.76%								
Ba 233.527†	116327.6	506.92	µg/L	0.245	506.92	ppb	0.245	0.05%
QC value within limits for Ba 233.527 Recovery = 101.38%								
Be 313.107†	1690536.5	507.49	µg/L	0.258	507.49	ppb	0.258	0.05%
QC value within limits for Be 313.107 Recovery = 101.50%								
Ca 317.933Radial†	85666.7	5154.4	µg/L	39.29	5154.4	ppb	39.29	0.76%
QC value within limits for Ca 317.933Radial Recovery = 103.09%								
Cd 226.502†	74275.0	509.68	µg/L	0.769	509.68	ppb	0.769	0.15%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	37850.9	512.19	µg/L	0.418	512.19	ppb	0.418	0.08%

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   QC value within limits for Co 228.616  Recovery = 102.44%
Cr 267.716†            60020.0      505.58 µg/L         1.569      505.58 ppb          1.569   0.31%
   QC value within limits for Cr 267.716  Recovery = 101.12%
Cu 324.752†           119643.1      505.74 µg/L         0.599      505.74 ppb          0.599   0.12%
   QC value within limits for Cu 324.752  Recovery = 101.15%
Fe 238.204 Radial†     76097.9      5120.5 µg/L         43.57      5120.5 ppb          43.57   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.41%
K 766.490 Radial†      12546.8      5159.6 µg/L         32.29      5159.6 ppb          32.29   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 103.19%
Mg 279.077 IEC†        12788.2      5254.0 µg/L         48.64      5254.0 ppb          48.64   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.08%
Mn 257.610†           380621.6      508.52 µg/L         0.300      508.52 ppb          0.300   0.06%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            15962.2      508.21 µg/L         2.079      508.21 ppb          2.079   0.41%
   QC value within limits for Mo 202.031  Recovery = 101.64%
Na 589.592 Radial†     66883.7       10152 µg/L          65.5       10152 ppb           65.5   0.65%
   QC value within limits for Na 589.592 Radial  Recovery = 101.52%
Ni 231.604†            40570.9      510.29 µg/L         0.944      510.29 ppb          0.944   0.18%
   QC value within limits for Ni 231.604  Recovery = 102.06%
P 214.914†             10713.3      2546.7 µg/L          4.86      2546.7 ppb          4.86   0.19%
   QC value within limits for P 214.914  Recovery = 101.87%
Pb 220.353†             8352.7      513.05 µg/L         0.948      513.05 ppb          0.948   0.18%
   QC value within limits for Pb 220.353  Recovery = 102.61%
S 181.975 Axial†        1244.2      1024.2 µg/L          7.94      1024.2 ppb          7.94   0.78%
   QC value within limits for S 181.975 Axial  Recovery = 102.42%
Sb 206.836†             3882.5      510.27 µg/L         2.400      510.27 ppb          2.400   0.47%
   QC value within limits for Sb 206.836  Recovery = 102.05%
Se 196.026†             1276.9         513 µg/L           1.3         513 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 102.67%
SiO2†                  50803.0      5413.3 µg/L         18.10      5413.3 ppb          18.10   0.33%
   QC value within limits for SiO2  Recovery = 101.23%
Si 251.611†           157073.6      2532.3 µg/L          5.09      2532.3 ppb          5.09   0.20%
   QC value within limits for Si 251.611  Recovery = 101.29%
Sn 189.927†             7365.3      511.62 µg/L         2.390      511.62 ppb          2.390   0.47%
   QC value within limits for Sn 189.927  Recovery = 102.32%
Sr 421.552†           220241.5      508.02 µg/L         3.410      508.02 ppb          3.410   0.67%
   QC value within limits for Sr 421.552  Recovery = 101.60%
Ti 334.940†           505726.1      506.00 µg/L         0.218      506.00 ppb          0.218   0.04%
   QC value within limits for Ti 334.940  Recovery = 101.20%
Tl 190.801†             3796.3      517.77 µg/L         0.678      517.77 ppb          0.678   0.13%
   QC value within limits for Tl 190.801  Recovery = 103.55%
U 409.014†              7625.4      508.34 µg/L         0.406      508.34 ppb          0.406   0.08%
   QC value within limits for U 409.014  Recovery = 101.67%
V 292.402†             94772.6      509.91 µg/L         0.466      509.91 ppb          0.466   0.09%
   QC value within limits for V 292.402  Recovery = 101.98%
Zn 213.857†            82343.2      506.69 µg/L         0.254      506.69 ppb          0.254   0.05%
   QC value within limits for Zn 213.857  Recovery = 101.34%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 15:56:07
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	151439.2	151439.2	102	%			15:56:36
1	Al 396.153Radial†	-72.0	-7.4	-1.5426	µg/L	-1.5426	ppb	15:56:56
1	Ca 317.933Radial†	616.3	-96.4	-5.7988	µg/L	-5.7988	ppb	15:56:56
1	Fe 238.204 Radial†	169.0	24.3	1.6349	µg/L	1.6349	ppb	15:56:56
1	K 766.490 Radial†	1445.7	98.4	40.501	µg/L	40.501	ppb	15:56:36
1	Mg 279.077 IEC†	154.2	-18.3	-7.4960	µg/L	-7.4960	ppb	15:56:56
1	Na 589.592 Radial†	1619.2	374.0	56.749	µg/L	56.749	ppb	15:56:36
1	Sr 421.552†	-165.2	60.4	0.1393	µg/L	0.1393	ppb	15:56:36
1	Sc 361.383	1780635.7	1780635.7	101.46	%			15:57:44
1	Y 371.029	1078953.6	1078953.6	101.40	%			15:57:44
1	Ag 328.068†	3244.7	-249.0	-0.9690	µg/L	-0.9690	ppb	15:57:46
1	As 188.979†	-21.9	-3.9	-1.3519	µg/L	-1.3519	ppb	15:58:06
1	B 249.677†	3281.0	3.6	0.0578	µg/L	0.0578	ppb	15:58:06
1	Ba 233.527†	-154.7	9.6	0.0424	µg/L	0.0424	ppb	15:58:06
1	Be 313.107†	-762.3	34.2	0.0139	µg/L	0.0139	ppb	15:57:46
1	Cd 226.502†	-101.4	10.1	0.0691	µg/L	0.0691	ppb	15:58:06
1	Co 228.616†	-173.3	1.6	0.0220	µg/L	0.0220	ppb	15:58:06
1	Cr 267.716†	179.0	-2.1	-0.0268	µg/L	-0.0268	ppb	15:58:06
1	Cu 324.752†	2941.0	109.8	0.4727	µg/L	0.4727	ppb	15:57:46
1	Mn 257.610†	182.1	3.9	0.0055	µg/L	0.0055	ppb	15:58:06
1	Mo 202.031†	-29.1	6.1	0.1930	µg/L	0.1930	ppb	15:58:06
1	Ni 231.604†	-53.4	25.3	0.3179	µg/L	0.3179	ppb	15:58:06
1	P 214.914†	-6.7	-11.6	-2.7718	µg/L	-2.7718	ppb	15:58:06
1	Pb 220.353†	74.0	-24.0	-1.4785	µg/L	-1.4785	ppb	15:58:06
1	S 181.975 Axial†	91.2	2.2	1.8313	µg/L	1.8313	ppb	15:58:06
1	Sb 206.836†	88.4	9.1	1.1933	µg/L	1.1933	ppb	15:58:06
1	Se 196.026†	5.5	-8.2	-3.26	µg/L	-3.26	ppb	15:58:06
1	SiO2†	1722.5	-55.4	-5.9330	µg/L	-5.9330	ppb	15:58:06
1	Si 251.611†	814.0	-146.4	-2.3730	µg/L	-2.3730	ppb	15:57:46
1	Sn 189.927†	0.5	3.0	0.2076	µg/L	0.2076	ppb	15:58:06
1	Ti 334.940†	800.0	-97.0	-0.1016	µg/L	-0.1016	ppb	15:57:46
1	Tl 190.801†	-108.0	10.6	1.4336	µg/L	1.4336	ppb	15:58:06
1	U 409.014†	-95.3	189.8	11.916	µg/L	11.916	ppb	15:57:46
1	V 292.402†	409.5	93.8	0.5079	µg/L	0.5079	ppb	15:57:46
1	Zn 213.857†	545.2	12.8	0.0767	µg/L	0.0767	ppb	15:58:06
2	Sc RADIAL	151193.9	151193.9	102	%			15:56:58
2	Al 396.153Radial†	-43.5	20.3	4.1777	µg/L	4.1777	ppb	15:57:18
2	Ca 317.933Radial†	606.3	-105.1	-6.3262	µg/L	-6.3262	ppb	15:57:18
2	Fe 238.204 Radial†	149.4	5.4	0.3634	µg/L	0.3634	ppb	15:57:18
2	K 766.490 Radial†	1567.7	220.0	90.539	µg/L	90.539	ppb	15:56:58
2	Mg 279.077 IEC†	165.7	-6.8	-2.7730	µg/L	-2.7730	ppb	15:57:18
2	Na 589.592 Radial†	1434.7	196.2	29.707	µg/L	29.707	ppb	15:56:58
2	Sr 421.552†	-144.2	80.6	0.1860	µg/L	0.1860	ppb	15:56:58
2	Sc 361.383	1788543.9	1788543.9	101.91	%			15:58:08
2	Y 371.029	1084926.2	1084926.2	101.96	%			15:58:08
2	Ag 328.068†	3467.9	-44.1	-0.1775	µg/L	-0.1775	ppb	15:58:10
2	As 188.979†	-14.5	3.4	1.1993	µg/L	1.1993	ppb	15:58:31
2	B 249.677†	3282.6	-9.2	-0.1495	µg/L	-0.1495	ppb	15:58:31
2	Ba 233.527†	-160.2	5.0	0.0214	µg/L	0.0214	ppb	15:58:31
2	Be 313.107†	-876.6	-74.6	-0.0216	µg/L	-0.0216	ppb	15:58:10
2	Cd 226.502†	-88.5	23.2	0.1594	µg/L	0.1594	ppb	15:58:31
2	Co 228.616†	-168.8	6.8	0.0915	µg/L	0.0915	ppb	15:58:31
2	Cr 267.716†	172.5	-9.3	-0.0809	µg/L	-0.0809	ppb	15:58:31
2	Cu 324.752†	2798.2	-43.1	-0.1793	µg/L	-0.1793	ppb	15:58:10
2	Mn 257.610†	188.0	8.9	0.0120	µg/L	0.0120	ppb	15:58:31
2	Mo 202.031†	-30.5	4.8	0.1539	µg/L	0.1539	ppb	15:58:31
2	Ni 231.604†	-56.6	22.4	0.2813	µg/L	0.2813	ppb	15:58:31
2	P 214.914†	16.7	11.4	2.7279	µg/L	2.7279	ppb	15:58:31
2	Pb 220.353†	87.8	-10.8	-0.6657	µg/L	-0.6657	ppb	15:58:31

2	S 181.975 Axial†	84.4	-4.9	-3.9753 µg/L	-3.9753 ppb	15:58:31
2	Sb 206.836†	83.3	3.7	0.4863 µg/L	0.4863 ppb	15:58:31
2	Se 196.026†	10.9	-2.8	-1.14 µg/L	-1.14 ppb	15:58:31
2	SiO2†	1694.0	-90.8	-9.7342 µg/L	-9.7342 ppb	15:58:31
2	Si 251.611†	679.6	-281.8	-4.5682 µg/L	-4.5682 ppb	15:58:10
2	Sn 189.927†	8.5	10.8	0.7504 µg/L	0.7504 ppb	15:58:31
2	Ti 334.940†	780.2	-120.0	-0.1212 µg/L	-0.1212 ppb	15:58:10
2	Tl 190.801†	-120.1	-0.8	-0.1139 µg/L	-0.1139 ppb	15:58:31
2	U 409.014†	-244.9	43.5	2.6943 µg/L	2.6943 ppb	15:58:10
2	V 292.402†	222.5	-91.5	-0.4827 µg/L	-0.4827 ppb	15:58:10
2	Zn 213.857†	522.6	-11.7	-0.0744 µg/L	-0.0744 ppb	15:58:31
3	Sc RADIAL	154076.6	154076.6	104 %		15:57:20
3	Al 396.153Radial†	-54.3	10.8	2.1942 µg/L	2.1942 ppb	15:57:40
3	Ca 317.933Radial†	596.1	-126.0	-7.5815 µg/L	-7.5815 ppb	15:57:40
3	Fe 238.204 Radial†	155.3	8.3	0.5568 µg/L	0.5568 ppb	15:57:40
3	K 766.490 Radial†	1553.2	177.5	73.025 µg/L	73.025 ppb	15:57:20
3	Mg 279.077 IEC†	169.5	-6.1	-2.5093 µg/L	-2.5093 ppb	15:57:40
3	Na 589.592 Radial†	1594.2	322.9	48.967 µg/L	48.967 ppb	15:57:20
3	Sr 421.552†	-178.8	50.1	0.1157 µg/L	0.1157 ppb	15:57:20
3	Sc 361.383	1782784.5	1782784.5	101.58 %		15:58:33
3	Y 371.029	1079758.6	1079758.6	101.48 %		15:58:33
3	Ag 328.068†	3519.5	17.7	0.0810 µg/L	0.0810 ppb	15:58:35
3	As 188.979†	-20.0	-2.0	-0.7016 µg/L	-0.7016 ppb	15:58:55
3	B 249.677†	3260.4	-20.6	-0.3346 µg/L	-0.3346 ppb	15:58:55
3	Ba 233.527†	-168.8	-4.1	-0.0174 µg/L	-0.0174 ppb	15:58:55
3	Be 313.107†	-744.6	52.6	0.0175 µg/L	0.0175 ppb	15:58:35
3	Cd 226.502†	-119.6	-7.7	-0.0530 µg/L	-0.0530 ppb	15:58:55
3	Co 228.616†	-192.4	-17.0	-0.2302 µg/L	-0.2302 ppb	15:58:55
3	Cr 267.716†	193.8	12.2	0.0986 µg/L	0.0986 ppb	15:58:55
3	Cu 324.752†	2820.2	-12.5	-0.0483 µg/L	-0.0483 ppb	15:58:35
3	Mn 257.610†	192.7	14.1	0.0190 µg/L	0.0190 ppb	15:58:55
3	Mo 202.031†	-18.1	16.9	0.5389 µg/L	0.5389 ppb	15:58:55
3	Ni 231.604†	-65.1	13.9	0.1742 µg/L	0.1742 ppb	15:58:55
3	P 214.914†	28.6	23.1	5.5155 µg/L	5.5155 ppb	15:58:55
3	Pb 220.353†	86.4	-11.9	-0.7331 µg/L	-0.7331 ppb	15:58:55
3	S 181.975 Axial†	100.3	11.1	9.0775 µg/L	9.0775 ppb	15:58:55
3	Sb 206.836†	82.3	2.9	0.3909 µg/L	0.3909 ppb	15:58:55
3	Se 196.026†	27.7	13.7	5.49 µg/L	5.49 ppb	15:58:55
3	SiO2†	1706.2	-73.4	-7.8720 µg/L	-7.8720 ppb	15:58:55
3	Si 251.611†	625.5	-332.9	-5.3961 µg/L	-5.3961 ppb	15:58:35
3	Sn 189.927†	-0.2	2.4	0.1627 µg/L	0.1627 ppb	15:58:55
3	Ti 334.940†	859.2	-39.7	-0.0422 µg/L	-0.0422 ppb	15:58:35
3	Tl 190.801†	-110.1	8.7	1.1743 µg/L	1.1743 ppb	15:58:55
3	U 409.014†	-196.3	90.5	5.6852 µg/L	5.6852 ppb	15:58:35
3	V 292.402†	371.6	56.0	0.3070 µg/L	0.3070 ppb	15:58:35
3	Zn 213.857†	538.8	5.9	0.0355 µg/L	0.0355 ppb	15:58:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783988.0	101.65	%	0.233				0.23%
Sc RADIAL	152236.5	103	%	1.1				1.05%
Y 371.029	1081212.8	101.61	%	0.305				0.30%
Ag 328.068†	-91.8	-0.3551	µg/L	0.54711	-0.3551	ppb	0.54711	154.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.9	1.6098	µg/L	2.90460	1.6098	ppb	2.90460	180.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.8	-0.2847	µg/L	1.32573	-0.2847	ppb	1.32573	465.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-8.7	-0.1421	µg/L	0.19630	-0.1421	ppb	0.19630	138.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.5	0.0155	µg/L	0.03030	0.0155	ppb	0.03030	196.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	4.1	0.0033	µg/L	0.02159	0.0033	ppb	0.02159	661.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-109.2	-6.5688	µg/L	0.91577	-6.5688	ppb	0.91577	13.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.5	0.0585	µg/L	0.10659	0.0585	ppb	0.10659	182.23%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.9	-0.0389	µg/L	0.16924	-0.0389	ppb	0.16924	435.19%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.3     -0.0031 µg/L       0.09209     -0.0031 ppb        0.09209 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               18.1      0.0817 µg/L       0.34488      0.0817 ppb        0.34488 421.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        12.7      0.8517 µg/L       0.68511      0.8517 ppb        0.68511  80.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        165.3      68.022 µg/L       25.3917      68.022 ppb        25.3917  37.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.4     -4.2595 µg/L       2.80607     -4.2595 ppb        2.80607  65.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                9.0      0.0122 µg/L       0.00674      0.0122 ppb        0.00674  55.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.3      0.2953 µg/L       0.21192      0.2953 ppb        0.21192  71.77%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       297.7      45.141 µg/L       13.9213      45.141 ppb        13.9213  30.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               20.5      0.2578 µg/L       0.07467      0.2578 ppb        0.07467  28.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 7.7      1.8239 µg/L       4.21694      1.8239 ppb        4.21694 231.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -15.6     -0.9591 µg/L       0.45107     -0.9591 ppb        0.45107  47.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.8      2.3112 µg/L       6.53963      2.3112 ppb        6.53963 282.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.2      0.6902 µg/L       0.43831      0.6902 ppb        0.43831  63.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.9       0.365 µg/L        4.5653       0.365 ppb         4.5653 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -73.2     -7.8464 µg/L       1.90075     -7.8464 ppb        1.90075  24.22%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -253.7     -4.1124 µg/L       1.56225     -4.1124 ppb        1.56225  37.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      0.3736 µg/L       0.32709      0.3736 ppb        0.32709  87.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               63.7      0.1470 µg/L       0.03582      0.1470 ppb        0.03582  24.37%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -85.6     -0.0883 µg/L       0.04118     -0.0883 ppb        0.04118  46.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.8313 µg/L       0.82883      0.8313 ppb        0.82883  99.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               107.9      6.7652 µg/L       4.70490      6.7652 ppb        4.70490  69.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                19.4      0.1107 µg/L       0.52363      0.1107 ppb        0.52363 472.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                2.3      0.0126 µg/L       0.07813      0.0126 ppb        0.07813 619.86%
   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: 7
Date Collected: 3/30/2010 16:14:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	149150.0	149150.0	101	%			16:15:17
1	Al 396.153Radial†	25269.6	25108.8	5150.9	µg/L	5150.9	ppb	16:15:17
1	Ca 317.933Radial†	86235.0	84773.7	5100.6	µg/L	5100.6	ppb	16:15:17
1	Fe 238.204 Radial†	76185.8	75370.7	5071.6	µg/L	5071.6	ppb	16:15:17
1	K 766.490 Radial†	14043.6	12606.4	5184.2	µg/L	5184.2	ppb	16:15:17
1	Mg 279.077 IEC†	12863.8	12581.1	5168.9	µg/L	5168.9	ppb	16:15:17
1	Na 589.592 Radial†	68590.1	66776.4	10135	µg/L	10135	ppb	16:15:17
1	Sr 421.552†	226232.4	224451.5	517.74	µg/L	517.74	ppb	16:15:15
1	Sc 361.383	1743830.1	1743830.1	99.359	%			16:15:30
1	Y 371.029	1045853.2	1045853.2	98.290	%			16:15:30
1	Ag 328.068†	129026.3	126411.4	508.82	µg/L	508.82	ppb	16:15:30
1	As 188.979†	1380.4	1407.0	498.27	µg/L	498.27	ppb	16:15:50
1	B 249.677†	33705.9	30692.9	498.66	µg/L	498.66	ppb	16:15:30
1	Ba 233.527†	115037.9	115942.0	505.24	µg/L	505.24	ppb	16:15:30
1	Be 313.107†	1673671.2	1685251.5	505.91	µg/L	505.91	ppb	16:15:30
1	Cd 226.502†	72899.8	73480.1	504.22	µg/L	504.22	ppb	16:15:30
1	Co 228.616†	37152.7	37564.8	508.33	µg/L	508.33	ppb	16:15:30
1	Cr 267.716†	59737.2	59944.0	504.93	µg/L	504.93	ppb	16:15:30
1	Cu 324.752†	121910.0	119907.4	506.85	µg/L	506.85	ppb	16:15:30
1	Mn 257.610†	377168.2	379425.3	506.93	µg/L	506.93	ppb	16:15:30
1	Mo 202.031†	15653.7	15789.4	502.71	µg/L	502.71	ppb	16:15:50
1	Ni 231.604†	39991.2	40327.0	507.22	µg/L	507.22	ppb	16:15:30
1	P 214.914†	10343.3	10405.0	2473.1	µg/L	2473.1	ppb	16:15:50
1	Pb 220.353†	8250.5	8206.7	504.09	µg/L	504.09	ppb	16:15:50
1	S 181.975 Axial†	1280.3	1200.9	988.62	µg/L	988.62	ppb	16:15:50
1	Sb 206.836†	3859.6	3806.5	500.20	µg/L	500.20	ppb	16:15:50
1	Se 196.026†	1249.2	1243.7	500	µg/L	500	ppb	16:15:50
1	SiO2†	51956.5	50538.4	5385.4	µg/L	5385.4	ppb	16:15:30
1	Si 251.611†	156244.0	156303.0	2520.0	µg/L	2520.0	ppb	16:15:30
1	Sn 189.927†	7115.0	7163.4	497.64	µg/L	497.64	ppb	16:15:50
1	Ti 334.940†	504315.4	506682.5	506.96	µg/L	506.96	ppb	16:15:30
1	Tl 190.801†	3596.9	3737.2	509.85	µg/L	509.85	ppb	16:15:50
1	U 409.014†	7486.7	7818.7	520.48	µg/L	520.48	ppb	16:15:30
1	V 292.402†	94549.0	94848.9	510.27	µg/L	510.27	ppb	16:15:30
1	Zn 213.857†	81765.0	81767.8	503.15	µg/L	503.15	ppb	16:15:30
2	Sc RADIAL	149765.3	149765.3	101	%			16:15:21
2	Al 396.153Radial†	25441.5	25175.6	5164.4	µg/L	5164.4	ppb	16:15:21
2	Ca 317.933Radial†	86840.7	85020.4	5115.5	µg/L	5115.5	ppb	16:15:21
2	Fe 238.204 Radial†	76775.6	75642.7	5089.9	µg/L	5089.9	ppb	16:15:21
2	K 766.490 Radial†	14122.8	12627.5	5192.8	µg/L	5192.8	ppb	16:15:21
2	Mg 279.077 IEC†	13015.9	12678.9	5209.2	µg/L	5209.2	ppb	16:15:21
2	Na 589.592 Radial†	68934.4	66836.9	10144	µg/L	10144	ppb	16:15:21
2	Sr 421.552†	225922.3	223224.2	514.90	µg/L	514.90	ppb	16:15:19
2	Sc 361.383	1730132.7	1730132.7	98.579	%			16:15:53
2	Y 371.029	1036374.9	1036374.9	97.400	%			16:15:53
2	Ag 328.068†	128093.5	126493.2	509.15	µg/L	509.15	ppb	16:15:53
2	As 188.979†	1394.4	1432.2	507.08	µg/L	507.08	ppb	16:16:13
2	B 249.677†	33578.7	30832.5	500.93	µg/L	500.93	ppb	16:15:53
2	Ba 233.527†	114507.8	116320.9	506.89	µg/L	506.89	ppb	16:15:53
2	Be 313.107†	1660528.3	1685255.0	505.90	µg/L	505.90	ppb	16:15:53
2	Cd 226.502†	72288.3	73440.5	503.95	µg/L	503.95	ppb	16:15:53
2	Co 228.616†	36888.2	37592.4	508.70	µg/L	508.70	ppb	16:15:53
2	Cr 267.716†	59261.1	59936.9	504.88	µg/L	504.88	ppb	16:15:53
2	Cu 324.752†	120688.4	119639.5	505.72	µg/L	505.72	ppb	16:15:53
2	Mn 257.610†	374567.3	379792.1	507.42	µg/L	507.42	ppb	16:15:53
2	Mo 202.031†	15682.3	15943.1	507.60	µg/L	507.60	ppb	16:16:13
2	Ni 231.604†	39635.9	40285.2	506.70	µg/L	506.70	ppb	16:15:53
2	P 214.914†	10438.2	10583.7	2515.7	µg/L	2515.7	ppb	16:16:13
2	Pb 220.353†	8260.4	8282.6	508.75	µg/L	508.75	ppb	16:16:13

2	S 181.975 Axial†	1292.4	1223.3	1007.1 µg/L	1007.1 ppb	16:16:13
2	Sb 206.836†	3885.2	3863.2	507.73 µg/L	507.73 ppb	16:16:13
2	Se 196.026†	1263.8	1268.5	510 µg/L	510 ppb	16:16:13
2	SiO2†	51585.6	50576.2	5389.2 µg/L	5389.2 ppb	16:15:53
2	Si 251.611†	155023.4	156309.8	2520.0 µg/L	2520.0 ppb	16:15:53
2	Sn 189.927†	7177.9	7284.0	505.99 µg/L	505.99 ppb	16:16:13
2	Ti 334.940†	500412.6	506741.9	507.01 µg/L	507.01 ppb	16:15:53
2	Tl 190.801†	3606.0	3775.0	514.95 µg/L	514.95 ppb	16:16:13
2	U 409.014†	7358.1	7747.9	516.08 µg/L	516.08 ppb	16:15:53
2	V 292.402†	93924.9	94969.3	510.96 µg/L	510.96 ppb	16:15:53
2	Zn 213.857†	80946.3	81588.8	502.04 µg/L	502.04 ppb	16:15:53
3	Sc RADIAL	149946.8	149946.8	101 %		16:15:25
3	Al 396.153Radial†	25414.1	25118.2	5152.4 µg/L	5152.4 ppb	16:15:25
3	Ca 317.933Radial†	86403.6	84485.8	5083.3 µg/L	5083.3 ppb	16:15:25
3	Fe 238.204 Radial†	76499.4	75278.7	5065.4 µg/L	5065.4 ppb	16:15:25
3	K 766.490 Radial†	13924.5	12415.1	5105.4 µg/L	5105.4 ppb	16:15:25
3	Mg 279.077 IEC†	12917.9	12566.7	5163.3 µg/L	5163.3 ppb	16:15:25
3	Na 589.592 Radial†	68643.3	66467.5	10088 µg/L	10088 ppb	16:15:25
3	Sr 421.552†	226189.9	223218.1	514.89 µg/L	514.89 ppb	16:15:23
3	Sc 361.383	1725431.7	1725431.7	98.311 %		16:16:16
3	Y 371.029	1034770.8	1034770.8	97.249 %		16:16:16
3	Ag 328.068†	128336.4	127094.3	511.56 µg/L	511.56 ppb	16:16:16
3	As 188.979†	1389.6	1431.2	506.75 µg/L	506.75 ppb	16:16:36
3	B 249.677†	33509.2	30854.7	501.29 µg/L	501.29 ppb	16:16:16
3	Ba 233.527†	114602.5	116733.7	508.69 µg/L	508.69 ppb	16:16:16
3	Be 313.107†	1661309.7	1690639.2	507.52 µg/L	507.52 ppb	16:16:16
3	Cd 226.502†	72576.2	73933.2	507.33 µg/L	507.33 ppb	16:16:16
3	Co 228.616†	37001.5	37809.7	511.64 µg/L	511.64 ppb	16:16:16
3	Cr 267.716†	59258.1	60097.7	506.23 µg/L	506.23 ppb	16:16:16
3	Cu 324.752†	120857.8	120145.4	507.86 µg/L	507.86 ppb	16:16:16
3	Mn 257.610†	375185.0	381455.7	509.64 µg/L	509.64 ppb	16:16:16
3	Mo 202.031†	15775.7	16081.5	512.00 µg/L	512.00 ppb	16:16:36
3	Ni 231.604†	39815.9	40577.9	510.38 µg/L	510.38 ppb	16:16:16
3	P 214.914†	10530.8	10706.7	2545.1 µg/L	2545.1 ppb	16:16:36
3	Pb 220.353†	8329.8	8376.0	514.48 µg/L	514.48 ppb	16:16:36
3	S 181.975 Axial†	1303.5	1238.2	1019.3 µg/L	1019.3 ppb	16:16:36
3	Sb 206.836†	3907.5	3896.6	512.17 µg/L	512.17 ppb	16:16:36
3	Se 196.026†	1269.8	1278.0	514 µg/L	514 ppb	16:16:36
3	SiO2†	51617.4	50751.2	5407.7 µg/L	5407.7 ppb	16:16:16
3	Si 251.611†	155063.4	156779.0	2527.5 µg/L	2527.5 ppb	16:16:16
3	Sn 189.927†	7252.3	7379.4	512.60 µg/L	512.60 ppb	16:16:36
3	Ti 334.940†	500784.6	508503.3	508.78 µg/L	508.78 ppb	16:16:16
3	Tl 190.801†	3630.7	3810.1	519.68 µg/L	519.68 ppb	16:16:36
3	U 409.014†	7461.6	7873.5	524.02 µg/L	524.02 ppb	16:16:16
3	V 292.402†	93864.9	95167.9	512.07 µg/L	512.07 ppb	16:16:16
3	Zn 213.857†	81102.7	81971.6	504.39 µg/L	504.39 ppb	16:16:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733131.5	98.750	%	0.5446				0.55%
Sc RADIAL	149620.7	101	%	0.3				0.28%
Y 371.029	1038999.7	97.646	%	0.5629				0.58%
Ag 328.068†	126666.3	509.84	µg/L	1.496	509.84	ppb	1.496	0.29%
QC value within limits for Ag 328.068 Recovery = 101.97%								
Al 396.153Radial†	25134.2	5155.9	µg/L	7.42	5155.9	ppb	7.42	0.14%
QC value within limits for Al 396.153Radial Recovery = 103.12%								
As 188.979†	1423.5	504.03	µg/L	4.990	504.03	ppb	4.990	0.99%
QC value within limits for As 188.979 Recovery = 100.81%								
B 249.677†	30793.4	500.29	µg/L	1.425	500.29	ppb	1.425	0.28%
QC value within limits for B 249.677 Recovery = 100.06%								
Ba 233.527†	116332.2	506.94	µg/L	1.726	506.94	ppb	1.726	0.34%
QC value within limits for Ba 233.527 Recovery = 101.39%								
Be 313.107†	1687048.6	506.44	µg/L	0.934	506.44	ppb	0.934	0.18%
QC value within limits for Be 313.107 Recovery = 101.29%								
Ca 317.933Radial†	84760.0	5099.8	µg/L	16.10	5099.8	ppb	16.10	0.32%
QC value within limits for Ca 317.933Radial Recovery = 102.00%								
Cd 226.502†	73617.9	505.17	µg/L	1.882	505.17	ppb	1.882	0.37%
QC value within limits for Cd 226.502 Recovery = 101.03%								
Co 228.616†	37655.6	509.56	µg/L	1.816	509.56	ppb	1.816	0.36%

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   QC value within limits for Co 228.616  Recovery = 101.91%
Cr 267.716†          59992.9      505.35 µg/L        0.763      505.35 ppb        0.763   0.15%
   QC value within limits for Cr 267.716  Recovery = 101.07%
Cu 324.752†         119897.4      506.81 µg/L        1.068      506.81 ppb        1.068   0.21%
   QC value within limits for Cu 324.752  Recovery = 101.36%
Fe 238.204 Radial†   75430.7      5075.6 µg/L        12.74      5075.6 ppb        12.74   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.51%
K 766.490 Radial†    12549.7      5160.8 µg/L        48.15      5160.8 ppb        48.15   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 103.22%
Mg 279.077 IEC†      12608.9      5180.5 µg/L        25.01      5180.5 ppb        25.01   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.61%
Mn 257.610†         380224.4      508.00 µg/L        1.447      508.00 ppb        1.447   0.28%
   QC value within limits for Mn 257.610  Recovery = 101.60%
Mo 202.031†          15938.0      507.44 µg/L        4.647      507.44 ppb        4.647   0.92%
   QC value within limits for Mo 202.031  Recovery = 101.49%
Na 589.592 Radial†   66693.6       10123 µg/L         30.0       10123 ppb         30.0   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 101.23%
Ni 231.604†          40396.7      508.10 µg/L        1.991      508.10 ppb        1.991   0.39%
   QC value within limits for Ni 231.604  Recovery = 101.62%
P 214.914†           10565.1      2511.3 µg/L        36.21      2511.3 ppb        36.21   1.44%
   QC value within limits for P 214.914  Recovery = 100.45%
Pb 220.353†           8288.4      509.11 µg/L        5.203      509.11 ppb        5.203   1.02%
   QC value within limits for Pb 220.353  Recovery = 101.82%
S 181.975 Axial†      1220.8      1005.0 µg/L        15.45      1005.0 ppb        15.45   1.54%
   QC value within limits for S 181.975 Axial  Recovery = 100.50%
Sb 206.836†           3855.4      506.70 µg/L        6.046      506.70 ppb        6.046   1.19%
   QC value within limits for Sb 206.836  Recovery = 101.34%
Se 196.026†           1263.4         508 µg/L          7.1         508 ppb          7.1   1.40%
   QC value within limits for Se 196.026  Recovery = 101.59%
SiO2†                50621.9      5394.1 µg/L        11.92      5394.1 ppb        11.92   0.22%
   QC value within limits for SiO2  Recovery = 100.87%
Si 251.611†         156464.0      2522.5 µg/L         4.32      2522.5 ppb         4.32   0.17%
   QC value within limits for Si 251.611  Recovery = 100.90%
Sn 189.927†           7275.6      505.41 µg/L        7.497      505.41 ppb        7.497   1.48%
   QC value within limits for Sn 189.927  Recovery = 101.08%
Sr 421.552†         223631.3      515.84 µg/L        1.639      515.84 ppb        1.639   0.32%
   QC value within limits for Sr 421.552  Recovery = 103.17%
Ti 334.940†         507309.2      507.58 µg/L        1.036      507.58 ppb        1.036   0.20%
   QC value within limits for Ti 334.940  Recovery = 101.52%
Tl 190.801†           3774.1      514.82 µg/L        4.916      514.82 ppb        4.916   0.95%
   QC value within limits for Tl 190.801  Recovery = 102.96%
U 409.014†            7813.4      520.19 µg/L        3.979      520.19 ppb        3.979   0.76%
   QC value within limits for U 409.014  Recovery = 104.04%
V 292.402†           94995.4      511.10 µg/L        0.907      511.10 ppb        0.907   0.18%
   QC value within limits for V 292.402  Recovery = 102.22%
Zn 213.857†          81776.1      503.20 µg/L        1.177      503.20 ppb        1.177   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 16:16:44
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	152510.8	152510.8	103	%			16:17:13
1	Al 396.153Radial†	-68.3	-3.3	-0.6778	µg/L	-0.6778	ppb	16:17:33
1	Ca 317.933Radial†	643.7	-74.0	-4.4537	µg/L	-4.4537	ppb	16:17:33
1	Fe 238.204 Radial†	170.7	24.8	1.6683	µg/L	1.6683	ppb	16:17:33
1	K 766.490 Radial†	1615.7	253.3	104.22	µg/L	104.22	ppb	16:17:13
1	Mg 279.077 IEC†	181.7	7.3	3.0013	µg/L	3.0013	ppb	16:17:33
1	Na 589.592 Radial†	1660.0	402.4	61.015	µg/L	61.015	ppb	16:17:13
1	Sr 421.552†	-303.7	-72.7	-0.1677	µg/L	-0.1677	ppb	16:17:13
1	Sc 361.383	1759072.3	1759072.3	100.23	%			16:18:35
1	Y 371.029	1067700.7	1067700.7	100.34	%			16:18:35
1	Ag 328.068†	3299.8	-154.8	-0.6092	µg/L	-0.6092	ppb	16:18:37
1	As 188.979†	-9.7	8.0	2.7973	µg/L	2.7973	ppb	16:18:57
1	B 249.677†	3239.6	1.9	0.0316	µg/L	0.0316	ppb	16:18:57
1	Ba 233.527†	-126.7	35.8	0.1559	µg/L	0.1559	ppb	16:18:57
1	Be 313.107†	-608.6	178.4	0.0540	µg/L	0.0540	ppb	16:18:37
1	Cd 226.502†	-84.9	25.3	0.1738	µg/L	0.1738	ppb	16:18:57
1	Co 228.616†	-181.9	-9.1	-0.1227	µg/L	-0.1227	ppb	16:18:57
1	Cr 267.716†	197.4	18.4	0.1538	µg/L	0.1538	ppb	16:18:57
1	Cu 324.752†	2726.7	-68.4	-0.2868	µg/L	-0.2868	ppb	16:18:37
1	Mn 257.610†	182.0	6.0	0.0078	µg/L	0.0078	ppb	16:18:57
1	Mo 202.031†	-34.1	0.7	0.0222	µg/L	0.0222	ppb	16:18:57
1	Ni 231.604†	-52.6	25.4	0.3196	µg/L	0.3196	ppb	16:18:57
1	P 214.914†	19.6	14.5	3.4755	µg/L	3.4755	ppb	16:18:57
1	Pb 220.353†	72.0	-25.1	-1.5369	µg/L	-1.5369	ppb	16:18:57
1	S 181.975 Axial†	79.9	-7.9	-6.5165	µg/L	-6.5165	ppb	16:18:57
1	Sb 206.836†	94.4	16.1	2.1104	µg/L	2.1104	ppb	16:18:57
1	Se 196.026†	15.5	1.9	0.753	µg/L	0.753	ppb	16:18:57
1	SiO2†	1694.7	-62.3	-6.6745	µg/L	-6.6745	ppb	16:18:57
1	Si 251.611†	776.4	-174.1	-2.8231	µg/L	-2.8231	ppb	16:18:57
1	Sn 189.927†	9.6	12.1	0.8404	µg/L	0.8404	ppb	16:18:57
1	Ti 334.940†	742.0	-145.3	-0.1466	µg/L	-0.1466	ppb	16:18:37
1	Tl 190.801†	-106.0	11.3	1.5216	µg/L	1.5216	ppb	16:18:57
1	U 409.014†	-258.8	25.5	1.6179	µg/L	1.6179	ppb	16:18:37
1	V 292.402†	373.2	62.5	0.3338	µg/L	0.3338	ppb	16:18:37
1	Zn 213.857†	535.1	9.3	0.0558	µg/L	0.0558	ppb	16:18:57
2	Sc RADIAL	151582.4	151582.4	103	%			16:17:35
2	Al 396.153Radial†	-55.1	9.1	1.8727	µg/L	1.8727	ppb	16:17:55
2	Ca 317.933Radial†	630.1	-83.4	-5.0209	µg/L	-5.0209	ppb	16:17:55
2	Fe 238.204 Radial†	171.5	26.6	1.7868	µg/L	1.7868	ppb	16:17:55
2	K 766.490 Radial†	1635.4	282.1	116.08	µg/L	116.08	ppb	16:17:35
2	Mg 279.077 IEC†	165.2	-7.7	-3.1386	µg/L	-3.1386	ppb	16:17:55
2	Na 589.592 Radial†	1719.4	470.2	71.292	µg/L	71.292	ppb	16:17:35
2	Sr 421.552†	-209.5	17.3	0.0401	µg/L	0.0401	ppb	16:17:35
2	Sc 361.383	1753832.5	1753832.5	99.929	%			16:18:59
2	Y 371.029	1063469.2	1063469.2	99.946	%			16:18:59
2	Ag 328.068†	3412.7	-31.9	-0.1532	µg/L	-0.1532	ppb	16:19:02
2	As 188.979†	-15.2	2.5	0.8643	µg/L	0.8643	ppb	16:19:22
2	B 249.677†	3187.6	-40.5	-0.6608	µg/L	-0.6608	ppb	16:19:22
2	Ba 233.527†	-166.9	-4.9	-0.0217	µg/L	-0.0217	ppb	16:19:22
2	Be 313.107†	-546.6	238.6	0.0668	µg/L	0.0668	ppb	16:19:02
2	Cd 226.502†	-96.9	13.0	0.0892	µg/L	0.0892	ppb	16:19:22
2	Co 228.616†	-157.9	14.5	0.1955	µg/L	0.1955	ppb	16:19:22
2	Cr 267.716†	176.0	-2.5	-0.0085	µg/L	-0.0085	ppb	16:19:22
2	Cu 324.752†	2780.5	-6.4	-0.0400	µg/L	-0.0400	ppb	16:19:02
2	Mn 257.610†	169.9	-5.6	-0.0073	µg/L	-0.0073	ppb	16:19:22
2	Mo 202.031†	-32.0	2.8	0.0877	µg/L	0.0877	ppb	16:19:22
2	Ni 231.604†	-73.4	4.5	0.0561	µg/L	0.0561	ppb	16:19:22
2	P 214.914†	-19.7	-24.7	-5.8854	µg/L	-5.8854	ppb	16:19:22
2	Pb 220.353†	88.9	-8.0	-0.4789	µg/L	-0.4789	ppb	16:19:22

2	S 181.975 Axial†	82.2	-5.4	-4.4658 µg/L	-4.4658 ppb	16:19:22
2	Sb 206.836†	74.7	-3.3	-0.4337 µg/L	-0.4337 ppb	16:19:22
2	Se 196.026†	28.8	15.3	6.10 µg/L	6.10 ppb	16:19:22
2	SiO2†	1697.3	-54.7	-5.8600 µg/L	-5.8600 ppb	16:19:22
2	Si 251.611†	778.3	-169.8	-2.7541 µg/L	-2.7541 ppb	16:19:22
2	Sn 189.927†	8.2	10.7	0.7420 µg/L	0.7420 ppb	16:19:22
2	Ti 334.940†	832.1	-52.8	-0.0463 µg/L	-0.0463 ppb	16:19:02
2	Tl 190.801†	-117.4	-0.4	-0.0659 µg/L	-0.0659 ppb	16:19:22
2	U 409.014†	-537.9	-254.5	-15.974 µg/L	-15.974 ppb	16:19:02
2	V 292.402†	201.3	-108.4	-0.5855 µg/L	-0.5855 ppb	16:19:02
2	Zn 213.857†	517.9	-6.3	-0.0395 µg/L	-0.0395 ppb	16:19:22
3	Sc RADIAL	150090.6	150090.6	102 %		16:17:57
3	Al 396.153Radial†	-27.8	35.5	7.2924 µg/L	7.2924 ppb	16:18:17
3	Ca 317.933Radial†	602.3	-104.7	-6.3004 µg/L	-6.3004 ppb	16:18:17
3	Fe 238.204 Radial†	165.7	22.5	1.5162 µg/L	1.5162 ppb	16:18:17
3	K 766.490 Radial†	1500.0	164.6	67.743 µg/L	67.743 ppb	16:17:57
3	Mg 279.077 IEC†	180.4	8.9	3.6518 µg/L	3.6518 ppb	16:18:17
3	Na 589.592 Radial†	1423.7	195.7	29.652 µg/L	29.652 ppb	16:17:57
3	Sr 421.552†	-280.9	-55.0	-0.1268 µg/L	-0.1268 ppb	16:17:57
3	Sc 361.383	1757181.1	1757181.1	100.12 %		16:19:24
3	Y 371.029	1066334.2	1066334.2	100.22 %		16:19:24
3	Ag 328.068†	3335.3	-115.8	-0.4663 µg/L	-0.4663 ppb	16:19:26
3	As 188.979†	-22.6	-4.9	-1.6980 µg/L	-1.6980 ppb	16:19:46
3	B 249.677†	3210.1	-24.1	-0.3941 µg/L	-0.3941 ppb	16:19:46
3	Ba 233.527†	-133.3	29.1	0.1267 µg/L	0.1267 ppb	16:19:46
3	Be 313.107†	-716.2	70.2	0.0188 µg/L	0.0188 ppb	16:19:26
3	Cd 226.502†	-95.4	14.7	0.1010 µg/L	0.1010 ppb	16:19:46
3	Co 228.616†	-145.4	27.2	0.3675 µg/L	0.3675 ppb	16:19:46
3	Cr 267.716†	174.6	-4.2	-0.0294 µg/L	-0.0294 ppb	16:19:46
3	Cu 324.752†	2840.0	47.7	0.1953 µg/L	0.1953 ppb	16:19:26
3	Mn 257.610†	201.4	25.5	0.0340 µg/L	0.0340 ppb	16:19:46
3	Mo 202.031†	-24.7	10.1	0.3221 µg/L	0.3221 ppb	16:19:46
3	Ni 231.604†	-54.3	23.6	0.2973 µg/L	0.2973 ppb	16:19:46
3	P 214.914†	-12.8	-17.8	-4.2554 µg/L	-4.2554 ppb	16:19:46
3	Pb 220.353†	63.7	-33.3	-2.0332 µg/L	-2.0332 ppb	16:19:46
3	S 181.975 Axial†	86.2	-1.6	-1.2766 µg/L	-1.2766 ppb	16:19:46
3	Sb 206.836†	86.5	8.3	1.0959 µg/L	1.0959 ppb	16:19:46
3	Se 196.026†	16.3	2.7	1.07 µg/L	1.07 ppb	16:19:46
3	SiO2†	1672.5	-82.6	-8.8396 µg/L	-8.8396 ppb	16:19:46
3	Si 251.611†	786.6	-163.0	-2.6400 µg/L	-2.6400 ppb	16:19:46
3	Sn 189.927†	-9.1	-6.5	-0.4517 µg/L	-0.4517 ppb	16:19:46
3	Ti 334.940†	893.3	6.7	0.0093 µg/L	0.0093 ppb	16:19:26
3	Tl 190.801†	-122.2	-5.0	-0.6666 µg/L	-0.6666 ppb	16:19:46
3	U 409.014†	-403.6	-119.4	-7.4646 µg/L	-7.4646 ppb	16:19:26
3	V 292.402†	355.2	44.9	0.2363 µg/L	0.2363 ppb	16:19:26
3	Zn 213.857†	535.3	10.1	0.0605 µg/L	0.0605 ppb	16:19:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1756695.3	100.09	%	0.151				0.15%
Sc RADIAL	151394.6	102	%	0.8				0.81%
Y 371.029	1065834.7	100.17	%	0.203				0.20%
Ag 328.068†	-100.8	-0.4096	µg/L	0.23321	-0.4096	ppb	0.23321	56.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.8	2.8291	µg/L	4.07026	2.8291	ppb	4.07026	143.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	0.6545	µg/L	2.25498	0.6545	ppb	2.25498	344.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.9	-0.3411	µg/L	0.34923	-0.3411	ppb	0.34923	102.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.0	0.0870	µg/L	0.09526	0.0870	ppb	0.09526	109.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	162.4	0.0465	µg/L	0.02485	0.0465	ppb	0.02485	53.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-87.4	-5.2583	µg/L	0.94599	-5.2583	ppb	0.94599	17.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1213	µg/L	0.04585	0.1213	ppb	0.04585	37.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.9	0.1468	µg/L	0.24872	0.1468	ppb	0.24872	169.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.9      0.0386 µg/L       0.10032      0.0386 ppb        0.10032 259.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -9.1     -0.0438 µg/L       0.24105     -0.0438 ppb        0.24105 550.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         24.6      1.6571 µg/L       0.13567      1.6571 ppb        0.13567   8.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         233.3      96.014 µg/L       25.1904      96.014 ppb        25.1904  26.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.9      1.1715 µg/L       3.74683      1.1715 ppb        3.74683 319.83%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 8.6      0.0115 µg/L       0.02091      0.0115 ppb        0.02091 181.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.5      0.1440 µg/L       0.15766      0.1440 ppb        0.15766 109.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        356.1      53.987 µg/L       21.6918      53.987 ppb        21.6918  40.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                17.8      0.2244 µg/L       0.14611      0.2244 ppb        0.14611  65.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.3     -2.2218 µg/L       5.00083     -2.2218 ppb        5.00083 225.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -22.1     -1.3497 µg/L       0.79388     -1.3497 ppb        0.79388  58.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.0     -4.0863 µg/L       2.64049     -4.0863 ppb        2.64049  64.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.0      0.9242 µg/L       1.28071      0.9242 ppb        1.28071 138.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.6         2.64 µg/L         3.002         2.64 ppb          3.002 113.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -66.5     -7.1247 µg/L       1.53996     -7.1247 ppb        1.53996  21.61%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -168.9     -2.7391 µg/L       0.09245     -2.7391 ppb        0.09245   3.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.4      0.3769 µg/L       0.71929      0.3769 ppb        0.71929 190.85%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -36.8     -0.0848 µg/L       0.11006     -0.0848 ppb        0.11006 129.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -63.8     -0.0612 µg/L       0.07902     -0.0612 ppb        0.07902 129.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.0      0.2630 µg/L       1.13061      0.2630 ppb        1.13061 429.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -116.1     -7.2736 µg/L       8.79754     -7.2736 ppb        8.79754 120.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -0.3     -0.0051 µg/L       0.50496     -0.0051 ppb        0.50496 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 4.4      0.0256 µg/L       0.05641      0.0256 ppb        0.05641 220.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 16:33:11
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	151139.0	151139.0	102	%			16:33:44
1	Al 396.153Radial†	25196.3	24707.6	5068.1	µg/L	5068.1	ppb	16:33:44
1	Ca 317.933Radial†	86402.3	83812.5	5042.8	µg/L	5042.8	ppb	16:33:44
1	Fe 238.204 Radial†	76395.7	74582.4	5018.6	µg/L	5018.6	ppb	16:33:44
1	K 766.490 Radial†	14135.0	12512.7	5145.6	µg/L	5145.6	ppb	16:33:44
1	Mg 279.077 IEC†	12839.4	12389.5	5090.4	µg/L	5090.4	ppb	16:33:44
1	Na 589.592 Radial†	68823.9	66110.4	10034	µg/L	10034	ppb	16:33:44
1	Sr 421.552†	226964.0	222216.3	512.58	µg/L	512.58	ppb	16:33:42
1	Sc 361.383	1738736.4	1738736.4	99.069	%			16:34:12
1	Y 371.029	1041662.6	1041662.6	97.897	%			16:34:12
1	Ag 328.068†	127423.7	125174.2	503.84	µg/L	503.84	ppb	16:34:12
1	As 188.979†	1389.7	1420.5	502.92	µg/L	502.92	ppb	16:34:32
1	B 249.677†	33453.0	30537.1	496.13	µg/L	496.13	ppb	16:34:12
1	Ba 233.527†	113987.1	115220.6	502.10	µg/L	502.10	ppb	16:34:12
1	Be 313.107†	1653159.2	1669481.5	501.17	µg/L	501.17	ppb	16:34:12
1	Cd 226.502†	72224.6	73013.4	501.02	µg/L	501.02	ppb	16:34:12
1	Co 228.616†	36766.5	37284.5	504.53	µg/L	504.53	ppb	16:34:12
1	Cr 267.716†	59072.0	59448.6	500.77	µg/L	500.77	ppb	16:34:12
1	Cu 324.752†	120311.3	118653.0	501.54	µg/L	501.54	ppb	16:34:12
1	Mn 257.610†	373179.3	376510.9	503.04	µg/L	503.04	ppb	16:34:12
1	Mo 202.031†	15677.5	15859.6	504.94	µg/L	504.94	ppb	16:34:32
1	Ni 231.604†	39543.7	39993.2	503.02	µg/L	503.02	ppb	16:34:12
1	P 214.914†	10442.2	10535.4	2504.3	µg/L	2504.3	ppb	16:34:32
1	Pb 220.353†	8280.1	8260.9	507.41	µg/L	507.41	ppb	16:34:32
1	S 181.975 Axial†	1296.7	1221.2	1005.3	µg/L	1005.3	ppb	16:34:32
1	Sb 206.836†	3864.6	3822.8	502.45	µg/L	502.45	ppb	16:34:32
1	Se 196.026†	1254.0	1252.2	503	µg/L	503	ppb	16:34:32
1	SiO2†	51275.4	50004.2	5328.1	µg/L	5328.1	ppb	16:34:12
1	Si 251.611†	154864.0	155370.8	2504.8	µg/L	2504.8	ppb	16:34:12
1	Sn 189.927†	7172.7	7242.6	503.11	µg/L	503.11	ppb	16:34:32
1	Ti 334.940†	498220.5	502017.3	502.29	µg/L	502.29	ppb	16:34:12
1	Tl 190.801†	3613.1	3764.1	513.40	µg/L	513.40	ppb	16:34:32
1	U 409.014†	7323.5	7676.1	511.26	µg/L	511.26	ppb	16:34:12
1	V 292.402†	93382.5	93950.3	505.51	µg/L	505.51	ppb	16:34:12
1	Zn 213.857†	80909.7	81145.6	499.32	µg/L	499.32	ppb	16:34:12
2	Sc RADIAL	148387.4	148387.4	100	%			16:33:48
2	Al 396.153Radial†	25003.7	24972.6	5122.4	µg/L	5122.4	ppb	16:33:48
2	Ca 317.933Radial†	85779.0	84758.7	5099.7	µg/L	5099.7	ppb	16:33:48
2	Fe 238.204 Radial†	75791.8	75366.3	5071.3	µg/L	5071.3	ppb	16:33:48
2	K 766.490 Radial†	14052.4	12686.8	5217.2	µg/L	5217.2	ppb	16:33:48
2	Mg 279.077 IEC†	12862.3	12645.2	5195.4	µg/L	5195.4	ppb	16:33:48
2	Na 589.592 Radial†	68425.7	66962.0	10163	µg/L	10163	ppb	16:33:48
2	Sr 421.552†	225755.6	225128.9	519.30	µg/L	519.30	ppb	16:33:46
2	Sc 361.383	1732689.3	1732689.3	98.724	%			16:34:35
2	Y 371.029	1037776.0	1037776.0	97.531	%			16:34:35
2	Ag 328.068†	127823.1	126027.7	507.26	µg/L	507.26	ppb	16:34:35
2	As 188.979†	1426.9	1463.0	517.81	µg/L	517.81	ppb	16:34:55
2	B 249.677†	33275.5	30475.1	495.12	µg/L	495.12	ppb	16:34:35
2	Ba 233.527†	113937.6	115572.0	503.63	µg/L	503.63	ppb	16:34:35
2	Be 313.107†	1651670.0	1673796.8	502.47	µg/L	502.47	ppb	16:34:35
2	Cd 226.502†	71981.5	73021.6	501.07	µg/L	501.07	ppb	16:34:35
2	Co 228.616†	36746.8	37394.0	506.02	µg/L	506.02	ppb	16:34:35
2	Cr 267.716†	59002.6	59586.4	501.92	µg/L	501.92	ppb	16:34:35
2	Cu 324.752†	120225.8	118990.3	502.99	µg/L	502.99	ppb	16:34:35
2	Mn 257.610†	372559.0	377197.3	503.95	µg/L	503.95	ppb	16:34:35
2	Mo 202.031†	15857.3	16096.9	512.49	µg/L	512.49	ppb	16:34:55
2	Ni 231.604†	39495.0	40083.2	504.16	µg/L	504.16	ppb	16:34:35
2	P 214.914†	10624.2	10756.4	2557.0	µg/L	2557.0	ppb	16:34:55
2	Pb 220.353†	8415.5	8427.3	517.61	µg/L	517.61	ppb	16:34:55

2	S 181.975 Axial†	1322.3	1251.7	1030.4 µg/L	1030.4 ppb	16:34:55
2	Sb 206.836†	3941.4	3914.2	514.54 µg/L	514.54 ppb	16:34:55
2	Se 196.026†	1272.2	1275.1	513 µg/L	513 ppb	16:34:55
2	SiO2†	51298.9	50208.6	5349.6 µg/L	5349.6 ppb	16:34:35
2	Si 251.611†	154113.0	155155.6	2501.2 µg/L	2501.2 ppb	16:34:35
2	Sn 189.927†	7288.6	7385.3	512.99 µg/L	512.99 ppb	16:34:55
2	Ti 334.940†	497492.0	503034.5	503.30 µg/L	503.30 ppb	16:34:35
2	Tl 190.801†	3651.1	3815.4	520.30 µg/L	520.30 ppb	16:34:55
2	U 409.014†	7472.3	7852.6	522.37 µg/L	522.37 ppb	16:34:35
2	V 292.402†	93254.4	94149.5	506.65 µg/L	506.65 ppb	16:34:35
2	Zn 213.857†	80620.4	81137.6	499.26 µg/L	499.26 ppb	16:34:35
3	Sc RADIAL	149756.5	149756.5	101 %		16:33:53
3	Al 396.153Radial†	25384.2	25120.5	5153.1 µg/L	5153.1 ppb	16:33:53
3	Ca 317.933Radial†	86609.2	84797.0	5102.0 µg/L	5102.0 ppb	16:33:53
3	Fe 238.204 Radial†	76492.1	75367.4	5071.4 µg/L	5071.4 ppb	16:33:53
3	K 766.490 Radial†	13940.1	12448.0	5118.9 µg/L	5118.9 ppb	16:33:53
3	Mg 279.077 IEC†	12945.8	12610.5	5181.1 µg/L	5181.1 ppb	16:33:53
3	Na 589.592 Radial†	68594.3	66505.2	10094 µg/L	10094 ppb	16:33:53
3	Sr 421.552†	224007.7	221347.5	510.58 µg/L	510.58 ppb	16:33:51
3	Sc 361.383	1751130.8	1751130.8	99.775 %		16:34:58
3	Y 371.029	1048597.3	1048597.3	98.548 %		16:34:58
3	Ag 328.068†	129529.0	126373.9	508.64 µg/L	508.64 ppb	16:34:58
3	As 188.979†	1411.3	1432.2	507.05 µg/L	507.05 ppb	16:35:18
3	B 249.677†	33887.0	30733.0	499.31 µg/L	499.31 ppb	16:34:58
3	Ba 233.527†	115619.9	116042.6	505.68 µg/L	505.68 ppb	16:34:58
3	Be 313.107†	1676617.7	1681181.9	504.68 µg/L	504.68 ppb	16:34:58
3	Cd 226.502†	73368.7	73644.1	505.35 µg/L	505.35 ppb	16:34:58
3	Co 228.616†	37328.7	37585.3	508.60 µg/L	508.60 ppb	16:34:58
3	Cr 267.716†	59733.8	59689.9	502.80 µg/L	502.80 ppb	16:34:58
3	Cu 324.752†	121792.3	119277.8	504.19 µg/L	504.19 ppb	16:34:58
3	Mn 257.610†	378088.5	378765.0	506.04 µg/L	506.04 ppb	16:34:58
3	Mo 202.031†	15858.6	15929.1	507.15 µg/L	507.15 ppb	16:35:18
3	Ni 231.604†	40204.0	40372.5	507.79 µg/L	507.79 ppb	16:34:58
3	P 214.914†	10611.8	10630.7	2527.0 µg/L	2527.0 ppb	16:35:18
3	Pb 220.353†	8416.7	8338.7	512.19 µg/L	512.19 ppb	16:35:18
3	S 181.975 Axial†	1321.9	1237.1	1018.4 µg/L	1018.4 ppb	16:35:18
3	Sb 206.836†	3931.6	3862.4	507.66 µg/L	507.66 ppb	16:35:18
3	Se 196.026†	1279.4	1268.7	510 µg/L	510 ppb	16:35:18
3	SiO2†	52016.0	50380.1	5368.1 µg/L	5368.1 ppb	16:34:58
3	Si 251.611†	156602.6	156006.9	2515.0 µg/L	2515.0 ppb	16:34:58
3	Sn 189.927†	7321.0	7340.0	509.86 µg/L	509.86 ppb	16:35:18
3	Ti 334.940†	504195.1	504445.9	504.72 µg/L	504.72 ppb	16:34:58
3	Tl 190.801†	3645.8	3771.1	514.37 µg/L	514.37 ppb	16:35:18
3	U 409.014†	7418.7	7719.2	514.12 µg/L	514.12 ppb	16:34:58
3	V 292.402†	94555.7	94459.0	508.23 µg/L	508.23 ppb	16:34:58
3	Zn 213.857†	81983.3	81643.6	502.38 µg/L	502.38 ppb	16:34:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1740852.2	99.189	%	0.5356				0.54%
Sc RADIAL	149761.0	101	%	0.9				0.92%
Y 371.029	1042678.6	97.992	%	0.5152				0.53%
Ag 328.068†	125858.6	506.58	µg/L	2.472	506.58	ppb	2.472	0.49%
QC value within limits for Ag 328.068 Recovery = 101.32%								
Al 396.153Radial†	24933.6	5114.5	µg/L	43.04	5114.5	ppb	43.04	0.84%
QC value within limits for Al 396.153Radial Recovery = 102.29%								
As 188.979†	1438.6	509.26	µg/L	7.683	509.26	ppb	7.683	1.51%
QC value within limits for As 188.979 Recovery = 101.85%								
B 249.677†	30581.7	496.85	µg/L	2.189	496.85	ppb	2.189	0.44%
QC value within limits for B 249.677 Recovery = 99.37%								
Ba 233.527†	115611.7	503.80	µg/L	1.797	503.80	ppb	1.797	0.36%
QC value within limits for Ba 233.527 Recovery = 100.76%								
Be 313.107†	1674820.1	502.77	µg/L	1.776	502.77	ppb	1.776	0.35%
QC value within limits for Be 313.107 Recovery = 100.55%								
Ca 317.933Radial†	84456.1	5081.5	µg/L	33.55	5081.5	ppb	33.55	0.66%
QC value within limits for Ca 317.933Radial Recovery = 101.63%								
Cd 226.502†	73226.4	502.48	µg/L	2.483	502.48	ppb	2.483	0.49%
QC value within limits for Cd 226.502 Recovery = 100.50%								
Co 228.616†	37421.3	506.38	µg/L	2.060	506.38	ppb	2.060	0.41%

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   QC value within limits for Co 228.616  Recovery = 101.28%
Cr 267.716†            59575.0      501.83 µg/L         1.019      501.83 ppb          1.019   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.37%
Cu 324.752†           118973.7      502.91 µg/L         1.326      502.91 ppb          1.326   0.26%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     75105.4      5053.7 µg/L        30.48      5053.7 ppb         30.48   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.07%
K 766.490 Radial†      12549.1      5160.6 µg/L        50.82      5160.6 ppb         50.82   0.98%
   QC value within limits for K 766.490 Radial  Recovery = 103.21%
Mg 279.077 IEC†        12548.4      5155.7 µg/L        56.94      5155.7 ppb         56.94   1.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.11%
Mn 257.610†           377491.1      504.34 µg/L         1.543      504.34 ppb          1.543   0.31%
   QC value within limits for Mn 257.610  Recovery = 100.87%
Mo 202.031†            15961.9      508.19 µg/L         3.883      508.19 ppb          3.883   0.76%
   QC value within limits for Mo 202.031  Recovery = 101.64%
Na 589.592 Radial†     66525.8       10097 µg/L         64.7       10097 ppb          64.7   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†            40149.6      504.99 µg/L         2.493      504.99 ppb          2.493   0.49%
   QC value within limits for Ni 231.604  Recovery = 101.00%
P 214.914†             10640.8      2529.4 µg/L        26.43      2529.4 ppb         26.43   1.05%
   QC value within limits for P 214.914  Recovery = 101.18%
Pb 220.353†             8342.3      512.41 µg/L         5.103      512.41 ppb          5.103   1.00%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1236.7      1018.0 µg/L        12.54      1018.0 ppb         12.54   1.23%
   QC value within limits for S 181.975 Axial  Recovery = 101.80%
Sb 206.836†             3866.5      508.21 µg/L         6.063      508.21 ppb          6.063   1.19%
   QC value within limits for Sb 206.836  Recovery = 101.64%
Se 196.026†             1265.3         509 µg/L         4.7           509 ppb          4.7   0.93%
   QC value within limits for Se 196.026  Recovery = 101.75%
SiO2†                  50197.6      5348.6 µg/L        20.05      5348.6 ppb         20.05   0.37%
   QC value within limits for SiO2  Recovery = 100.02%
Si 251.611†           155511.1      2507.0 µg/L         7.19      2507.0 ppb          7.19   0.29%
   QC value within limits for Si 251.611  Recovery = 100.28%
Sn 189.927†             7322.7      508.66 µg/L         5.051      508.66 ppb          5.051   0.99%
   QC value within limits for Sn 189.927  Recovery = 101.73%
Sr 421.552†           222897.6      514.15 µg/L         4.569      514.15 ppb          4.569   0.89%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           503165.9      503.44 µg/L         1.219      503.44 ppb          1.219   0.24%
   QC value within limits for Ti 334.940  Recovery = 100.69%
Tl 190.801†             3783.5      516.02 µg/L         3.736      516.02 ppb          3.736   0.72%
   QC value within limits for Tl 190.801  Recovery = 103.20%
U 409.014†              7749.3      515.92 µg/L         5.770      515.92 ppb          5.770   1.12%
   QC value within limits for U 409.014  Recovery = 103.18%
V 292.402†             94186.3      506.80 µg/L         1.369      506.80 ppb          1.369   0.27%
   QC value within limits for V 292.402  Recovery = 101.36%
Zn 213.857†            81308.9      500.32 µg/L         1.780      500.32 ppb          1.780   0.36%
   QC value within limits for Zn 213.857  Recovery = 100.06%
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 16:35:27
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	151878.1	151878.1	103	%			16:35:56
1	Al 396.153Radial†	-27.3	36.3	7.4811	µg/L	7.4811	ppb	16:36:16
1	Ca 317.933Radial†	686.6	-29.7	-1.7857	µg/L	-1.7857	ppb	16:36:16
1	Fe 238.204 Radial†	172.4	27.1	1.8263	µg/L	1.8263	ppb	16:36:16
1	K 766.490 Radial†	1493.5	140.9	57.964	µg/L	57.964	ppb	16:35:56
1	Mg 279.077 IEC†	188.2	14.4	5.9196	µg/L	5.9196	ppb	16:36:16
1	Na 589.592 Radial†	1596.6	347.4	52.696	µg/L	52.696	ppb	16:35:56
1	Sr 421.552†	-187.5	39.2	0.0904	µg/L	0.0904	ppb	16:35:56
1	Sc 361.383	1775966.4	1775966.4	101.19	%			16:37:18
1	Y 371.029	1075816.3	1075816.3	101.11	%			16:37:18
1	Ag 328.068†	3637.8	148.0	0.5819	µg/L	0.5819	ppb	16:37:20
1	As 188.979†	-2.5	15.2	5.2981	µg/L	5.2981	ppb	16:37:40
1	B 249.677†	3304.0	34.8	0.5663	µg/L	0.5663	ppb	16:37:40
1	Ba 233.527†	-170.2	-6.0	-0.0264	µg/L	-0.0264	ppb	16:37:40
1	Be 313.107†	-529.3	262.5	0.0783	µg/L	0.0783	ppb	16:37:20
1	Cd 226.502†	-78.1	32.8	0.2250	µg/L	0.2250	ppb	16:37:40
1	Co 228.616†	-156.5	17.7	0.2396	µg/L	0.2396	ppb	16:37:40
1	Cr 267.716†	134.1	-46.0	-0.3871	µg/L	-0.3871	ppb	16:37:40
1	Cu 324.752†	2726.1	-94.9	-0.4005	µg/L	-0.4005	ppb	16:37:20
1	Mn 257.610†	181.0	3.3	0.0042	µg/L	0.0042	ppb	16:37:40
1	Mo 202.031†	-31.8	3.4	0.1071	µg/L	0.1071	ppb	16:37:40
1	Ni 231.604†	-78.8	0.0	0.0002	µg/L	0.0002	ppb	16:37:40
1	P 214.914†	11.7	6.6	1.5795	µg/L	1.5795	ppb	16:37:40
1	Pb 220.353†	104.7	6.5	0.4021	µg/L	0.4021	ppb	16:37:40
1	S 181.975 Axial†	97.8	9.0	7.3534	µg/L	7.3534	ppb	16:37:40
1	Sb 206.836†	78.3	-0.7	-0.0809	µg/L	-0.0809	ppb	16:37:40
1	Se 196.026†	26.0	12.1	4.86	µg/L	4.86	ppb	16:37:40
1	SiO2†	1712.3	-61.0	-6.5292	µg/L	-6.5292	ppb	16:37:40
1	Si 251.611†	932.1	-27.5	-0.4477	µg/L	-0.4477	ppb	16:37:20
1	Sn 189.927†	-1.2	1.4	0.0971	µg/L	0.0971	ppb	16:37:40
1	Ti 334.940†	836.6	-58.8	-0.0587	µg/L	-0.0587	ppb	16:37:20
1	Tl 190.801†	-101.3	17.0	2.2738	µg/L	2.2738	ppb	16:37:40
1	U 409.014†	-310.8	-23.4	-1.4888	µg/L	-1.4888	ppb	16:37:20
1	V 292.402†	243.1	-69.6	-0.3711	µg/L	-0.3711	ppb	16:37:20
1	Zn 213.857†	533.2	2.3	0.0148	µg/L	0.0148	ppb	16:37:40
2	Sc RADIAL	150766.1	150766.1	102	%			16:36:18
2	Al 396.153Radial†	-29.1	34.4	7.0870	µg/L	7.0870	ppb	16:36:38
2	Ca 317.933Radial†	682.2	-29.1	-1.7514	µg/L	-1.7514	ppb	16:36:38
2	Fe 238.204 Radial†	166.3	22.4	1.5048	µg/L	1.5048	ppb	16:36:38
2	K 766.490 Radial†	1525.1	182.6	75.152	µg/L	75.152	ppb	16:36:18
2	Mg 279.077 IEC†	179.6	7.3	2.9938	µg/L	2.9938	ppb	16:36:38
2	Na 589.592 Radial†	1371.5	138.2	20.914	µg/L	20.914	ppb	16:36:18
2	Sr 421.552†	-190.0	35.3	0.0815	µg/L	0.0815	ppb	16:36:18
2	Sc 361.383	1781472.1	1781472.1	101.50	%			16:37:42
2	Y 371.029	1078812.6	1078812.6	101.39	%			16:37:42
2	Ag 328.068†	3322.4	-173.9	-0.6936	µg/L	-0.6936	ppb	16:37:44
2	As 188.979†	-9.9	7.9	2.7584	µg/L	2.7584	ppb	16:38:05
2	B 249.677†	3225.9	-52.2	-0.8523	µg/L	-0.8523	ppb	16:38:05
2	Ba 233.527†	-165.6	-1.0	-0.0040	µg/L	-0.0040	ppb	16:38:05
2	Be 313.107†	-662.6	132.8	0.0378	µg/L	0.0378	ppb	16:37:44
2	Cd 226.502†	-107.6	4.0	0.0272	µg/L	0.0272	ppb	16:38:05
2	Co 228.616†	-153.4	21.3	0.2875	µg/L	0.2875	ppb	16:38:05
2	Cr 267.716†	167.4	-13.7	-0.1095	µg/L	-0.1095	ppb	16:38:05
2	Cu 324.752†	2776.0	-54.1	-0.2330	µg/L	-0.2330	ppb	16:37:44
2	Mn 257.610†	220.5	41.7	0.0556	µg/L	0.0556	ppb	16:38:05
2	Mo 202.031†	-36.8	-1.5	-0.0478	µg/L	-0.0478	ppb	16:38:05
2	Ni 231.604†	-80.5	-1.4	-0.0180	µg/L	-0.0180	ppb	16:38:05
2	P 214.914†	12.5	7.3	1.7603	µg/L	1.7603	ppb	16:38:05
2	Pb 220.353†	90.3	-8.0	-0.4821	µg/L	-0.4821	ppb	16:38:05

2	S 181.975 Axial†	91.8	2.7	2.2316 µg/L	2.2316 ppb	16:38:05
2	Sb 206.836†	83.6	4.3	0.5702 µg/L	0.5702 ppb	16:38:05
2	Se 196.026†	1.8	-11.8	-4.75 µg/L	-4.75 ppb	16:38:05
2	SiO2†	1691.8	-86.4	-9.2496 µg/L	-9.2496 ppb	16:38:05
2	Si 251.611†	787.2	-173.1	-2.8052 µg/L	-2.8052 ppb	16:37:44
2	Sn 189.927†	7.4	9.9	0.6835 µg/L	0.6835 ppb	16:38:05
2	Ti 334.940†	827.4	-70.5	-0.0680 µg/L	-0.0680 ppb	16:37:44
2	Tl 190.801†	-117.6	1.3	0.1723 µg/L	0.1723 ppb	16:38:05
2	U 409.014†	-399.5	-109.8	-6.8488 µg/L	-6.8488 ppb	16:37:44
2	V 292.402†	412.9	96.9	0.5089 µg/L	0.5089 ppb	16:37:44
2	Zn 213.857†	530.6	-1.8	-0.0109 µg/L	-0.0109 ppb	16:38:05
3	Sc RADIAL	151659.3	151659.3	103 %		16:36:40
3	Al 396.153Radial†	-28.3	35.3	7.2531 µg/L	7.2531 ppb	16:37:00
3	Ca 317.933Radial†	646.0	-68.3	-4.1086 µg/L	-4.1086 ppb	16:37:00
3	Fe 238.204 Radial†	199.0	53.3	3.5851 µg/L	3.5851 ppb	16:37:00
3	K 766.490 Radial†	1519.9	168.8	69.446 µg/L	69.446 ppb	16:36:40
3	Mg 279.077 IEC†	179.2	5.9	2.4278 µg/L	2.4278 ppb	16:37:00
3	Na 589.592 Radial†	1454.5	211.2	32.007 µg/L	32.007 ppb	16:36:40
3	Sr 421.552†	-167.3	58.5	0.1351 µg/L	0.1351 ppb	16:36:40
3	Sc 361.383	1777415.3	1777415.3	101.27 %		16:38:07
3	Y 371.029	1077075.4	1077075.4	101.22 %		16:38:07
3	Ag 328.068†	3547.2	55.6	0.2339 µg/L	0.2339 ppb	16:38:09
3	As 188.979†	-14.0	3.8	1.3299 µg/L	1.3299 ppb	16:38:29
3	B 249.677†	3244.0	-27.1	-0.4430 µg/L	-0.4430 ppb	16:38:29
3	Ba 233.527†	-186.1	-21.6	-0.0937 µg/L	-0.0937 ppb	16:38:29
3	Be 313.107†	-746.5	48.4	0.0159 µg/L	0.0159 ppb	16:38:09
3	Cd 226.502†	-82.7	28.3	0.1941 µg/L	0.1941 ppb	16:38:29
3	Co 228.616†	-162.0	12.5	0.1686 µg/L	0.1686 ppb	16:38:29
3	Cr 267.716†	143.6	-36.8	-0.3130 µg/L	-0.3130 ppb	16:38:29
3	Cu 324.752†	2855.6	30.7	0.1338 µg/L	0.1338 ppb	16:38:09
3	Mn 257.610†	204.7	26.6	0.0354 µg/L	0.0354 ppb	16:38:29
3	Mo 202.031†	-21.9	13.1	0.4182 µg/L	0.4182 ppb	16:38:29
3	Ni 231.604†	-69.6	9.2	0.1151 µg/L	0.1151 ppb	16:38:29
3	P 214.914†	1.4	-3.6	-0.8646 µg/L	-0.8646 ppb	16:38:29
3	Pb 220.353†	84.4	-13.6	-0.8367 µg/L	-0.8367 ppb	16:38:29
3	S 181.975 Axial†	90.3	1.5	1.2325 µg/L	1.2325 ppb	16:38:29
3	Sb 206.836†	80.7	1.6	0.2186 µg/L	0.2186 ppb	16:38:29
3	Se 196.026†	8.3	-5.3	-2.13 µg/L	-2.13 ppb	16:38:29
3	SiO2†	1696.0	-78.5	-8.4316 µg/L	-8.4316 ppb	16:38:29
3	Si 251.611†	738.0	-219.9	-3.5748 µg/L	-3.5748 ppb	16:38:09
3	Sn 189.927†	18.0	20.3	1.4069 µg/L	1.4069 ppb	16:38:29
3	Ti 334.940†	846.9	-49.3	-0.0514 µg/L	-0.0514 ppb	16:38:09
3	Tl 190.801†	-120.1	-1.5	-0.1973 µg/L	-0.1973 ppb	16:38:29
3	U 409.014†	-216.0	70.5	4.4517 µg/L	4.4517 ppb	16:38:09
3	V 292.402†	433.2	117.9	0.6318 µg/L	0.6318 ppb	16:38:09
3	Zn 213.857†	526.7	-4.5	-0.0291 µg/L	-0.0291 ppb	16:38:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778284.6	101.32	%	0.163				0.16%
Sc RADIAL	151434.5	102	%	0.4				0.39%
Y 371.029	1077234.8	101.24	%	0.141				0.14%
Ag 328.068†	9.9	0.0407	µg/L	0.65930	0.0407	ppb	0.65930	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	35.3	7.2737	µg/L	0.19788	7.2737	ppb	0.19788	2.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.0	3.1288	µg/L	2.00985	3.1288	ppb	2.00985	64.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.9	-0.2430	µg/L	0.73013	-0.2430	ppb	0.73013	300.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.5	-0.0414	µg/L	0.04672	-0.0414	ppb	0.04672	112.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	147.9	0.0440	µg/L	0.03169	0.0440	ppb	0.03169	72.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-42.4	-2.5486	µg/L	1.35112	-2.5486	ppb	1.35112	53.02%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.7	0.1488	µg/L	0.10645	0.1488	ppb	0.10645	71.55%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.2	0.2319	µg/L	0.05984	0.2319	ppb	0.05984	25.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -32.2     -0.2698 µg/L       0.14373     -0.2698 ppb        0.14373  53.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -39.4     -0.1666 µg/L       0.27327     -0.1666 ppb        0.27327 164.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        34.3      2.3054 µg/L       1.11984      2.3054 ppb        1.11984  48.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        164.1     67.521 µg/L        8.7540     67.521 ppb         8.7540  12.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           9.2      3.7804 µg/L       1.87409      3.7804 ppb        1.87409  49.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              23.9      0.0317 µg/L       0.02590      0.0317 ppb        0.02590  81.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.1592 µg/L       0.23731      0.1592 ppb        0.23731 149.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       232.2     35.206 µg/L       16.1307     35.206 ppb        16.1307  45.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.6      0.0324 µg/L       0.07220      0.0324 ppb        0.07220 222.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.4      0.8250 µg/L       1.46608      0.8250 ppb        1.46608 177.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.0     -0.3056 µg/L       0.63802     -0.3056 ppb        0.63802 208.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.4      3.6058 µg/L       3.28371      3.6058 ppb        3.28371  91.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.7      0.2360 µg/L       0.32585      0.2360 ppb        0.32585 138.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.7      -0.675 µg/L        4.9659      -0.675 ppb         4.9659 736.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -75.3     -8.0701 µg/L       1.39574     -8.0701 ppb        1.39574  17.30%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -140.2     -2.2759 µg/L       1.62935     -2.2759 ppb        1.62935  71.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.5      0.7292 µg/L       0.65610      0.7292 ppb        0.65610  89.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              44.3      0.1023 µg/L       0.02870      0.1023 ppb        0.02870  28.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -59.5     -0.0594 µg/L       0.00835     -0.0594 ppb        0.00835  14.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      0.7496 µg/L       1.33288      0.7496 ppb        1.33288 177.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.9     -1.2953 µg/L       5.65273     -1.2953 ppb        5.65273 436.40%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               48.4      0.2565 µg/L       0.54704      0.2565 ppb        0.54704 213.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -1.3     -0.0084 µg/L       0.02204     -0.0084 ppb        0.02204 262.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/30/2010 16:57:39 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033010.sif
Batch ID:
Results Data Set: 033010B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/30/2010 16:57:41**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149199.2	149199.2	101	%			16:58:14
1	Al 396.153Radial†	25133.4	24965.6	5121.0	µg/L	5121.0	ppb	16:58:14
1	Ca 317.933Radial†	86291.1	84801.1	5102.3	µg/L	5102.3	ppb	16:58:14
1	Fe 238.204 Radial†	76166.0	75326.2	5068.6	µg/L	5068.6	ppb	16:58:14
1	K 766.490 Radial†	13784.3	12344.9	5076.5	µg/L	5076.5	ppb	16:58:14
1	Mg 279.077 IEC†	13036.4	12747.9	5237.5	µg/L	5237.5	ppb	16:58:14
1	Na 589.592 Radial†	68524.1	66688.5	10122	µg/L	10122	ppb	16:58:14
1	Sr 421.552†	222273.3	220454.9	508.52	µg/L	508.52	ppb	16:58:12
1	Sc 361.383	1729437.6	1729437.6	98.539	%			16:58:26
1	Y 371.029	1036324.1	1036324.1	97.395	%			16:58:26
1	Ag 328.068†	127198.8	125637.5	505.71	µg/L	505.71	ppb	16:58:26
1	As 188.979†	1397.3	1435.7	508.27	µg/L	508.27	ppb	16:58:46
1	B 249.677†	33342.8	30606.8	497.26	µg/L	497.26	ppb	16:58:26
1	Ba 233.527†	113491.6	115336.4	502.60	µg/L	502.60	ppb	16:58:26
1	Be 313.107†	1652988.4	1678280.3	503.82	µg/L	503.82	ppb	16:58:26
1	Cd 226.502†	72383.9	73567.0	504.82	µg/L	504.82	ppb	16:58:26
1	Co 228.616†	36695.5	37411.9	506.26	µg/L	506.26	ppb	16:58:26
1	Cr 267.716†	58963.9	59659.5	502.53	µg/L	502.53	ppb	16:58:26
1	Cu 324.752†	119751.4	118737.8	501.93	µg/L	501.93	ppb	16:58:26
1	Mn 257.610†	372127.1	377468.5	504.31	µg/L	504.31	ppb	16:58:26
1	Mo 202.031†	15742.5	16010.6	509.75	µg/L	509.75	ppb	16:58:46
1	Ni 231.604†	39503.2	40166.7	505.21	µg/L	505.21	ppb	16:58:26
1	P 214.914†	10540.5	10691.7	2541.6	µg/L	2541.6	ppb	16:58:46
1	Pb 220.353†	8315.2	8341.5	512.35	µg/L	512.35	ppb	16:58:46
1	S 181.975 Axial†	1305.5	1237.2	1018.5	µg/L	1018.5	ppb	16:58:46
1	Sb 206.836†	3903.1	3882.9	510.37	µg/L	510.37	ppb	16:58:46
1	Se 196.026†	1270.8	1276.1	513	µg/L	513	ppb	16:58:46
1	SiO2†	51353.9	50362.1	5366.1	µg/L	5366.1	ppb	16:58:26
1	Si 251.611†	154170.2	155507.2	2506.9	µg/L	2506.9	ppb	16:58:26
1	Sn 189.927†	7252.0	7362.1	511.38	µg/L	511.38	ppb	16:58:46
1	Ti 334.940†	496039.9	502508.3	502.77	µg/L	502.77	ppb	16:58:26
1	Tl 190.801†	3625.2	3796.0	517.69	µg/L	517.69	ppb	16:58:46
1	U 409.014†	7556.6	7952.4	528.59	µg/L	528.59	ppb	16:58:26
1	V 292.402†	92970.0	94038.4	506.04	µg/L	506.04	ppb	16:58:26
1	Zn 213.857†	80596.8	81267.1	500.06	µg/L	500.06	ppb	16:58:26
2	Sc RADIAL	148989.5	148989.5	101	%			16:58:18
2	Al 396.153Radial†	25062.8	24930.6	5113.9	µg/L	5113.9	ppb	16:58:18
2	Ca 317.933Radial†	86125.4	84757.0	5099.6	µg/L	5099.6	ppb	16:58:18
2	Fe 238.204 Radial†	76239.8	75505.7	5080.7	µg/L	5080.7	ppb	16:58:18
2	K 766.490 Radial†	13841.1	12420.6	5107.7	µg/L	5107.7	ppb	16:58:18
2	Mg 279.077 IEC†	12962.5	12692.8	5214.9	µg/L	5214.9	ppb	16:58:18
2	Na 589.592 Radial†	68179.9	66442.6	10085	µg/L	10085	ppb	16:58:18
2	Sr 421.552†	224560.5	223034.3	514.47	µg/L	514.47	ppb	16:58:16
2	Sc 361.383	1722198.8	1722198.8	98.127	%			16:58:50
2	Y 371.029	1031025.1	1031025.1	96.897	%			16:58:50
2	Ag 328.068†	126600.1	125570.0	505.41	µg/L	505.41	ppb	16:58:50
2	As 188.979†	1403.2	1447.6	512.43	µg/L	512.43	ppb	16:59:10

2	B 249.677†	33328.8	30734.7	499.34 µg/L	499.34 ppb	16:58:50
2	Ba 233.527†	113413.5	115740.8	504.36 µg/L	504.36 ppb	16:58:50
2	Be 313.107†	1647320.5	1679555.1	504.19 µg/L	504.19 ppb	16:58:50
2	Cd 226.502†	72125.6	73612.6	505.13 µg/L	505.13 ppb	16:58:50
2	Co 228.616†	36642.3	37514.2	507.64 µg/L	507.64 ppb	16:58:50
2	Cr 267.716†	58539.2	59478.2	501.02 µg/L	501.02 ppb	16:58:50
2	Cu 324.752†	119171.5	118657.7	501.57 µg/L	501.57 ppb	16:58:50
2	Mn 257.610†	370900.9	377806.2	504.76 µg/L	504.76 ppb	16:58:50
2	Mo 202.031†	15642.4	15975.8	508.64 µg/L	508.64 ppb	16:59:10
2	Ni 231.604†	39353.6	40182.8	505.41 µg/L	505.41 ppb	16:58:50
2	P 214.914†	10458.6	10653.2	2532.4 µg/L	2532.4 ppb	16:59:10
2	Pb 220.353†	8291.2	8352.5	513.04 µg/L	513.04 ppb	16:59:10
2	S 181.975 Axial†	1304.5	1241.7	1022.1 µg/L	1022.1 ppb	16:59:10
2	Sb 206.836†	3865.5	3861.2	507.54 µg/L	507.54 ppb	16:59:10
2	Se 196.026†	1274.2	1284.9	517 µg/L	517 ppb	16:59:10
2	SiO2†	51206.2	50430.6	5373.5 µg/L	5373.5 ppb	16:58:50
2	Si 251.611†	154157.0	156151.3	2517.4 µg/L	2517.4 ppb	16:58:50
2	Sn 189.927†	7197.1	7337.0	509.65 µg/L	509.65 ppb	16:59:10
2	Ti 334.940†	494104.3	502651.7	502.92 µg/L	502.92 ppb	16:58:50
2	Tl 190.801†	3603.4	3789.3	516.79 µg/L	516.79 ppb	16:59:10
2	U 409.014†	7104.1	7523.4	501.74 µg/L	501.74 ppb	16:58:50
2	V 292.402†	92620.1	94078.5	506.21 µg/L	506.21 ppb	16:58:50
2	Zn 213.857†	80704.2	81720.3	502.87 µg/L	502.87 ppb	16:58:50
3	Sc RADIAL	150443.3	150443.3	102 %		16:58:22
3	Al 396.153Radial†	25179.7	24805.1	5087.6 µg/L	5087.6 ppb	16:58:22
3	Ca 317.933Radial†	86584.9	84382.8	5077.1 µg/L	5077.1 ppb	16:58:22
3	Fe 238.204 Radial†	76433.0	74964.6	5044.3 µg/L	5044.3 ppb	16:58:22
3	K 766.490 Radial†	13825.6	12272.6	5046.8 µg/L	5046.8 ppb	16:58:22
3	Mg 279.077 IEC†	12960.3	12566.4	5163.3 µg/L	5163.3 ppb	16:58:22
3	Na 589.592 Radial†	68734.3	66333.7	10068 µg/L	10068 ppb	16:58:22
3	Sr 421.552†	224638.4	220957.7	509.68 µg/L	509.68 ppb	16:58:20
3	Sc 361.383	1703789.7	1703789.7	97.078 %		16:59:13
3	Y 371.029	1020310.6	1020310.6	95.890 %		16:59:13
3	Ag 328.068†	125841.1	126182.1	507.85 µg/L	507.85 ppb	16:59:13
3	As 188.979†	1399.0	1458.8	516.35 µg/L	516.35 ppb	16:59:33
3	B 249.677†	32938.4	30699.6	498.77 µg/L	498.77 ppb	16:59:13
3	Ba 233.527†	112303.0	115845.7	504.83 µg/L	504.83 ppb	16:59:13
3	Be 313.107†	1628078.9	1677873.0	503.68 µg/L	503.68 ppb	16:59:13
3	Cd 226.502†	71318.3	73575.2	504.88 µg/L	504.88 ppb	16:59:13
3	Co 228.616†	36250.4	37514.0	507.64 µg/L	507.64 ppb	16:59:13
3	Cr 267.716†	58103.9	59674.4	502.68 µg/L	502.68 ppb	16:59:13
3	Cu 324.752†	118475.5	119252.9	504.07 µg/L	504.07 ppb	16:59:13
3	Mn 257.610†	367522.6	378410.2	505.57 µg/L	505.57 ppb	16:59:13
3	Mo 202.031†	15766.0	16275.3	518.16 µg/L	518.16 ppb	16:59:33
3	Ni 231.604†	39046.2	40299.5	506.88 µg/L	506.88 ppb	16:59:13
3	P 214.914†	10539.3	10851.5	2579.6 µg/L	2579.6 ppb	16:59:33
3	Pb 220.353†	8372.9	8528.0	523.81 µg/L	523.81 ppb	16:59:33
3	S 181.975 Axial†	1311.9	1263.7	1040.2 µg/L	1040.2 ppb	16:59:33
3	Sb 206.836†	3881.3	3920.0	515.38 µg/L	515.38 ppb	16:59:33
3	Se 196.026†	1263.3	1287.7	518 µg/L	518 ppb	16:59:33
3	SiO2†	50416.9	50181.4	5346.4 µg/L	5346.4 ppb	16:59:13
3	Si 251.611†	151913.4	155537.7	2507.2 µg/L	2507.2 ppb	16:59:13
3	Sn 189.927†	7245.0	7465.6	518.55 µg/L	518.55 ppb	16:59:33
3	Ti 334.940†	489941.5	503804.1	504.08 µg/L	504.08 ppb	16:59:13
3	Tl 190.801†	3643.4	3870.2	527.67 µg/L	527.67 ppb	16:59:33
3	U 409.014†	6984.8	7478.9	499.01 µg/L	499.01 ppb	16:59:13
3	V 292.402†	91797.2	94250.7	507.24 µg/L	507.24 ppb	16:59:13
3	Zn 213.857†	79534.1	81403.7	500.90 µg/L	500.90 ppb	16:59:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718475.4	97.915	%	0.7534				0.77%
Sc RADIAL	149544.0	101	%	0.5				0.53%
Y 371.029	1029219.9	96.727	%	0.7667				0.79%
Ag 328.068†	125796.5	506.32	µg/L	1.332	506.32	ppb	1.332	0.26%
QC value within limits for Ag 328.068 Recovery = 101.26%								
Al 396.153Radial†	24900.4	5107.5	µg/L	17.62	5107.5	ppb	17.62	0.34%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1447.4	512.35	µg/L	4.040	512.35	ppb	4.040	0.79%

```
   QC value within limits for As 188.979  Recovery = 102.47%
B 249.677†            30680.4      498.46 µg/L         1.075      498.46 ppb          1.075   0.22%
   QC value within limits for B 249.677  Recovery = 99.69%
Ba 233.527†          115641.0      503.93 µg/L         1.172      503.93 ppb          1.172   0.23%
   QC value within limits for Ba 233.527  Recovery = 100.79%
Be 313.107†         1678569.5      503.90 µg/L         0.262      503.90 ppb          0.262   0.05%
   QC value within limits for Be 313.107  Recovery = 100.78%
Ca 317.933Radial†      84647.0      5093.0 µg/L         13.83      5093.0 ppb          13.83   0.27%
   QC value within limits for Ca 317.933Radial  Recovery = 101.86%
Cd 226.502†            73584.9      504.94 µg/L         0.166      504.94 ppb          0.166   0.03%
   QC value within limits for Cd 226.502  Recovery = 100.99%
Co 228.616†            37480.1      507.18 µg/L         0.799      507.18 ppb          0.799   0.16%
   QC value within limits for Co 228.616  Recovery = 101.44%
Cr 267.716†            59604.0      502.08 µg/L         0.915      502.08 ppb          0.915   0.18%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†           118882.8      502.52 µg/L         1.352      502.52 ppb          1.352   0.27%
   QC value within limits for Cu 324.752  Recovery = 100.50%
Fe 238.204 Radial†     75265.5      5064.5 µg/L         18.55      5064.5 ppb          18.55   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.29%
K 766.490 Radial†      12346.1      5077.0 µg/L         30.44      5077.0 ppb          30.44   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 101.54%
Mg 279.077 IEC†        12669.1      5205.2 µg/L         38.04      5205.2 ppb          38.04   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.10%
Mn 257.610†           377895.0      504.88 µg/L         0.639      504.88 ppb          0.639   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.98%
Mo 202.031†            16087.2      512.18 µg/L         5.210      512.18 ppb          5.210   1.02%
   QC value within limits for Mo 202.031  Recovery = 102.44%
Na 589.592 Radial†     66488.3       10092 µg/L          27.6       10092 ppb           27.6   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 100.92%
Ni 231.604†            40216.3      505.83 µg/L         0.911      505.83 ppb          0.911   0.18%
   QC value within limits for Ni 231.604  Recovery = 101.17%
P 214.914†             10732.2      2551.2 µg/L         25.06      2551.2 ppb          25.06   0.98%
   QC value within limits for P 214.914  Recovery = 102.05%
Pb 220.353†             8407.3      516.40 µg/L         6.426      516.40 ppb          6.426   1.24%
   QC value within limits for Pb 220.353  Recovery = 103.28%
S 181.975 Axial†        1247.5      1026.9 µg/L         11.66      1026.9 ppb          11.66   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 102.69%
Sb 206.836†             3888.0      511.10 µg/L         3.970      511.10 ppb          3.970   0.78%
   QC value within limits for Sb 206.836  Recovery = 102.22%
Se 196.026†             1282.9         516 µg/L           2.4         516 ppb            2.4   0.47%
   QC value within limits for Se 196.026  Recovery = 103.15%
SiO2†                  50324.7      5362.0 µg/L         13.99      5362.0 ppb          13.99   0.26%
   QC value within limits for SiO2  Recovery = 100.27%
Si 251.611†           155732.1      2510.5 µg/L          5.94      2510.5 ppb           5.94   0.24%
   QC value within limits for Si 251.611  Recovery = 100.42%
Sn 189.927†             7388.2      513.19 µg/L         4.721      513.19 ppb          4.721   0.92%
   QC value within limits for Sn 189.927  Recovery = 102.64%
Sr 421.552†           221482.3      510.89 µg/L         3.154      510.89 ppb          3.154   0.62%
   QC value within limits for Sr 421.552  Recovery = 102.18%
Ti 334.940†           502988.1      503.26 µg/L         0.719      503.26 ppb          0.719   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.65%
Tl 190.801†             3818.5      520.72 µg/L         6.041      520.72 ppb          6.041   1.16%
   QC value within limits for Tl 190.801  Recovery = 104.14%
U 409.014†              7651.6      509.78 µg/L        16.349      509.78 ppb         16.349   3.21%
   QC value within limits for U 409.014  Recovery = 101.96%
V 292.402†             94122.5      506.50 µg/L         0.646      506.50 ppb          0.646   0.13%
   QC value within limits for V 292.402  Recovery = 101.30%
Zn 213.857†            81463.7      501.27 µg/L         1.442      501.27 ppb          1.442   0.29%
   QC value within limits for Zn 213.857  Recovery = 100.25%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 16:59:41
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	149825.5	149825.5	101	%			17:00:10
1	Al 396.153Radial†	-41.4	22.0	4.5262	µg/L	4.5262	ppb	17:00:30
1	Ca 317.933Radial†	670.9	-36.0	-2.1668	µg/L	-2.1668	ppb	17:00:30
1	Fe 238.204 Radial†	145.6	2.9	0.1962	µg/L	0.1962	ppb	17:00:30
1	K 766.490 Radial†	1426.9	95.1	39.120	µg/L	39.120	ppb	17:00:10
1	Mg 279.077 IEC†	176.4	5.2	2.1463	µg/L	2.1463	ppb	17:00:30
1	Na 589.592 Radial†	1352.8	128.1	19.422	µg/L	19.422	ppb	17:00:10
1	Sr 421.552†	-227.6	-3.0	-0.0068	µg/L	-0.0068	ppb	17:00:10
1	Sc 361.383	1764835.2	1764835.2	100.56	%			17:01:32
1	Y 371.029	1069900.1	1069900.1	100.55	%			17:01:32
1	Ag 328.068†	3768.3	300.4	1.1888	µg/L	1.1888	ppb	17:01:34
1	As 188.979†	-11.1	6.7	2.3224	µg/L	2.3224	ppb	17:01:54
1	B 249.677†	3263.2	14.8	0.2419	µg/L	0.2419	ppb	17:01:54
1	Ba 233.527†	-157.4	5.6	0.0243	µg/L	0.0243	ppb	17:01:54
1	Be 313.107†	-752.2	37.6	0.0106	µg/L	0.0106	ppb	17:01:34
1	Cd 226.502†	-106.0	4.6	0.0315	µg/L	0.0315	ppb	17:01:54
1	Co 228.616†	-180.5	-7.1	-0.0954	µg/L	-0.0954	ppb	17:01:54
1	Cr 267.716†	189.3	9.7	0.0836	µg/L	0.0836	ppb	17:01:54
1	Cu 324.752†	2837.6	32.9	0.1369	µg/L	0.1369	ppb	17:01:34
1	Mn 257.610†	168.5	-8.0	-0.0108	µg/L	-0.0108	ppb	17:01:54
1	Mo 202.031†	-27.2	7.7	0.2445	µg/L	0.2445	ppb	17:01:54
1	Ni 231.604†	-71.9	6.4	0.0807	µg/L	0.0807	ppb	17:01:54
1	P 214.914†	26.2	21.1	5.0333	µg/L	5.0333	ppb	17:01:54
1	Pb 220.353†	90.4	-7.1	-0.4327	µg/L	-0.4327	ppb	17:01:54
1	S 181.975 Axial†	89.0	0.8	0.6968	µg/L	0.6968	ppb	17:01:54
1	Sb 206.836†	80.1	1.6	0.2148	µg/L	0.2148	ppb	17:01:54
1	Se 196.026†	12.1	-1.5	-0.605	µg/L	-0.605	ppb	17:01:54
1	SiO2†	1691.2	-71.3	-7.6443	µg/L	-7.6443	ppb	17:01:54
1	Si 251.611†	802.7	-150.3	-2.4405	µg/L	-2.4405	ppb	17:01:54
1	Sn 189.927†	5.6	8.1	0.5622	µg/L	0.5622	ppb	17:01:54
1	Ti 334.940†	648.3	-240.9	-0.2406	µg/L	-0.2406	ppb	17:01:34
1	Tl 190.801†	-113.4	4.3	0.5811	µg/L	0.5811	ppb	17:01:54
1	U 409.014†	-322.0	-36.5	-2.2948	µg/L	-2.2948	ppb	17:01:34
1	V 292.402†	274.6	-36.7	-0.1933	µg/L	-0.1933	ppb	17:01:34
1	Zn 213.857†	538.9	11.3	0.0695	µg/L	0.0695	ppb	17:01:54
2	Sc RADIAL	154358.9	154358.9	104	%			17:00:32
2	Al 396.153Radial†	-68.9	-3.1	-0.6411	µg/L	-0.6411	ppb	17:00:52
2	Ca 317.933Radial†	649.5	-75.9	-4.5693	µg/L	-4.5693	ppb	17:00:52
2	Fe 238.204 Radial†	162.3	14.7	0.9910	µg/L	0.9910	ppb	17:00:52
2	K 766.490 Radial†	1496.9	120.8	49.716	µg/L	49.716	ppb	17:00:32
2	Mg 279.077 IEC†	172.4	-3.7	-1.5219	µg/L	-1.5219	ppb	17:00:52
2	Na 589.592 Radial†	1529.5	258.2	39.157	µg/L	39.157	ppb	17:00:32
2	Sr 421.552†	-214.6	16.2	0.0373	µg/L	0.0373	ppb	17:00:32
2	Sc 361.383	1766136.3	1766136.3	100.63	%			17:01:56
2	Y 371.029	1069430.1	1069430.1	100.51	%			17:01:56
2	Ag 328.068†	3213.8	-253.4	-1.0074	µg/L	-1.0074	ppb	17:01:58
2	As 188.979†	-17.3	0.5	0.1849	µg/L	0.1849	ppb	17:02:19
2	B 249.677†	3210.2	-40.2	-0.6565	µg/L	-0.6565	ppb	17:02:19
2	Ba 233.527†	-146.3	16.8	0.0730	µg/L	0.0730	ppb	17:02:19
2	Be 313.107†	-621.4	168.1	0.0500	µg/L	0.0500	ppb	17:01:58
2	Cd 226.502†	-122.3	-11.5	-0.0790	µg/L	-0.0790	ppb	17:02:19
2	Co 228.616†	-167.3	6.2	0.0841	µg/L	0.0841	ppb	17:02:19
2	Cr 267.716†	156.6	-22.9	-0.1919	µg/L	-0.1919	ppb	17:02:19
2	Cu 324.752†	2744.8	-61.3	-0.2595	µg/L	-0.2595	ppb	17:01:58
2	Mn 257.610†	188.7	11.9	0.0160	µg/L	0.0160	ppb	17:02:19
2	Mo 202.031†	-39.1	-4.1	-0.1293	µg/L	-0.1293	ppb	17:02:19
2	Ni 231.604†	-60.6	17.7	0.2227	µg/L	0.2227	ppb	17:02:19
2	P 214.914†	0.6	-4.4	-1.0487	µg/L	-1.0487	ppb	17:02:19
2	Pb 220.353†	74.0	-23.4	-1.4319	µg/L	-1.4319	ppb	17:02:19

2	S 181.975 Axial†	92.2	3.9	3.2288 µg/L	3.2288 ppb	17:02:19
2	Sb 206.836†	77.6	-0.9	-0.1180 µg/L	-0.1180 ppb	17:02:19
2	Se 196.026†	1.0	-12.5	-5.02 µg/L	-5.02 ppb	17:02:19
2	SiO2†	1685.5	-78.2	-8.3720 µg/L	-8.3720 ppb	17:02:19
2	Si 251.611†	746.6	-206.7	-3.3496 µg/L	-3.3496 ppb	17:02:19
2	Sn 189.927†	10.3	12.7	0.8809 µg/L	0.8809 ppb	17:02:19
2	Ti 334.940†	719.8	-170.3	-0.1700 µg/L	-0.1700 ppb	17:01:58
2	Tl 190.801†	-109.7	8.1	1.0864 µg/L	1.0864 ppb	17:02:19
2	U 409.014†	-308.2	-22.5	-1.4032 µg/L	-1.4032 ppb	17:01:58
2	V 292.402†	337.0	25.0	0.1297 µg/L	0.1297 ppb	17:01:58
2	Zn 213.857†	520.1	-7.7	-0.0490 µg/L	-0.0490 ppb	17:02:19
3	Sc RADIAL	151821.2	151821.2	103 %		17:00:54
3	Al 396.153Radial†	-35.8	28.1	5.7660 µg/L	5.7660 ppb	17:01:14
3	Ca 317.933Radial†	649.0	-66.1	-3.9762 µg/L	-3.9762 ppb	17:01:14
3	Fe 238.204 Radial†	152.9	8.2	0.5536 µg/L	0.5536 ppb	17:01:14
3	K 766.490 Radial†	1341.6	-6.4	-2.6589 µg/L	-2.6589 ppb	17:00:54
3	Mg 279.077 IEC†	176.0	2.6	1.0683 µg/L	1.0683 ppb	17:01:14
3	Na 589.592 Radial†	1495.8	249.9	37.942 µg/L	37.942 ppb	17:00:54
3	Sr 421.552†	-325.5	-95.3	-0.2198 µg/L	-0.2198 ppb	17:00:54
3	Sc 361.383	1779477.4	1779477.4	101.39 %		17:02:21
3	Y 371.029	1078016.4	1078016.4	101.31 %		17:02:21
3	Ag 328.068†	3389.2	-104.4	-0.4278 µg/L	-0.4278 ppb	17:02:23
3	As 188.979†	-17.2	0.7	0.2529 µg/L	0.2529 ppb	17:02:43
3	B 249.677†	3239.4	-35.4	-0.5764 µg/L	-0.5764 ppb	17:02:43
3	Ba 233.527†	-167.6	-3.1	-0.0137 µg/L	-0.0137 ppb	17:02:43
3	Be 313.107†	-756.0	40.0	0.0096 µg/L	0.0096 ppb	17:02:23
3	Cd 226.502†	-100.9	10.5	0.0724 µg/L	0.0724 ppb	17:02:43
3	Co 228.616†	-186.2	-11.2	-0.1522 µg/L	-0.1522 ppb	17:02:43
3	Cr 267.716†	173.8	-7.2	-0.0544 µg/L	-0.0544 ppb	17:02:43
3	Cu 324.752†	2874.1	45.7	0.1860 µg/L	0.1860 ppb	17:02:23
3	Mn 257.610†	174.4	-3.5	-0.0048 µg/L	-0.0048 ppb	17:02:43
3	Mo 202.031†	-24.1	11.0	0.3501 µg/L	0.3501 ppb	17:02:43
3	Ni 231.604†	-59.8	18.9	0.2376 µg/L	0.2376 ppb	17:02:43
3	P 214.914†	11.8	6.6	1.5759 µg/L	1.5759 ppb	17:02:43
3	Pb 220.353†	73.9	-24.0	-1.4651 µg/L	-1.4651 ppb	17:02:43
3	S 181.975 Axial†	95.0	6.0	4.8862 µg/L	4.8862 ppb	17:02:43
3	Sb 206.836†	84.7	5.4	0.7191 µg/L	0.7191 ppb	17:02:43
3	Se 196.026†	13.3	-0.4	-0.175 µg/L	-0.175 ppb	17:02:43
3	SiO2†	1699.4	-77.0	-8.2473 µg/L	-8.2473 ppb	17:02:43
3	Si 251.611†	782.0	-177.4	-2.8742 µg/L	-2.8742 ppb	17:02:43
3	Sn 189.927†	-6.6	-4.0	-0.2753 µg/L	-0.2753 ppb	17:02:43
3	Ti 334.940†	871.2	-26.3	-0.0232 µg/L	-0.0232 ppb	17:02:23
3	Tl 190.801†	-113.4	5.2	0.6959 µg/L	0.6959 ppb	17:02:43
3	U 409.014†	-417.5	-128.0	-8.0312 µg/L	-8.0312 ppb	17:02:23
3	V 292.402†	265.4	-48.1	-0.2572 µg/L	-0.2572 ppb	17:02:23
3	Zn 213.857†	508.3	-23.2	-0.1456 µg/L	-0.1456 ppb	17:02:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770149.6	100.86	%	0.462				0.46%
Sc RADIAL	152001.9	103	%	1.5				1.49%
Y 371.029	1072448.9	100.79	%	0.454				0.45%
Ag 328.068†	-19.2	-0.0821	µg/L	1.13817	-0.0821	ppb	1.13817	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.6	3.2170	µg/L	3.39828	3.2170	ppb	3.39828	105.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.9201	µg/L	1.21495	0.9201	ppb	1.21495	132.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.3	-0.3303	µg/L	0.49719	-0.3303	ppb	0.49719	150.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.4	0.0278	µg/L	0.04348	0.0278	ppb	0.04348	156.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	81.9	0.0234	µg/L	0.02306	0.0234	ppb	0.02306	98.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-59.3	-3.5708	µg/L	1.25151	-3.5708	ppb	1.25151	35.05%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.2	0.0083	µg/L	0.07832	0.0083	ppb	0.07832	948.51%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.0	-0.0545	µg/L	0.12330	-0.0545	ppb	0.12330	226.30%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.8     -0.0542 µg/L       0.13777     -0.0542 ppb        0.13777 254.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               5.8      0.0212 µg/L       0.24425      0.0212 ppb        0.24425 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        8.6      0.5803 µg/L       0.39803      0.5803 ppb        0.39803  68.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        69.8      28.726 µg/L       27.6913      28.726 ppb        27.6913  96.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.4      0.5642 µg/L       1.88533      0.5642 ppb        1.88533 334.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               0.1      0.0001 µg/L       0.01404      0.0001 ppb        0.01404 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.9      0.1551 µg/L       0.25191      0.1551 ppb        0.25191 162.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      212.0      32.174 µg/L       11.0603      32.174 ppb        11.0603  34.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.3      0.1804 µg/L       0.08661      0.1804 ppb        0.08661  48.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.8      1.8535 µg/L       3.05049      1.8535 ppb        3.05049 164.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -18.2     -1.1099 µg/L       0.58669     -1.1099 ppb        0.58669  52.86%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.6      2.9373 µg/L       2.10985      2.9373 ppb        2.10985  71.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      0.2720 µg/L       0.42149      0.2720 ppb        0.42149 154.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -4.8       -1.93 µg/L         2.683       -1.93 ppb          2.683 138.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -75.5     -8.0878 µg/L       0.38919     -8.0878 ppb        0.38919   4.81%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -178.1     -2.8881 µg/L       0.45468     -2.8881 ppb        0.45468  15.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.6      0.3892 µg/L       0.59721      0.3892 ppb        0.59721 153.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -27.4     -0.0631 µg/L       0.13749     -0.0631 ppb        0.13749 217.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -145.8     -0.1446 µg/L       0.11091     -0.1446 ppb        0.11091  76.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.9      0.7878 µg/L       0.26491      0.7878 ppb        0.26491  33.63%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -62.3     -3.9097 µg/L       3.59701     -3.9097 ppb        3.59701  92.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -19.9     -0.1069 µg/L       0.20744     -0.1069 ppb        0.20744 194.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -6.5     -0.0417 µg/L       0.10773     -0.0417 ppb        0.10773 258.22%
   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: 7
Date Collected: 3/30/2010 17:18:48
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	150447.1	150447.1	102	%			17:19:22
1	Al 396.153Radial†	25401.2	25022.2	5132.7	µg/L	5132.7	ppb	17:19:22
1	Ca 317.933Radial†	86818.2	84609.9	5090.8	µg/L	5090.8	ppb	17:19:22
1	Fe 238.204 Radial†	76699.6	75224.6	5061.8	µg/L	5061.8	ppb	17:19:22
1	K 766.490 Radial†	13929.7	12374.5	5088.7	µg/L	5088.7	ppb	17:19:22
1	Mg 279.077 IEC†	12998.2	12603.3	5178.2	µg/L	5178.2	ppb	17:19:22
1	Na 589.592 Radial†	68511.6	66113.1	10035	µg/L	10035	ppb	17:19:22
1	Sr 421.552†	228277.5	224527.9	517.91	µg/L	517.91	ppb	17:19:20
1	Sc 361.383	1756736.2	1756736.2	100.09	%			17:19:49
1	Y 371.029	1051471.7	1051471.7	98.818	%			17:19:49
1	Ag 328.068†	129586.2	126016.7	507.22	µg/L	507.22	ppb	17:19:49
1	As 188.979†	1431.2	1447.5	512.40	µg/L	512.40	ppb	17:20:09
1	B 249.677†	34020.5	30758.0	499.72	µg/L	499.72	ppb	17:19:49
1	Ba 233.527†	115660.0	115713.0	504.25	µg/L	504.25	ppb	17:19:49
1	Be 313.107†	1683097.6	1682293.9	505.01	µg/L	505.01	ppb	17:19:49
1	Cd 226.502†	73552.2	73592.8	505.00	µg/L	505.00	ppb	17:19:49
1	Co 228.616†	37413.9	37551.0	508.14	µg/L	508.14	ppb	17:19:49
1	Cr 267.716†	59943.1	59707.9	502.95	µg/L	502.95	ppb	17:19:49
1	Cu 324.752†	122063.0	119158.8	503.68	µg/L	503.68	ppb	17:19:49
1	Mn 257.610†	378802.5	378269.2	505.38	µg/L	505.38	ppb	17:19:49
1	Mo 202.031†	16008.3	16027.9	510.30	µg/L	510.30	ppb	17:20:09
1	Ni 231.604†	40299.1	40338.9	507.37	µg/L	507.37	ppb	17:19:49
1	P 214.914†	10741.1	10725.9	2549.7	µg/L	2549.7	ppb	17:20:09
1	Pb 220.353†	8473.7	8368.8	514.04	µg/L	514.04	ppb	17:20:09
1	S 181.975 Axial†	1329.1	1240.2	1020.9	µg/L	1020.9	ppb	17:20:09
1	Sb 206.836†	3973.9	3892.0	511.59	µg/L	511.59	ppb	17:20:09
1	Se 196.026†	1283.6	1268.8	510	µg/L	510	ppb	17:20:09
1	SiO2†	52268.2	50465.7	5377.2	µg/L	5377.2	ppb	17:19:49
1	Si 251.611†	156995.9	155899.0	2513.2	µg/L	2513.2	ppb	17:19:49
1	Sn 189.927†	7392.9	7388.5	513.21	µg/L	513.21	ppb	17:20:09
1	Ti 334.940†	505007.8	503645.4	503.92	µg/L	503.92	ppb	17:19:49
1	Tl 190.801†	3682.4	3796.0	517.71	µg/L	517.71	ppb	17:20:09
1	U 409.014†	7336.0	7612.8	507.49	µg/L	507.49	ppb	17:19:49
1	V 292.402†	94964.3	94564.8	508.83	µg/L	508.83	ppb	17:19:49
1	Zn 213.857†	82267.7	81665.5	502.52	µg/L	502.52	ppb	17:19:49
2	Sc RADIAL	153172.3	153172.3	104	%			17:19:26
2	Al 396.153Radial†	25695.3	24862.0	5099.7	µg/L	5099.7	ppb	17:19:26
2	Ca 317.933Radial†	88610.7	84822.1	5103.5	µg/L	5103.5	ppb	17:19:26
2	Fe 238.204 Radial†	78237.5	75368.0	5071.4	µg/L	5071.4	ppb	17:19:26
2	K 766.490 Radial†	14116.8	12311.6	5062.8	µg/L	5062.8	ppb	17:19:26
2	Mg 279.077 IEC†	13282.0	12649.9	5197.3	µg/L	5197.3	ppb	17:19:26
2	Na 589.592 Radial†	70025.6	66376.5	10075	µg/L	10075	ppb	17:19:26
2	Sr 421.552†	229523.7	221739.8	511.48	µg/L	511.48	ppb	17:19:24
2	Sc 361.383	1762706.8	1762706.8	100.43	%			17:20:12
2	Y 371.029	1055600.2	1055600.2	99.206	%			17:20:12
2	Ag 328.068†	130291.0	126280.0	508.30	µg/L	508.30	ppb	17:20:12
2	As 188.979†	1437.7	1449.1	512.97	µg/L	512.97	ppb	17:20:32
2	B 249.677†	34155.5	30777.4	500.03	µg/L	500.03	ppb	17:20:12
2	Ba 233.527†	116399.1	116057.5	505.75	µg/L	505.75	ppb	17:20:12
2	Be 313.107†	1693458.0	1686913.9	506.40	µg/L	506.40	ppb	17:20:12
2	Cd 226.502†	74111.5	73900.8	507.11	µg/L	507.11	ppb	17:20:12
2	Co 228.616†	37664.8	37674.2	509.81	µg/L	509.81	ppb	17:20:12
2	Cr 267.716†	60247.9	59808.5	503.80	µg/L	503.80	ppb	17:20:12
2	Cu 324.752†	122964.9	119643.7	505.74	µg/L	505.74	ppb	17:20:12
2	Mn 257.610†	381536.3	379709.3	507.31	µg/L	507.31	ppb	17:20:12
2	Mo 202.031†	16061.8	16027.0	510.27	µg/L	510.27	ppb	17:20:32
2	Ni 231.604†	40512.3	40414.9	508.33	µg/L	508.33	ppb	17:20:12
2	P 214.914†	10769.9	10718.3	2547.9	µg/L	2547.9	ppb	17:20:32
2	Pb 220.353†	8523.3	8389.5	515.30	µg/L	515.30	ppb	17:20:32

2	S 181.975 Axial†	1334.7	1241.2	1021.8 µg/L	1021.8 ppb	17:20:32
2	Sb 206.836†	3976.6	3881.3	510.17 µg/L	510.17 ppb	17:20:32
2	Se 196.026†	1295.2	1276.0	513 µg/L	513 ppb	17:20:32
2	SiO2†	52513.8	50533.4	5384.4 µg/L	5384.4 ppb	17:20:12
2	Si 251.611†	158194.5	156561.2	2524.0 µg/L	2524.0 ppb	17:20:12
2	Sn 189.927†	7405.6	7376.1	512.37 µg/L	512.37 ppb	17:20:32
2	Ti 334.940†	509340.5	506250.4	506.52 µg/L	506.52 ppb	17:20:12
2	Tl 190.801†	3689.5	3790.6	517.02 µg/L	517.02 ppb	17:20:32
2	U 409.014†	7505.9	7757.1	516.63 µg/L	516.63 ppb	17:20:12
2	V 292.402†	95608.6	94885.0	510.53 µg/L	510.53 ppb	17:20:12
2	Zn 213.857†	82875.7	81992.4	504.54 µg/L	504.54 ppb	17:20:12
3	Sc RADIAL	152045.9	152045.9	103 %		17:19:30
3	Al 396.153Radial†	25587.5	24940.8	5115.9 µg/L	5115.9 ppb	17:19:30
3	Ca 317.933Radial†	87880.1	84745.3	5098.9 µg/L	5098.9 ppb	17:19:30
3	Fe 238.204 Radial†	77397.9	75111.0	5054.1 µg/L	5054.1 ppb	17:19:30
3	K 766.490 Radial†	14139.5	12434.6	5113.4 µg/L	5113.4 ppb	17:19:30
3	Mg 279.077 IEC†	13163.6	12629.8	5189.1 µg/L	5189.1 ppb	17:19:30
3	Na 589.592 Radial†	69543.6	66408.6	10079 µg/L	10079 ppb	17:19:30
3	Sr 421.552†	226721.6	220656.4	508.98 µg/L	508.98 ppb	17:19:28
3	Sc 361.383	1744223.5	1744223.5	99.382 %		17:20:35
3	Y 371.029	1044447.8	1044447.8	98.158 %		17:20:35
3	Ag 328.068†	128861.6	126216.4	508.02 µg/L	508.02 ppb	17:20:35
3	As 188.979†	1418.6	1445.1	511.56 µg/L	511.56 ppb	17:20:55
3	B 249.677†	34051.2	31032.7	504.20 µg/L	504.20 ppb	17:20:35
3	Ba 233.527†	114922.7	115799.9	504.62 µg/L	504.62 ppb	17:20:35
3	Be 313.107†	1672379.2	1683571.6	505.40 µg/L	505.40 ppb	17:20:35
3	Cd 226.502†	73206.3	73771.8	506.23 µg/L	506.23 ppb	17:20:35
3	Co 228.616†	37218.9	37622.9	509.11 µg/L	509.11 ppb	17:20:35
3	Cr 267.716†	59519.2	59711.0	502.98 µg/L	502.98 ppb	17:20:35
3	Cu 324.752†	121680.7	119649.0	505.75 µg/L	505.75 ppb	17:20:35
3	Mn 257.610†	376948.2	379118.2	506.52 µg/L	506.52 ppb	17:20:35
3	Mo 202.031†	15874.2	16007.7	509.65 µg/L	509.65 ppb	17:20:55
3	Ni 231.604†	40030.7	40357.7	507.61 µg/L	507.61 ppb	17:20:35
3	P 214.914†	10643.0	10704.2	2544.5 µg/L	2544.5 ppb	17:20:55
3	Pb 220.353†	8430.7	8386.1	515.10 µg/L	515.10 ppb	17:20:55
3	S 181.975 Axial†	1321.8	1242.3	1022.7 µg/L	1022.7 ppb	17:20:55
3	Sb 206.836†	3916.5	3862.8	507.74 µg/L	507.74 ppb	17:20:55
3	Se 196.026†	1283.9	1278.3	514 µg/L	514 ppb	17:20:55
3	SiO2†	51951.5	50521.6	5383.2 µg/L	5383.2 ppb	17:20:35
3	Si 251.611†	156290.5	156314.4	2520.0 µg/L	2520.0 ppb	17:20:35
3	Sn 189.927†	7333.8	7381.9	512.77 µg/L	512.77 ppb	17:20:55
3	Ti 334.940†	502776.2	505019.3	505.29 µg/L	505.29 ppb	17:20:35
3	Tl 190.801†	3676.0	3816.0	520.41 µg/L	520.41 ppb	17:20:55
3	U 409.014†	7327.7	7657.0	510.29 µg/L	510.29 ppb	17:20:35
3	V 292.402†	94376.7	94654.2	509.30 µg/L	509.30 ppb	17:20:35
3	Zn 213.857†	81702.2	81686.1	502.64 µg/L	502.64 ppb	17:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754555.5	99.970	%	0.5374				0.54%
Sc RADIAL	151888.5	103	%	0.9				0.90%
Y 371.029	1050506.6	98.728	%	0.5299				0.54%
Ag 328.068†	126171.0	507.85	µg/L	0.560	507.85	ppb	0.560	0.11%
QC value within limits for Ag 328.068 Recovery = 101.57%								
Al 396.153Radial†	24941.7	5116.1	µg/L	16.51	5116.1	ppb	16.51	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.32%								
As 188.979†	1447.2	512.31	µg/L	0.710	512.31	ppb	0.710	0.14%
QC value within limits for As 188.979 Recovery = 102.46%								
B 249.677†	30856.0	501.32	µg/L	2.500	501.32	ppb	2.500	0.50%
QC value within limits for B 249.677 Recovery = 100.26%								
Ba 233.527†	115856.8	504.87	µg/L	0.781	504.87	ppb	0.781	0.15%
QC value within limits for Ba 233.527 Recovery = 100.97%								
Be 313.107†	1684259.8	505.60	µg/L	0.717	505.60	ppb	0.717	0.14%
QC value within limits for Be 313.107 Recovery = 101.12%								
Ca 317.933Radial†	84725.8	5097.7	µg/L	6.46	5097.7	ppb	6.46	0.13%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	73755.1	506.11	µg/L	1.062	506.11	ppb	1.062	0.21%
QC value within limits for Cd 226.502 Recovery = 101.22%								
Co 228.616†	37616.0	509.02	µg/L	0.837	509.02	ppb	0.837	0.16%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            59742.5      503.24 µg/L         0.479      503.24 ppb          0.479   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.65%
Cu 324.752†           119483.8      505.06 µg/L         1.190      505.06 ppb          1.190   0.24%
   QC value within limits for Cu 324.752  Recovery = 101.01%
Fe 238.204 Radial†     75234.5      5062.4 µg/L          8.67      5062.4 ppb           8.67   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      12373.6      5088.3 µg/L         25.32      5088.3 ppb          25.32   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 101.77%
Mg 279.077 IEC†        12627.7      5188.2 µg/L          9.58      5188.2 ppb           9.58   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.76%
Mn 257.610†           379032.3      506.40 µg/L         0.967      506.40 ppb          0.967   0.19%
   QC value within limits for Mn 257.610  Recovery = 101.28%
Mo 202.031†            16020.9      510.07 µg/L         0.363      510.07 ppb          0.363   0.07%
   QC value within limits for Mo 202.031  Recovery = 102.01%
Na 589.592 Radial†     66299.4       10063 µg/L          24.6       10063 ppb           24.6   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.63%
Ni 231.604†            40370.5      507.77 µg/L         0.497      507.77 ppb          0.497   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.55%
P 214.914†             10716.1      2547.4 µg/L          2.63      2547.4 ppb           2.63   0.10%
   QC value within limits for P 214.914  Recovery = 101.89%
Pb 220.353†             8381.5      514.81 µg/L         0.677      514.81 ppb          0.677   0.13%
   QC value within limits for Pb 220.353  Recovery = 102.96%
S 181.975 Axial†        1241.2      1021.8 µg/L          0.88      1021.8 ppb           0.88   0.09%
   QC value within limits for S 181.975 Axial  Recovery = 102.18%
Sb 206.836†             3878.7      509.83 µg/L         1.944      509.83 ppb          1.944   0.38%
   QC value within limits for Sb 206.836  Recovery = 101.97%
Se 196.026†             1274.4         512 µg/L           2.0         512 ppb            2.0   0.39%
   QC value within limits for Se 196.026  Recovery = 102.47%
SiO2†                  50506.9      5381.6 µg/L          3.88      5381.6 ppb           3.88   0.07%
   QC value within limits for SiO2  Recovery = 100.64%
Si 251.611†           156258.2      2519.1 µg/L          5.42      2519.1 ppb           5.42   0.22%
   QC value within limits for Si 251.611  Recovery = 100.76%
Sn 189.927†             7382.2      512.78 µg/L         0.424      512.78 ppb          0.424   0.08%
   QC value within limits for Sn 189.927  Recovery = 102.56%
Sr 421.552†           222308.0      512.79 µg/L         4.608      512.79 ppb          4.608   0.90%
   QC value within limits for Sr 421.552  Recovery = 102.56%
Ti 334.940†           504971.7      505.24 µg/L         1.303      505.24 ppb          1.303   0.26%
   QC value within limits for Ti 334.940  Recovery = 101.05%
Tl 190.801†             3800.8      518.38 µg/L         1.791      518.38 ppb          1.791   0.35%
   QC value within limits for Tl 190.801  Recovery = 103.68%
U 409.014†              7675.7      511.47 µg/L         4.685      511.47 ppb          4.685   0.92%
   QC value within limits for U 409.014  Recovery = 102.29%
V 292.402†             94701.3      509.55 µg/L         0.881      509.55 ppb          0.881   0.17%
   QC value within limits for V 292.402  Recovery = 101.91%
Zn 213.857†            81781.3      503.23 µg/L         1.132      503.23 ppb          1.132   0.22%
   QC value within limits for Zn 213.857  Recovery = 100.65%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 17:21:02
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	151612.6	151612.6	103	%			17:21:31
1	Al 396.153Radial†	-56.0	8.2	1.6789	µg/L	1.6789	ppb	17:21:51
1	Ca 317.933Radial†	667.4	-47.3	-2.8438	µg/L	-2.8438	ppb	17:21:51
1	Fe 238.204 Radial†	163.6	18.8	1.2660	µg/L	1.2660	ppb	17:21:51
1	K 766.490 Radial†	1549.7	198.2	81.562	µg/L	81.562	ppb	17:21:31
1	Mg 279.077 IEC†	197.6	23.9	9.8035	µg/L	9.8035	ppb	17:21:51
1	Na 589.592 Radial†	1504.5	260.3	39.459	µg/L	39.459	ppb	17:21:31
1	Sr 421.552†	-197.6	29.0	0.0669	µg/L	0.0669	ppb	17:21:31
1	Sc 361.383	1786652.6	1786652.6	101.80	%			17:22:39
1	Y 371.029	1082214.6	1082214.6	101.71	%			17:22:39
1	Ag 328.068†	3829.2	314.5	1.2474	µg/L	1.2474	ppb	17:22:41
1	As 188.979†	-12.2	5.7	1.9850	µg/L	1.9850	ppb	17:23:01
1	B 249.677†	3259.7	-28.3	-0.4609	µg/L	-0.4609	ppb	17:23:01
1	Ba 233.527†	-146.1	18.7	0.0814	µg/L	0.0814	ppb	17:23:01
1	Be 313.107†	-808.0	-8.2	-0.0030	µg/L	-0.0030	ppb	17:22:41
1	Cd 226.502†	-124.0	-11.8	-0.0807	µg/L	-0.0807	ppb	17:23:01
1	Co 228.616†	-172.8	2.7	0.0368	µg/L	0.0368	ppb	17:23:01
1	Cr 267.716†	168.4	-13.2	-0.1097	µg/L	-0.1097	ppb	17:23:01
1	Cu 324.752†	2861.6	22.1	0.0918	µg/L	0.0918	ppb	17:22:41
1	Mn 257.610†	203.5	24.3	0.0321	µg/L	0.0321	ppb	17:23:01
1	Mo 202.031†	-21.0	14.2	0.4512	µg/L	0.4512	ppb	17:23:01
1	Ni 231.604†	-43.7	35.0	0.4399	µg/L	0.4399	ppb	17:23:01
1	P 214.914†	16.6	11.3	2.6998	µg/L	2.6998	ppb	17:23:01
1	Pb 220.353†	85.6	-12.9	-0.7865	µg/L	-0.7865	ppb	17:23:01
1	S 181.975 Axial†	90.7	1.4	1.1791	µg/L	1.1791	ppb	17:23:01
1	Sb 206.836†	92.8	13.1	1.7284	µg/L	1.7284	ppb	17:23:01
1	Se 196.026†	20.3	6.4	2.54	µg/L	2.54	ppb	17:23:01
1	SiO2†	1716.5	-67.0	-7.1932	µg/L	-7.1932	ppb	17:23:01
1	Si 251.611†	786.3	-176.3	-2.8660	µg/L	-2.8660	ppb	17:23:01
1	Sn 189.927†	12.2	14.5	1.0060	µg/L	1.0060	ppb	17:23:01
1	Ti 334.940†	822.6	-77.5	-0.0777	µg/L	-0.0777	ppb	17:22:41
1	Tl 190.801†	-99.1	19.8	2.6569	µg/L	2.6569	ppb	17:23:01
1	U 409.014†	-320.3	-30.9	-1.9385	µg/L	-1.9385	ppb	17:22:41
1	V 292.402†	311.2	-4.2	-0.0194	µg/L	-0.0194	ppb	17:22:41
1	Zn 213.857†	539.4	5.3	0.0299	µg/L	0.0299	ppb	17:23:01
2	Sc RADIAL	151711.2	151711.2	103	%			17:21:53
2	Al 396.153Radial†	-61.3	3.2	0.6395	µg/L	0.6395	ppb	17:22:13
2	Ca 317.933Radial†	632.0	-82.1	-4.9402	µg/L	-4.9402	ppb	17:22:13
2	Fe 238.204 Radial†	152.2	7.6	0.5125	µg/L	0.5125	ppb	17:22:13
2	K 766.490 Radial†	1537.5	185.4	76.289	µg/L	76.289	ppb	17:21:53
2	Mg 279.077 IEC†	173.8	0.6	0.2447	µg/L	0.2447	ppb	17:22:13
2	Na 589.592 Radial†	1416.7	173.8	26.320	µg/L	26.320	ppb	17:21:53
2	Sr 421.552†	-295.9	-66.7	-0.1537	µg/L	-0.1537	ppb	17:21:53
2	Sc 361.383	1800964.8	1800964.8	102.61	%			17:23:03
2	Y 371.029	1089468.5	1089468.5	102.39	%			17:23:03
2	Ag 328.068†	3309.5	-221.9	-0.8860	µg/L	-0.8860	ppb	17:23:05
2	As 188.979†	-17.3	0.8	0.2871	µg/L	0.2871	ppb	17:23:26
2	B 249.677†	3208.8	-103.3	-1.6830	µg/L	-1.6830	ppb	17:23:26
2	Ba 233.527†	-167.1	-0.7	-0.0027	µg/L	-0.0027	ppb	17:23:26
2	Be 313.107†	-614.2	187.0	0.0548	µg/L	0.0548	ppb	17:23:05
2	Cd 226.502†	-73.2	38.7	0.2657	µg/L	0.2657	ppb	17:23:26
2	Co 228.616†	-188.1	-10.8	-0.1466	µg/L	-0.1466	ppb	17:23:26
2	Cr 267.716†	158.3	-24.3	-0.2015	µg/L	-0.2015	ppb	17:23:26
2	Cu 324.752†	2677.3	-179.9	-0.7614	µg/L	-0.7614	ppb	17:23:05
2	Mn 257.610†	177.7	-2.4	-0.0032	µg/L	-0.0032	ppb	17:23:26
2	Mo 202.031†	-24.4	11.0	0.3508	µg/L	0.3508	ppb	17:23:26
2	Ni 231.604†	-78.6	1.3	0.0163	µg/L	0.0163	ppb	17:23:26
2	P 214.914†	5.6	0.5	0.1210	µg/L	0.1210	ppb	17:23:26
2	Pb 220.353†	99.5	0.0	0.0062	µg/L	0.0062	ppb	17:23:26

2	S 181.975 Axial†	88.6	-1.3	-1.0766 µg/L	-1.0766 ppb	17:23:26
2	Sb 206.836†	81.5	1.3	0.1826 µg/L	0.1826 ppb	17:23:26
2	Se 196.026†	-3.8	-17.2	-6.90 µg/L	-6.90 ppb	17:23:26
2	SiO2†	1740.4	-57.1	-6.1143 µg/L	-6.1143 ppb	17:23:26
2	Si 251.611†	757.6	-210.4	-3.4098 µg/L	-3.4098 ppb	17:23:26
2	Sn 189.927†	-2.7	-0.1	-0.0082 µg/L	-0.0082 ppb	17:23:26
2	Ti 334.940†	623.6	-277.8	-0.2767 µg/L	-0.2767 ppb	17:23:05
2	Tl 190.801†	-113.2	6.7	0.9019 µg/L	0.9019 ppb	17:23:26
2	U 409.014†	-361.4	-68.4	-4.2789 µg/L	-4.2789 ppb	17:23:05
2	V 292.402†	336.0	17.6	0.0936 µg/L	0.0936 ppb	17:23:05
2	Zn 213.857†	519.1	-18.7	-0.1155 µg/L	-0.1155 ppb	17:23:26
3	Sc RADIAL	149965.0	149965.0	101 %		17:22:15
3	Al 396.153Radial†	-31.6	31.7	6.5334 µg/L	6.5334 ppb	17:22:35
3	Ca 317.933Radial†	652.8	-54.4	-3.2756 µg/L	-3.2756 ppb	17:22:35
3	Fe 238.204 Radial†	143.2	0.5	0.0329 µg/L	0.0329 ppb	17:22:35
3	K 766.490 Radial†	1418.5	85.5	35.164 µg/L	35.164 ppb	17:22:15
3	Mg 279.077 IEC†	153.3	-17.6	-7.2349 µg/L	-7.2349 ppb	17:22:35
3	Na 589.592 Radial†	1488.2	260.4	39.503 µg/L	39.503 ppb	17:22:15
3	Sr 421.552†	-208.2	16.4	0.0379 µg/L	0.0379 ppb	17:22:15
3	Sc 361.383	1752421.7	1752421.7	99.849 %		17:23:28
3	Y 371.029	1062426.9	1062426.9	99.848 %		17:23:28
3	Ag 328.068†	3395.4	-46.5	-0.1971 µg/L	-0.1971 ppb	17:23:30
3	As 188.979†	-14.9	2.7	0.9525 µg/L	0.9525 ppb	17:23:50
3	B 249.677†	3249.0	23.6	0.3844 µg/L	0.3844 ppb	17:23:50
3	Ba 233.527†	-163.8	-1.9	-0.0085 µg/L	-0.0085 ppb	17:23:50
3	Be 313.107†	-691.4	93.2	0.0254 µg/L	0.0254 ppb	17:23:30
3	Cd 226.502†	-84.5	25.4	0.1744 µg/L	0.1744 ppb	17:23:50
3	Co 228.616†	-169.0	3.2	0.0435 µg/L	0.0435 ppb	17:23:50
3	Cr 267.716†	148.8	-29.5	-0.2422 µg/L	-0.2422 ppb	17:23:50
3	Cu 324.752†	2779.8	-4.9	-0.0279 µg/L	-0.0279 ppb	17:23:30
3	Mn 257.610†	176.4	1.1	0.0018 µg/L	0.0018 ppb	17:23:50
3	Mo 202.031†	-30.5	4.2	0.1327 µg/L	0.1327 ppb	17:23:50
3	Ni 231.604†	-69.8	8.0	0.1010 µg/L	0.1010 ppb	17:23:50
3	P 214.914†	30.9	26.0	6.1996 µg/L	6.1996 ppb	17:23:50
3	Pb 220.353†	101.9	5.1	0.3202 µg/L	0.3202 ppb	17:23:50
3	S 181.975 Axial†	94.9	7.3	6.0180 µg/L	6.0180 ppb	17:23:50
3	Sb 206.836†	85.1	7.1	0.9397 µg/L	0.9397 ppb	17:23:50
3	Se 196.026†	15.4	1.8	0.725 µg/L	0.725 ppb	17:23:50
3	SiO2†	1680.4	-70.2	-7.5145 µg/L	-7.5145 ppb	17:23:50
3	Si 251.611†	760.4	-187.1	-3.0316 µg/L	-3.0316 ppb	17:23:50
3	Sn 189.927†	-0.2	2.4	0.1634 µg/L	0.1634 ppb	17:23:50
3	Ti 334.940†	528.0	-356.8	-0.3534 µg/L	-0.3534 ppb	17:23:30
3	Tl 190.801†	-100.9	16.0	2.1437 µg/L	2.1437 ppb	17:23:50
3	U 409.014†	-418.3	-135.2	-8.4743 µg/L	-8.4743 ppb	17:23:30
3	V 292.402†	281.8	-27.6	-0.1515 µg/L	-0.1515 ppb	17:23:30
3	Zn 213.857†	523.6	-0.2	-0.0020 µg/L	-0.0020 ppb	17:23:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1780013.1	101.42	%	1.421				1.40%
Sc RADIAL	151096.3	102	%	0.7				0.65%
Y 371.029	1078036.7	101.32	%	1.315				1.30%
Ag 328.068†	15.3	0.0548	µg/L	1.08877	0.0548	ppb	1.08877	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.4	2.9506	µg/L	3.14602	2.9506	ppb	3.14602	106.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.1	1.0749	µg/L	0.85558	1.0749	ppb	0.85558	79.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-36.0	-0.5865	µg/L	1.03942	-0.5865	ppb	1.03942	177.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.4	0.0234	µg/L	0.05028	0.0234	ppb	0.05028	214.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	90.7	0.0257	µg/L	0.02894	0.0257	ppb	0.02894	112.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-61.3	-3.6865	µg/L	1.10699	-3.6865	ppb	1.10699	30.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.4	0.1198	µg/L	0.17957	0.1198	ppb	0.17957	149.88%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.6	-0.0221	µg/L	0.10788	-0.0221	ppb	0.10788	488.25%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -22.3     -0.1845 µg/L       0.06787     -0.1845 ppb        0.06787  36.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -54.2     -0.2325 µg/L       0.46196     -0.2325 ppb        0.46196 198.68%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         9.0      0.6038 µg/L       0.62161      0.6038 ppb        0.62161 102.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        156.3      64.338 µg/L       25.4031      64.338 ppb        25.4031  39.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.3      0.9378 µg/L       8.54036      0.9378 ppb        8.54036 910.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                7.7      0.0102 µg/L       0.01910      0.0102 ppb        0.01910 186.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.8      0.3116 µg/L       0.16283      0.3116 ppb        0.16283  52.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       231.5      35.094 µg/L        7.5987      35.094 ppb         7.5987  21.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               14.8      0.1857 µg/L       0.22414      0.1857 ppb        0.22414 120.67%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                12.6      3.0068 µg/L       3.05088      3.0068 ppb        3.05088 101.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.6     -0.1534 µg/L       0.57034     -0.1534 ppb        0.57034 371.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.5      2.0402 µg/L       3.62485      2.0402 ppb        3.62485 177.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.2      0.9502 µg/L       0.77295      0.9502 ppb        0.77295  81.34%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.0       -1.21 µg/L         5.010       -1.21 ppb          5.010 413.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -64.7     -6.9407 µg/L       0.73346     -6.9407 ppb        0.73346  10.57%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -191.3     -3.1025 µg/L       0.27874     -3.1025 ppb        0.27874   8.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.6      0.3871 µg/L       0.54288      0.3871 ppb        0.54288 140.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -7.1     -0.0163 µg/L       0.11990     -0.0163 ppb        0.11990 735.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -237.4     -0.2359 µg/L       0.14230     -0.2359 ppb        0.14230  60.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               14.2      1.9008 µg/L       0.90235      1.9008 ppb        0.90235  47.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -78.2     -4.8972 µg/L       3.31148     -4.8972 ppb        3.31148  67.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -4.7     -0.0257 µg/L       0.12269     -0.0257 ppb        0.12269 476.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -4.5     -0.0292 µg/L       0.07644     -0.0292 ppb        0.07644 261.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 17:40:12
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	154418.8	154418.8	104	%			17:40:45
1	Al 396.153Radial†	25881.5	24840.1	5095.1	µg/L	5095.1	ppb	17:40:45
1	Ca 317.933Radial†	89405.0	84892.2	5107.8	µg/L	5107.8	ppb	17:40:45
1	Fe 238.204 Radial†	78825.0	75320.8	5068.2	µg/L	5068.2	ppb	17:40:45
1	K 766.490 Radial†	14351.2	12426.0	5109.9	µg/L	5109.9	ppb	17:40:45
1	Mg 279.077 IEC†	13472.2	12728.5	5229.6	µg/L	5229.6	ppb	17:40:45
1	Na 589.592 Radial†	70371.6	66162.3	10042	µg/L	10042	ppb	17:40:45
1	Sr 421.552†	231921.2	222246.9	512.65	µg/L	512.65	ppb	17:40:43
1	Sc 361.383	1770216.3	1770216.3	100.86	%			17:41:12
1	Y 371.029	1058374.3	1058374.3	99.467	%			17:41:12
1	Ag 328.068†	130653.5	126089.1	507.50	µg/L	507.50	ppb	17:41:12
1	As 188.979†	1448.8	1454.1	514.70	µg/L	514.70	ppb	17:41:32
1	B 249.677†	34436.8	30912.0	502.23	µg/L	502.23	ppb	17:41:12
1	Ba 233.527†	116767.3	115930.9	505.19	µg/L	505.19	ppb	17:41:12
1	Be 313.107†	1699194.9	1685448.9	505.96	µg/L	505.96	ppb	17:41:12
1	Cd 226.502†	74344.1	73818.3	506.54	µg/L	506.54	ppb	17:41:12
1	Co 228.616†	37776.5	37625.9	509.15	µg/L	509.15	ppb	17:41:12
1	Cr 267.716†	60453.2	59757.6	503.37	µg/L	503.37	ppb	17:41:12
1	Cu 324.752†	123125.1	119283.2	504.21	µg/L	504.21	ppb	17:41:12
1	Mn 257.610†	382389.5	378943.7	506.28	µg/L	506.28	ppb	17:41:12
1	Mo 202.031†	16142.5	16039.2	510.65	µg/L	510.65	ppb	17:41:32
1	Ni 231.604†	40624.4	40354.8	507.57	µg/L	507.57	ppb	17:41:12
1	P 214.914†	10878.0	10780.0	2562.6	µg/L	2562.6	ppb	17:41:32
1	Pb 220.353†	8582.5	8412.1	516.69	µg/L	516.69	ppb	17:41:32
1	S 181.975 Axial†	1354.9	1255.6	1033.6	µg/L	1033.6	ppb	17:41:32
1	Sb 206.836†	4013.1	3900.7	512.73	µg/L	512.73	ppb	17:41:32
1	Se 196.026†	1310.6	1285.8	517	µg/L	517	ppb	17:41:32
1	SiO2†	52722.5	50518.5	5382.8	µg/L	5382.8	ppb	17:41:12
1	Si 251.611†	158212.1	155910.4	2513.4	µg/L	2513.4	ppb	17:41:12
1	Sn 189.927†	7470.8	7409.5	514.67	µg/L	514.67	ppb	17:41:32
1	Ti 334.940†	509168.7	503928.7	504.20	µg/L	504.20	ppb	17:41:12
1	Tl 190.801†	3749.6	3834.6	522.90	µg/L	522.90	ppb	17:41:32
1	U 409.014†	7397.7	7618.2	507.79	µg/L	507.79	ppb	17:41:12
1	V 292.402†	95558.2	94431.1	508.12	µg/L	508.12	ppb	17:41:12
1	Zn 213.857†	83202.9	81966.8	504.38	µg/L	504.38	ppb	17:41:12
2	Sc RADIAL	152256.9	152256.9	103	%			17:40:49
2	Al 396.153Radial†	25420.4	24744.1	5075.6	µg/L	5075.6	ppb	17:40:49
2	Ca 317.933Radial†	88042.4	84784.4	5101.3	µg/L	5101.3	ppb	17:40:49
2	Fe 238.204 Radial†	77781.8	75379.5	5072.2	µg/L	5072.2	ppb	17:40:49
2	K 766.490 Radial†	14172.4	12447.5	5118.8	µg/L	5118.8	ppb	17:40:49
2	Mg 279.077 IEC†	13260.1	12705.8	5220.1	µg/L	5220.1	ppb	17:40:49
2	Na 589.592 Radial†	69446.9	66221.0	10051	µg/L	10051	ppb	17:40:49
2	Sr 421.552†	231973.3	225450.1	520.04	µg/L	520.04	ppb	17:40:47
2	Sc 361.383	1750687.1	1750687.1	99.750	%			17:41:35
2	Y 371.029	1047187.7	1047187.7	98.416	%			17:41:35
2	Ag 328.068†	129307.7	126184.9	507.89	µg/L	507.89	ppb	17:41:35
2	As 188.979†	1415.4	1436.6	508.61	µg/L	508.61	ppb	17:41:55
2	B 249.677†	34174.1	31029.5	504.14	µg/L	504.14	ppb	17:41:35
2	Ba 233.527†	115618.6	116070.7	505.80	µg/L	505.80	ppb	17:41:35
2	Be 313.107†	1681827.2	1686830.4	506.38	µg/L	506.38	ppb	17:41:35
2	Cd 226.502†	73697.6	73992.4	507.74	µg/L	507.74	ppb	17:41:35
2	Co 228.616†	37362.3	37628.4	509.19	µg/L	509.19	ppb	17:41:35
2	Cr 267.716†	59945.8	59917.6	504.72	µg/L	504.72	ppb	17:41:35
2	Cu 324.752†	122121.4	119638.7	505.71	µg/L	505.71	ppb	17:41:35
2	Mn 257.610†	378960.5	379735.3	507.34	µg/L	507.34	ppb	17:41:35
2	Mo 202.031†	15799.0	15873.4	505.38	µg/L	505.38	ppb	17:41:55
2	Ni 231.604†	40245.2	40424.0	508.44	µg/L	508.44	ppb	17:41:35
2	P 214.914†	10594.8	10616.3	2523.6	µg/L	2523.6	ppb	17:41:55
2	Pb 220.353†	8346.4	8270.4	507.99	µg/L	507.99	ppb	17:41:55

2	S 181.975 Axial†	1315.0	1230.6	1013.0 µg/L	1013.0 ppb	17:41:55
2	Sb 206.836†	3926.2	3857.9	507.01 µg/L	507.01 ppb	17:41:55
2	Se 196.026†	1283.5	1273.1	512 µg/L	512 ppb	17:41:55
2	SiO2†	52198.4	50576.1	5389.2 µg/L	5389.2 ppb	17:41:35
2	Si 251.611†	157052.2	156497.4	2523.0 µg/L	2523.0 ppb	17:41:35
2	Sn 189.927†	7295.4	7316.3	508.22 µg/L	508.22 ppb	17:41:55
2	Ti 334.940†	504666.0	505046.0	505.31 µg/L	505.31 ppb	17:41:35
2	Tl 190.801†	3638.3	3764.5	513.49 µg/L	513.49 ppb	17:41:55
2	U 409.014†	7417.4	7719.8	514.19 µg/L	514.19 ppb	17:41:35
2	V 292.402†	94605.0	94532.4	508.61 µg/L	508.61 ppb	17:41:35
2	Zn 213.857†	82370.8	82052.8	504.91 µg/L	504.91 ppb	17:41:35
3	Sc RADIAL	152947.1	152947.1	103 %		17:40:53
3	Al 396.153Radial†	25668.1	24872.2	5101.8 µg/L	5101.8 ppb	17:40:53
3	Ca 317.933Radial†	88921.9	85248.8	5129.2 µg/L	5129.2 ppb	17:40:53
3	Fe 238.204 Radial†	78236.0	75477.7	5078.8 µg/L	5078.8 ppb	17:40:53
3	K 766.490 Radial†	14358.7	12565.5	5167.3 µg/L	5167.3 ppb	17:40:53
3	Mg 279.077 IEC†	13303.1	12689.2	5213.4 µg/L	5213.4 ppb	17:40:53
3	Na 589.592 Radial†	69816.7	66274.2	10059 µg/L	10059 ppb	17:40:53
3	Sr 421.552†	230012.7	222538.7	513.32 µg/L	513.32 ppb	17:40:51
3	Sc 361.383	1730890.4	1730890.4	98.622 %		17:41:58
3	Y 371.029	1036634.2	1036634.2	97.424 %		17:41:58
3	Ag 328.068†	128218.1	126562.7	509.38 µg/L	509.38 ppb	17:41:58
3	As 188.979†	1421.5	1459.1	516.45 µg/L	516.45 ppb	17:42:18
3	B 249.677†	33515.7	30753.7	499.65 µg/L	499.65 ppb	17:41:58
3	Ba 233.527†	114235.8	115994.3	505.47 µg/L	505.47 ppb	17:41:58
3	Be 313.107†	1658067.5	1682022.5	504.93 µg/L	504.93 ppb	17:41:58
3	Cd 226.502†	72585.2	73709.5	505.80 µg/L	505.80 ppb	17:41:58
3	Co 228.616†	36920.9	37609.3	508.93 µg/L	508.93 ppb	17:41:58
3	Cr 267.716†	59212.3	59861.1	504.25 µg/L	504.25 ppb	17:41:58
3	Cu 324.752†	120482.8	119377.5	504.61 µg/L	504.61 ppb	17:41:58
3	Mn 257.610†	374104.2	379156.2	506.57 µg/L	506.57 ppb	17:41:58
3	Mo 202.031†	15772.0	16027.1	510.27 µg/L	510.27 ppb	17:42:18
3	Ni 231.604†	39690.0	40322.5	507.17 µg/L	507.17 ppb	17:41:58
3	P 214.914†	10538.2	10680.4	2538.8 µg/L	2538.8 ppb	17:42:18
3	Pb 220.353†	8367.4	8387.4	515.18 µg/L	515.18 ppb	17:42:18
3	S 181.975 Axial†	1314.1	1244.8	1024.7 µg/L	1024.7 ppb	17:42:18
3	Sb 206.836†	3901.7	3878.2	509.75 µg/L	509.75 ppb	17:42:18
3	Se 196.026†	1266.3	1270.4	511 µg/L	511 ppb	17:42:18
3	SiO2†	51351.6	50316.0	5361.2 µg/L	5361.2 ppb	17:41:58
3	Si 251.611†	154950.0	156166.6	2517.6 µg/L	2517.6 ppb	17:41:58
3	Sn 189.927†	7269.1	7373.3	512.16 µg/L	512.16 ppb	17:42:18
3	Ti 334.940†	498628.4	504710.5	504.98 µg/L	504.98 ppb	17:41:58
3	Tl 190.801†	3639.4	3807.3	519.24 µg/L	519.24 ppb	17:42:18
3	U 409.014†	7213.7	7598.2	506.56 µg/L	506.56 ppb	17:41:58
3	V 292.402†	93505.2	94502.0	508.50 µg/L	508.50 ppb	17:41:58
3	Zn 213.857†	81375.0	81987.6	504.51 µg/L	504.51 ppb	17:41:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750597.9	99.745	%	1.1204				1.12%
Sc RADIAL	153207.6	104	%	0.7				0.72%
Y 371.029	1047398.7	98.436	%	1.0217				1.04%
Ag 328.068†	126278.9	508.26	µg/L	0.994	508.26	ppb	0.994	0.20%
QC value within limits for Ag 328.068 Recovery = 101.65%								
Al 396.153Radial†	24818.8	5090.8	µg/L	13.60	5090.8	ppb	13.60	0.27%
QC value within limits for Al 396.153Radial Recovery = 101.82%								
As 188.979†	1449.9	513.25	µg/L	4.114	513.25	ppb	4.114	0.80%
QC value within limits for As 188.979 Recovery = 102.65%								
B 249.677†	30898.4	502.01	µg/L	2.256	502.01	ppb	2.256	0.45%
QC value within limits for B 249.677 Recovery = 100.40%								
Ba 233.527†	115998.6	505.49	µg/L	0.304	505.49	ppb	0.304	0.06%
QC value within limits for Ba 233.527 Recovery = 101.10%								
Be 313.107†	1684767.3	505.76	µg/L	0.744	505.76	ppb	0.744	0.15%
QC value within limits for Be 313.107 Recovery = 101.15%								
Ca 317.933Radial†	84975.2	5112.7	µg/L	14.62	5112.7	ppb	14.62	0.29%
QC value within limits for Ca 317.933Radial Recovery = 102.25%								
Cd 226.502†	73840.1	506.69	µg/L	0.980	506.69	ppb	0.980	0.19%
QC value within limits for Cd 226.502 Recovery = 101.34%								
Co 228.616†	37621.2	509.09	µg/L	0.141	509.09	ppb	0.141	0.03%

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   QC value within limits for Co 228.616  Recovery = 101.82%
Cr 267.716†            59845.4      504.11 µg/L         0.682      504.11 ppb          0.682   0.14%
   QC value within limits for Cr 267.716  Recovery = 100.82%
Cu 324.752†           119433.1      504.84 µg/L         0.779      504.84 ppb          0.779   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.97%
Fe 238.204 Radial†     75392.7      5073.1 µg/L          5.33      5073.1 ppb           5.33   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.46%
K 766.490 Radial†      12479.7      5132.0 µg/L         30.90      5132.0 ppb          30.90   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 102.64%
Mg 279.077 IEC†        12707.8      5221.1 µg/L          8.12      5221.1 ppb           8.12   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.42%
Mn 257.610†           379278.4      506.73 µg/L         0.548      506.73 ppb          0.548   0.11%
   QC value within limits for Mn 257.610  Recovery = 101.35%
Mo 202.031†            15979.9      508.77 µg/L         2.941      508.77 ppb          2.941   0.58%
   QC value within limits for Mo 202.031  Recovery = 101.75%
Na 589.592 Radial†     66219.2       10051 µg/L           8.5       10051 ppb            8.5   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40367.1      507.73 µg/L         0.652      507.73 ppb          0.652   0.13%
   QC value within limits for Ni 231.604  Recovery = 101.55%
P 214.914†             10692.3      2541.7 µg/L         19.68      2541.7 ppb          19.68   0.77%
   QC value within limits for P 214.914  Recovery = 101.67%
Pb 220.353†             8356.6      513.29 µg/L         4.647      513.29 ppb          4.647   0.91%
   QC value within limits for Pb 220.353  Recovery = 102.66%
S 181.975 Axial†        1243.7      1023.8 µg/L         10.32      1023.8 ppb          10.32   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 102.38%
Sb 206.836†             3879.0      509.83 µg/L         2.858      509.83 ppb          2.858   0.56%
   QC value within limits for Sb 206.836  Recovery = 101.97%
Se 196.026†             1276.5         513 µg/L           3.3         513 ppb            3.3   0.64%
   QC value within limits for Se 196.026  Recovery = 102.63%
SiO2†                  50470.2      5377.7 µg/L         14.69      5377.7 ppb          14.69   0.27%
   QC value within limits for SiO2  Recovery = 100.56%
Si 251.611†           156191.5      2518.0 µg/L          4.82      2518.0 ppb           4.82   0.19%
   QC value within limits for Si 251.611  Recovery = 100.72%
Sn 189.927†             7366.3      511.68 µg/L         3.252      511.68 ppb          3.252   0.64%
   QC value within limits for Sn 189.927  Recovery = 102.34%
Sr 421.552†           223411.9      515.34 µg/L         4.086      515.34 ppb          4.086   0.79%
   QC value within limits for Sr 421.552  Recovery = 103.07%
Ti 334.940†           504561.7      504.83 µg/L         0.574      504.83 ppb          0.574   0.11%
   QC value within limits for Ti 334.940  Recovery = 100.97%
Tl 190.801†             3802.2      518.55 µg/L         4.742      518.55 ppb          4.742   0.91%
   QC value within limits for Tl 190.801  Recovery = 103.71%
U 409.014†              7645.4      509.51 µg/L         4.094      509.51 ppb          4.094   0.80%
   QC value within limits for U 409.014  Recovery = 101.90%
V 292.402†             94488.5      508.41 µg/L         0.257      508.41 ppb          0.257   0.05%
   QC value within limits for V 292.402  Recovery = 101.68%
Zn 213.857†            82002.4      504.60 µg/L         0.274      504.60 ppb          0.274   0.05%
   QC value within limits for Zn 213.857  Recovery = 100.92%
All analyte(s) passed QC.
```

Sequence No.: 18 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 17:42:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149223.8	149223.8	101	%			17:42:56
1	Al 396.153Radial†	-56.0	7.4	1.5345	µg/L	1.5345	ppb	17:43:16
1	Ca 317.933Radial†	662.0	-42.2	-2.5368	µg/L	-2.5368	ppb	17:43:16
1	Fe 238.204 Radial†	154.9	12.8	0.8607	µg/L	0.8607	ppb	17:43:16
1	K 766.490 Radial†	1607.1	279.3	114.93	µg/L	114.93	ppb	17:42:56
1	Mg 279.077 IEC†	184.4	13.9	5.6942	µg/L	5.6942	ppb	17:43:16
1	Na 589.592 Radial†	1613.7	392.0	59.428	µg/L	59.428	ppb	17:42:56
1	Sr 421.552†	-96.8	125.8	0.2902	µg/L	0.2902	ppb	17:42:56
1	Sc 361.383	1740851.3	1740851.3	99.189	%			17:44:04
1	Y 371.029	1055585.6	1055585.6	99.205	%			17:44:04
1	Ag 328.068†	3751.0	334.6	1.3196	µg/L	1.3196	ppb	17:44:06
1	As 188.979†	-17.7	-0.1	-0.0475	µg/L	-0.0475	ppb	17:44:26
1	B 249.677†	3297.4	94.0	1.5332	µg/L	1.5332	ppb	17:44:26
1	Ba 233.527†	-135.0	26.1	0.1138	µg/L	0.1138	ppb	17:44:26
1	Be 313.107†	-465.5	316.3	0.0913	µg/L	0.0913	ppb	17:44:06
1	Cd 226.502†	-102.2	7.0	0.0477	µg/L	0.0477	ppb	17:44:26
1	Co 228.616†	-169.2	1.9	0.0256	µg/L	0.0256	ppb	17:44:26
1	Cr 267.716†	161.7	-15.5	-0.1210	µg/L	-0.1210	ppb	17:44:26
1	Cu 324.752†	2892.8	127.5	0.5274	µg/L	0.5274	ppb	17:44:06
1	Mn 257.610†	188.2	14.2	0.0187	µg/L	0.0187	ppb	17:44:26
1	Mo 202.031†	-34.7	-0.2	-0.0073	µg/L	-0.0073	ppb	17:44:26
1	Ni 231.604†	-81.0	-3.7	-0.0471	µg/L	-0.0471	ppb	17:44:26
1	P 214.914†	16.6	11.8	2.8139	µg/L	2.8139	ppb	17:44:26
1	Pb 220.353†	73.7	-22.7	-1.3818	µg/L	-1.3818	ppb	17:44:26
1	S 181.975 Axial†	92.6	5.7	4.6757	µg/L	4.6757	ppb	17:44:26
1	Sb 206.836†	88.1	10.7	1.4077	µg/L	1.4077	ppb	17:44:26
1	Se 196.026†	26.9	13.5	5.40	µg/L	5.40	ppb	17:44:26
1	SiO2†	1702.4	-36.8	-3.9566	µg/L	-3.9566	ppb	17:44:26
1	Si 251.611†	805.5	-136.5	-2.2166	µg/L	-2.2166	ppb	17:44:26
1	Sn 189.927†	12.1	14.8	1.0220	µg/L	1.0220	ppb	17:44:26
1	Ti 334.940†	782.8	-96.4	-0.0921	µg/L	-0.0921	ppb	17:44:06
1	Tl 190.801†	-109.4	6.8	0.9176	µg/L	0.9176	ppb	17:44:26
1	U 409.014†	-471.7	-191.8	-11.993	µg/L	-11.993	ppb	17:44:06
1	V 292.402†	376.2	69.5	0.3602	µg/L	0.3602	ppb	17:44:06
1	Zn 213.857†	507.0	-13.4	-0.0835	µg/L	-0.0835	ppb	17:44:26
2	Sc RADIAL	151236.2	151236.2	102	%			17:43:18
2	Al 396.153Radial†	-21.0	42.4	8.7168	µg/L	8.7168	ppb	17:43:38
2	Ca 317.933Radial†	653.0	-59.6	-3.5888	µg/L	-3.5888	ppb	17:43:38
2	Fe 238.204 Radial†	152.7	8.6	0.5778	µg/L	0.5778	ppb	17:43:38
2	K 766.490 Radial†	1413.4	68.8	28.307	µg/L	28.307	ppb	17:43:18
2	Mg 279.077 IEC†	159.0	-13.3	-5.4565	µg/L	-5.4565	ppb	17:43:38
2	Na 589.592 Radial†	1467.8	228.1	34.616	µg/L	34.616	ppb	17:43:18
2	Sr 421.552†	-229.5	-2.7	-0.0061	µg/L	-0.0061	ppb	17:43:18
2	Sc 361.383	1789733.9	1789733.9	101.97	%			17:44:28
2	Y 371.029	1083381.9	1083381.9	101.82	%			17:44:28
2	Ag 328.068†	3704.7	185.9	0.7594	µg/L	0.7594	ppb	17:44:30
2	As 188.979†	-20.5	-2.5	-0.8602	µg/L	-0.8602	ppb	17:44:51
2	B 249.677†	3265.6	-27.9	-0.4549	µg/L	-0.4549	ppb	17:44:51
2	Ba 233.527†	-147.6	17.4	0.0763	µg/L	0.0763	ppb	17:44:51
2	Be 313.107†	-589.1	207.9	0.0663	µg/L	0.0663	ppb	17:44:30
2	Cd 226.502†	-88.1	23.7	0.1626	µg/L	0.1626	ppb	17:44:51
2	Co 228.616†	-190.6	-14.5	-0.1957	µg/L	-0.1957	ppb	17:44:51
2	Cr 267.716†	149.7	-31.7	-0.2772	µg/L	-0.2772	ppb	17:44:51
2	Cu 324.752†	2754.5	-87.8	-0.3595	µg/L	-0.3595	ppb	17:44:30
2	Mn 257.610†	189.1	9.9	0.0134	µg/L	0.0134	ppb	17:44:51
2	Mo 202.031†	-22.2	13.0	0.4125	µg/L	0.4125	ppb	17:44:51
2	Ni 231.604†	-63.7	15.4	0.1938	µg/L	0.1938	ppb	17:44:51
2	P 214.914†	14.2	9.0	2.1371	µg/L	2.1371	ppb	17:44:51
2	Pb 220.353†	93.1	-5.6	-0.3521	µg/L	-0.3521	ppb	17:44:51

2	S 181.975 Axial†	103.3	13.6	11.162 µg/L	11.162 ppb	17:44:51
2	Sb 206.836†	65.2	-14.2	-1.8489 µg/L	-1.8489 ppb	17:44:51
2	Se 196.026†	14.8	1.0	0.409 µg/L	0.409 ppb	17:44:51
2	SiO2†	1667.3	-118.1	-12.646 µg/L	-12.646 ppb	17:44:51
2	Si 251.611†	773.3	-190.4	-3.0841 µg/L	-3.0841 ppb	17:44:51
2	Sn 189.927†	-8.6	-5.9	-0.4098 µg/L	-0.4098 ppb	17:44:51
2	Ti 334.940†	770.5	-130.0	-0.1350 µg/L	-0.1350 ppb	17:44:30
2	Tl 190.801†	-116.4	2.9	0.3948 µg/L	0.3948 ppb	17:44:51
2	U 409.014†	-81.5	203.9	12.791 µg/L	12.791 ppb	17:44:30
2	V 292.402†	391.1	73.7	0.4028 µg/L	0.4028 ppb	17:44:30
2	Zn 213.857†	509.1	-25.3	-0.1579 µg/L	-0.1579 ppb	17:44:51
3	Sc RADIAL	153128.4	153128.4	104 %		17:43:40
3	Al 396.153Radial†	-66.6	-1.4	-0.2868 µg/L	-0.2868 ppb	17:44:00
3	Ca 317.933Radial†	663.9	-57.1	-3.4340 µg/L	-3.4340 ppb	17:44:00
3	Fe 238.204 Radial†	162.3	15.9	1.0724 µg/L	1.0724 ppb	17:44:00
3	K 766.490 Radial†	1397.3	36.1	14.869 µg/L	14.869 ppb	17:43:40
3	Mg 279.077 IEC†	188.4	13.1	5.3774 µg/L	5.3774 ppb	17:44:00
3	Na 589.592 Radial†	1362.5	108.7	16.495 µg/L	16.495 ppb	17:43:40
3	Sr 421.552†	-427.6	-191.1	-0.4409 µg/L	-0.4409 ppb	17:43:40
3	Sc 361.383	1735204.4	1735204.4	98.868 %		17:44:53
3	Y 371.029	1051337.1	1051337.1	98.806 %		17:44:53
3	Ag 328.068†	3394.5	-13.7	-0.0762 µg/L	-0.0762 ppb	17:44:55
3	As 188.979†	-6.8	10.8	3.7567 µg/L	3.7567 ppb	17:45:15
3	B 249.677†	3250.6	57.4	0.9360 µg/L	0.9360 ppb	17:45:15
3	Ba 233.527†	-155.9	4.5	0.0193 µg/L	0.0193 ppb	17:45:15
3	Be 313.107†	-860.6	-84.9	-0.0295 µg/L	-0.0295 ppb	17:44:55
3	Cd 226.502†	-85.7	23.3	0.1600 µg/L	0.1600 ppb	17:45:15
3	Co 228.616†	-156.5	14.1	0.1911 µg/L	0.1911 ppb	17:45:15
3	Cr 267.716†	170.5	-6.1	-0.0410 µg/L	-0.0410 ppb	17:45:15
3	Cu 324.752†	2758.1	0.7	-0.0075 µg/L	-0.0075 ppb	17:44:55
3	Mn 257.610†	168.3	-5.4	-0.0074 µg/L	-0.0074 ppb	17:45:15
3	Mo 202.031†	-34.1	0.3	0.0091 µg/L	0.0091 ppb	17:45:15
3	Ni 231.604†	-62.8	14.3	0.1804 µg/L	0.1804 ppb	17:45:15
3	P 214.914†	9.9	5.0	1.2075 µg/L	1.2075 ppb	17:45:15
3	Pb 220.353†	88.3	-7.7	-0.4611 µg/L	-0.4611 ppb	17:45:15
3	S 181.975 Axial†	91.9	5.3	4.3277 µg/L	4.3277 ppb	17:45:15
3	Sb 206.836†	76.8	-0.4	-0.0552 µg/L	-0.0552 ppb	17:45:15
3	Se 196.026†	9.6	-3.8	-1.55 µg/L	-1.55 ppb	17:45:15
3	SiO2†	1679.3	-54.6	-5.8537 µg/L	-5.8537 ppb	17:45:15
3	Si 251.611†	744.3	-195.8	-3.1739 µg/L	-3.1739 ppb	17:45:15
3	Sn 189.927†	6.5	9.2	0.6338 µg/L	0.6338 ppb	17:45:15
3	Ti 334.940†	819.1	-57.1	-0.0523 µg/L	-0.0523 ppb	17:44:55
3	Tl 190.801†	-108.9	6.9	0.9222 µg/L	0.9222 ppb	17:45:15
3	U 409.014†	-490.6	-212.5	-13.335 µg/L	-13.335 ppb	17:44:55
3	V 292.402†	223.9	-83.4	-0.4518 µg/L	-0.4518 ppb	17:44:55
3	Zn 213.857†	524.3	5.7	0.0343 µg/L	0.0343 ppb	17:45:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755263.2	100.01	%	1.709				1.71%
Sc RADIAL	151196.1	102	%	1.3				1.29%
Y 371.029	1063434.8	99.943	%	1.6357				1.64%
Ag 328.068†	168.9	0.6676	µg/L	0.70241	0.6676	ppb	0.70241	105.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.1	3.3215	µg/L	4.76035	3.3215	ppb	4.76035	143.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.7	0.9497	µg/L	2.46469	0.9497	ppb	2.46469	259.52%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.2	0.6714	µg/L	1.02013	0.6714	ppb	1.02013	151.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.0	0.0698	µg/L	0.04762	0.0698	ppb	0.04762	68.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	146.5	0.0427	µg/L	0.06375	0.0427	ppb	0.06375	149.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-53.0	-3.1865	µg/L	0.56796	-3.1865	ppb	0.56796	17.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	18.0	0.1234	µg/L	0.06561	0.1234	ppb	0.06561	53.17%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.5	0.0070	µg/L	0.19406	0.0070	ppb	0.19406	>999.9%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.8     -0.1464 µg/L       0.12014     -0.1464 ppb        0.12014  82.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               13.5      0.0535 µg/L       0.44662      0.0535 ppb        0.44662 835.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        12.4      0.8369 µg/L       0.24815      0.8369 ppb        0.24815  29.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        128.1     52.703 µg/L       54.3096     52.703 ppb        54.3096 103.05%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.6      1.8717 µg/L       6.34837      1.8717 ppb        6.34837 339.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.2      0.0082 µg/L       0.01382      0.0082 ppb        0.01382 167.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.3      0.1381 µg/L       0.23777      0.1381 ppb        0.23777 172.20%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       243.0     36.846 µg/L       21.5535     36.846 ppb        21.5535  58.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.7      0.1090 µg/L       0.13543      0.1090 ppb        0.13543 124.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                8.6      2.0528 µg/L       0.80647      2.0528 ppb        0.80647  39.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.0     -0.7317 µg/L       0.56567     -0.7317 ppb        0.56567  77.31%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.2      6.7217 µg/L       3.84909      6.7217 ppb        3.84909  57.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.3     -0.1655 µg/L       1.63108     -0.1655 ppb        1.63108 985.78%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.6        1.42 µg/L         3.583        1.42 ppb          3.583 252.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -69.9     -7.4854 µg/L       4.56863     -7.4854 ppb        4.56863  61.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -174.2     -2.8248 µg/L       0.52869     -2.8248 ppb        0.52869  18.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.0      0.4153 µg/L       0.74044      0.4153 ppb        0.74044 178.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.7     -0.0523 µg/L       0.36773     -0.0523 ppb        0.36773 703.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -94.5     -0.0932 µg/L       0.04138     -0.0932 ppb        0.04138  44.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.7449 µg/L       0.30318      0.7449 ppb        0.30318  40.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -66.8     -4.1790 µg/L      14.71171     -4.1790 ppb       14.71171 352.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                19.9      0.1037 µg/L       0.48160      0.1037 ppb        0.48160 464.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -11.0     -0.0690 µg/L       0.09694     -0.0690 ppb        0.09694 140.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 18:00:22
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	149963.6	149963.6	101	%			18:00:56
1	Al 396.153Radial†	25208.6	24912.8	5110.3	µg/L	5110.3	ppb	18:00:56
1	Ca 317.933Radial†	86326.3	84400.0	5078.1	µg/L	5078.1	ppb	18:00:56
1	Fe 238.204 Radial†	76400.5	75172.7	5058.3	µg/L	5058.3	ppb	18:00:56
1	K 766.490 Radial†	13741.6	12233.3	5030.6	µg/L	5030.6	ppb	18:00:56
1	Mg 279.077 IEC†	12974.7	12621.3	5185.5	µg/L	5185.5	ppb	18:00:56
1	Na 589.592 Radial†	68473.2	66292.3	10062	µg/L	10062	ppb	18:00:56
1	Sr 421.552†	223153.6	220200.1	507.93	µg/L	507.93	ppb	18:00:54
1	Sc 361.383	1727309.1	1727309.1	98.418	%			18:01:08
1	Y 371.029	1034162.5	1034162.5	97.192	%			18:01:08
1	Ag 328.068†	127504.0	126106.7	507.56	µg/L	507.56	ppb	18:01:08
1	As 188.979†	1389.4	1429.4	506.06	µg/L	506.06	ppb	18:01:29
1	B 249.677†	33211.6	30515.2	495.77	µg/L	495.77	ppb	18:01:08
1	Ba 233.527†	113569.1	115556.9	503.56	µg/L	503.56	ppb	18:01:08
1	Be 313.107†	1649297.9	1676597.6	503.31	µg/L	503.31	ppb	18:01:08
1	Cd 226.502†	71908.8	73174.8	502.13	µg/L	502.13	ppb	18:01:08
1	Co 228.616†	36707.5	37470.0	507.04	µg/L	507.04	ppb	18:01:08
1	Cr 267.716†	58723.3	59488.8	501.11	µg/L	501.11	ppb	18:01:08
1	Cu 324.752†	119828.4	118965.8	502.87	µg/L	502.87	ppb	18:01:08
1	Mn 257.610†	371619.2	377417.8	504.24	µg/L	504.24	ppb	18:01:08
1	Mo 202.031†	15635.4	15921.5	506.91	µg/L	506.91	ppb	18:01:29
1	Ni 231.604†	39521.0	40234.3	506.06	µg/L	506.06	ppb	18:01:08
1	P 214.914†	10443.9	10606.8	2521.3	µg/L	2521.3	ppb	18:01:29
1	Pb 220.353†	8236.3	8271.7	508.08	µg/L	508.08	ppb	18:01:29
1	S 181.975 Axial†	1305.1	1238.3	1019.4	µg/L	1019.4	ppb	18:01:29
1	Sb 206.836†	3867.4	3851.5	506.23	µg/L	506.23	ppb	18:01:29
1	Se 196.026†	1260.5	1267.2	509	µg/L	509	ppb	18:01:29
1	SiO2†	51213.3	50283.5	5357.8	µg/L	5357.8	ppb	18:01:08
1	Si 251.611†	154028.3	155555.8	2507.8	µg/L	2507.8	ppb	18:01:08
1	Sn 189.927†	7184.1	7302.2	507.24	µg/L	507.24	ppb	18:01:29
1	Ti 334.940†	495803.0	502887.9	503.16	µg/L	503.16	ppb	18:01:08
1	Tl 190.801†	3592.4	3767.2	513.82	µg/L	513.82	ppb	18:01:29
1	U 409.014†	7260.0	7660.4	510.36	µg/L	510.36	ppb	18:01:08
1	V 292.402†	93039.1	94225.0	506.98	µg/L	506.98	ppb	18:01:08
1	Zn 213.857†	80748.7	81522.2	501.64	µg/L	501.64	ppb	18:01:08
2	Sc RADIAL	150679.1	150679.1	102	%			18:01:00
2	Al 396.153Radial†	25393.4	24976.1	5123.3	µg/L	5123.3	ppb	18:01:00
2	Ca 317.933Radial†	87448.3	85096.7	5120.1	µg/L	5120.1	ppb	18:01:00
2	Fe 238.204 Radial†	77162.3	75562.5	5084.5	µg/L	5084.5	ppb	18:01:00
2	K 766.490 Radial†	14059.0	12480.3	5132.3	µg/L	5132.3	ppb	18:01:00
2	Mg 279.077 IEC†	13106.1	12689.5	5213.5	µg/L	5213.5	ppb	18:01:00
2	Na 589.592 Radial†	69122.9	66609.2	10110	µg/L	10110	ppb	18:01:00
2	Sr 421.552†	224776.0	220747.3	509.19	µg/L	509.19	ppb	18:00:58
2	Sc 361.383	1719911.6	1719911.6	97.996	%			18:01:32
2	Y 371.029	1029896.4	1029896.4	96.791	%			18:01:32
2	Ag 328.068†	126855.3	126002.0	507.13	µg/L	507.13	ppb	18:01:32
2	As 188.979†	1392.6	1438.8	509.32	µg/L	509.32	ppb	18:01:52
2	B 249.677†	33255.8	30705.4	498.87	µg/L	498.87	ppb	18:01:32
2	Ba 233.527†	112718.1	115184.9	501.94	µg/L	501.94	ppb	18:01:32
2	Be 313.107†	1638841.3	1673135.1	502.27	µg/L	502.27	ppb	18:01:32
2	Cd 226.502†	71582.0	73155.7	501.99	µg/L	501.99	ppb	18:01:32
2	Co 228.616†	36493.4	37412.0	506.26	µg/L	506.26	ppb	18:01:32
2	Cr 267.716†	58378.6	59393.7	500.31	µg/L	500.31	ppb	18:01:32
2	Cu 324.752†	118925.8	118568.4	501.20	µg/L	501.20	ppb	18:01:32
2	Mn 257.610†	369553.2	376933.6	503.60	µg/L	503.60	ppb	18:01:32
2	Mo 202.031†	15590.5	15944.0	507.63	µg/L	507.63	ppb	18:01:52
2	Ni 231.604†	39259.9	40140.5	504.88	µg/L	504.88	ppb	18:01:32
2	P 214.914†	10376.2	10583.3	2515.7	µg/L	2515.7	ppb	18:01:52
2	Pb 220.353†	8224.0	8295.2	509.52	µg/L	509.52	ppb	18:01:52

2	S 181.975 Axial†	1280.5	1219.0	1003.5 µg/L	1003.5 ppb	18:01:52
2	Sb 206.836†	3875.7	3876.8	509.58 µg/L	509.58 ppb	18:01:52
2	Se 196.026†	1257.5	1269.6	510 µg/L	510 ppb	18:01:52
2	SiO2†	50739.1	50023.4	5330.0 µg/L	5330.0 ppb	18:01:32
2	Si 251.611†	152955.9	155134.6	2500.9 µg/L	2500.9 ppb	18:01:32
2	Sn 189.927†	7173.1	7322.3	508.62 µg/L	508.62 ppb	18:01:52
2	Ti 334.940†	492455.2	501638.5	501.91 µg/L	501.91 ppb	18:01:32
2	Tl 190.801†	3592.4	3782.9	515.92 µg/L	515.92 ppb	18:01:52
2	U 409.014†	7198.4	7629.3	508.35 µg/L	508.35 ppb	18:01:32
2	V 292.402†	92465.3	94046.0	506.03 µg/L	506.03 ppb	18:01:32
2	Zn 213.857†	80075.4	81188.1	499.57 µg/L	499.57 ppb	18:01:32
3	Sc RADIAL	150459.0	150459.0	102 %		18:01:04
3	Al 396.153Radial†	25239.2	24861.0	5099.8 µg/L	5099.8 ppb	18:01:04
3	Ca 317.933Radial†	86610.0	84398.5	5078.1 µg/L	5078.1 ppb	18:01:04
3	Fe 238.204 Radial†	76232.2	74759.3	5030.5 µg/L	5030.5 ppb	18:01:04
3	K 766.490 Radial†	14112.6	12553.2	5162.3 µg/L	5162.3 ppb	18:01:04
3	Mg 279.077 IEC†	12790.6	12398.3	5094.0 µg/L	5094.0 ppb	18:01:04
3	Na 589.592 Radial†	68460.4	66057.5	10026 µg/L	10026 ppb	18:01:04
3	Sr 421.552†	225258.6	221544.0	511.03 µg/L	511.03 ppb	18:01:02
3	Sc 361.383	1747302.6	1747302.6	99.557 %		18:01:55
3	Y 371.029	1046057.1	1046057.1	98.310 %		18:01:55
3	Ag 328.068†	127799.7	124921.3	502.82 µg/L	502.82 ppb	18:01:55
3	As 188.979†	1396.1	1420.0	502.76 µg/L	502.76 ppb	18:02:15
3	B 249.677†	33651.3	30570.7	496.68 µg/L	496.68 ppb	18:01:55
3	Ba 233.527†	114681.4	115353.8	502.68 µg/L	502.68 ppb	18:01:55
3	Be 313.107†	1666731.4	1674933.2	502.81 µg/L	502.81 ppb	18:01:55
3	Cd 226.502†	72567.6	73000.5	500.93 µg/L	500.93 ppb	18:01:55
3	Co 228.616†	36961.9	37298.8	504.73 µg/L	504.73 ppb	18:01:55
3	Cr 267.716†	59318.7	59404.1	500.39 µg/L	500.39 ppb	18:01:55
3	Cu 324.752†	120890.6	118639.6	501.49 µg/L	501.49 ppb	18:01:55
3	Mn 257.610†	374818.4	376310.6	502.77 µg/L	502.77 ppb	18:01:55
3	Mo 202.031†	15682.2	15786.7	502.62 µg/L	502.62 ppb	18:02:15
3	Ni 231.604†	39775.3	40030.2	503.49 µg/L	503.49 ppb	18:01:55
3	P 214.914†	10469.8	10511.4	2498.6 µg/L	2498.6 ppb	18:02:15
3	Pb 220.353†	8305.7	8245.7	506.48 µg/L	506.48 ppb	18:02:15
3	S 181.975 Axial†	1304.1	1222.2	1006.1 µg/L	1006.1 ppb	18:02:15
3	Sb 206.836†	3884.1	3823.3	502.48 µg/L	502.48 ppb	18:02:15
3	Se 196.026†	1277.7	1269.8	511 µg/L	511 ppb	18:02:15
3	SiO2†	51665.7	50142.4	5342.9 µg/L	5342.9 ppb	18:01:55
3	Si 251.611†	155152.4	154894.1	2497.1 µg/L	2497.1 ppb	18:01:55
3	Sn 189.927†	7193.0	7227.5	502.07 µg/L	502.07 ppb	18:02:15
3	Ti 334.940†	500401.0	501742.0	502.02 µg/L	502.02 ppb	18:01:55
3	Tl 190.801†	3619.4	3752.6	511.84 µg/L	511.84 ppb	18:02:15
3	U 409.014†	7325.0	7641.3	509.04 µg/L	509.04 ppb	18:01:55
3	V 292.402†	93720.4	93827.6	504.83 µg/L	504.83 ppb	18:01:55
3	Zn 213.857†	81318.5	81155.7	499.38 µg/L	499.38 ppb	18:01:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731507.8	98.657	%	0.8074				0.82%
Sc RADIAL	150367.2	102	%	0.2				0.24%
Y 371.029	1036705.4	97.431	%	0.7871				0.81%
Ag 328.068†	125676.6	505.84	µg/L	2.620	505.84	ppb	2.620	0.52%
QC value within limits for Ag 328.068 Recovery = 101.17%								
Al 396.153Radial†	24916.6	5111.1	µg/L	11.77	5111.1	ppb	11.77	0.23%
QC value within limits for Al 396.153Radial Recovery = 102.22%								
As 188.979†	1429.4	506.05	µg/L	3.279	506.05	ppb	3.279	0.65%
QC value within limits for As 188.979 Recovery = 101.21%								
B 249.677†	30597.1	497.11	µg/L	1.595	497.11	ppb	1.595	0.32%
QC value within limits for B 249.677 Recovery = 99.42%								
Ba 233.527†	115365.2	502.73	µg/L	0.812	502.73	ppb	0.812	0.16%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	1674888.6	502.79	µg/L	0.520	502.79	ppb	0.520	0.10%
QC value within limits for Be 313.107 Recovery = 100.56%								
Ca 317.933Radial†	84631.7	5092.1	µg/L	24.23	5092.1	ppb	24.23	0.48%
QC value within limits for Ca 317.933Radial Recovery = 101.84%								
Cd 226.502†	73110.3	501.68	µg/L	0.654	501.68	ppb	0.654	0.13%
QC value within limits for Cd 226.502 Recovery = 100.34%								
Co 228.616†	37393.6	506.01	µg/L	1.177	506.01	ppb	1.177	0.23%

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   QC value within limits for Co 228.616  Recovery = 101.20%
Cr 267.716†          59428.9      500.60 µg/L        0.439      500.60 ppb        0.439   0.09%
   QC value within limits for Cr 267.716  Recovery = 100.12%
Cu 324.752†         118724.6      501.85 µg/L        0.894      501.85 ppb        0.894   0.18%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†   75164.8      5057.7 µg/L        27.03      5057.7 ppb        27.03   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.15%
K 766.490 Radial†    12422.3      5108.4 µg/L        69.01      5108.4 ppb        69.01   1.35%
   QC value within limits for K 766.490 Radial  Recovery = 102.17%
Mg 279.077 IEC†      12569.7      5164.3 µg/L        62.53      5164.3 ppb        62.53   1.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.29%
Mn 257.610†         376887.3      503.54 µg/L        0.740      503.54 ppb        0.740   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.71%
Mo 202.031†          15884.1      505.72 µg/L        2.708      505.72 ppb        2.708   0.54%
   QC value within limits for Mo 202.031  Recovery = 101.14%
Na 589.592 Radial†   66319.7       10066 µg/L         42.1       10066 ppb         42.1   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 100.66%
Ni 231.604†          40135.0      504.81 µg/L        1.285      504.81 ppb        1.285   0.25%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†           10567.2      2511.9 µg/L        11.84      2511.9 ppb        11.84   0.47%
   QC value within limits for P 214.914  Recovery = 100.47%
Pb 220.353†           8270.9      508.03 µg/L        1.522      508.03 ppb        1.522   0.30%
   QC value within limits for Pb 220.353  Recovery = 101.61%
S 181.975 Axial†      1226.5      1009.7 µg/L         8.51      1009.7 ppb         8.51   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 100.97%
Sb 206.836†           3850.5      506.10 µg/L        3.554      506.10 ppb        3.554   0.70%
   QC value within limits for Sb 206.836  Recovery = 101.22%
Se 196.026†           1268.9         510 µg/L          0.6         510 ppb          0.6   0.12%
   QC value within limits for Se 196.026  Recovery = 102.03%
SiO2†                50149.7      5343.6 µg/L        13.94      5343.6 ppb        13.94   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†         155194.9      2501.9 µg/L         5.38      2501.9 ppb         5.38   0.22%
   QC value within limits for Si 251.611  Recovery = 100.08%
Sn 189.927†           7284.0      505.98 µg/L        3.457      505.98 ppb        3.457   0.68%
   QC value within limits for Sn 189.927  Recovery = 101.20%
Sr 421.552†         220830.5      509.38 µg/L        1.559      509.38 ppb        1.559   0.31%
   QC value within limits for Sr 421.552  Recovery = 101.88%
Ti 334.940†         502089.5      502.36 µg/L        0.693      502.36 ppb        0.693   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.47%
Tl 190.801†           3767.6      513.86 µg/L        2.039      513.86 ppb        2.039   0.40%
   QC value within limits for Tl 190.801  Recovery = 102.77%
U 409.014†            7643.7      509.25 µg/L        1.021      509.25 ppb        1.021   0.20%
   QC value within limits for U 409.014  Recovery = 101.85%
V 292.402†           94032.9      505.95 µg/L        1.080      505.95 ppb        1.080   0.21%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†          81288.7      500.20 µg/L        1.251      500.20 ppb        1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 100.04%
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 18:02:23
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	151780.3	151780.3	103	%			18:02:52
1	Al 396.153Radial†	-40.0	24.0	4.9524	µg/L	4.9524	ppb	18:03:12
1	Ca 317.933Radial†	686.4	-29.4	-1.7696	µg/L	-1.7696	ppb	18:03:12
1	Fe 238.204 Radial†	138.6	-5.7	-0.3811	µg/L	-0.3811	ppb	18:03:12
1	K 766.490 Radial†	1436.1	85.9	35.363	µg/L	35.363	ppb	18:02:52
1	Mg 279.077 IEC†	184.5	10.9	4.4785	µg/L	4.4785	ppb	18:03:12
1	Na 589.592 Radial†	1347.1	105.4	15.979	µg/L	15.979	ppb	18:02:52
1	Sr 421.552†	-270.8	-42.1	-0.0972	µg/L	-0.0972	ppb	18:02:52
1	Sc 361.383	1751686.4	1751686.4	99.807	%			18:04:00
1	Y 371.029	1062037.8	1062037.8	99.811	%			18:04:00
1	Ag 328.068†	3543.8	103.6	0.4081	µg/L	0.4081	ppb	18:04:02
1	As 188.979†	-6.7	11.0	3.8356	µg/L	3.8356	ppb	18:04:22
1	B 249.677†	3203.3	-20.8	-0.3392	µg/L	-0.3392	ppb	18:04:22
1	Ba 233.527†	-132.2	29.7	0.1288	µg/L	0.1288	ppb	18:04:22
1	Be 313.107†	-392.0	392.8	0.1180	µg/L	0.1180	ppb	18:04:02
1	Cd 226.502†	-121.9	-12.1	-0.0830	µg/L	-0.0830	ppb	18:04:22
1	Co 228.616†	-168.7	3.4	0.0467	µg/L	0.0467	ppb	18:04:22
1	Cr 267.716†	150.1	-28.2	-0.2379	µg/L	-0.2379	ppb	18:04:22
1	Cu 324.752†	2898.1	114.8	0.4843	µg/L	0.4843	ppb	18:04:02
1	Mn 257.610†	183.2	8.0	0.0105	µg/L	0.0105	ppb	18:04:22
1	Mo 202.031†	-44.8	-10.1	-0.3221	µg/L	-0.3221	ppb	18:04:22
1	Ni 231.604†	-60.8	17.0	0.2132	µg/L	0.2132	ppb	18:04:22
1	P 214.914†	30.0	25.0	5.9711	µg/L	5.9711	ppb	18:04:22
1	Pb 220.353†	97.6	0.8	0.0491	µg/L	0.0491	ppb	18:04:22
1	S 181.975 Axial†	102.8	15.3	12.573	µg/L	12.573	ppb	18:04:22
1	Sb 206.836†	69.7	-8.2	-1.0769	µg/L	-1.0769	ppb	18:04:22
1	Se 196.026†	1.0	-12.6	-5.04	µg/L	-5.04	ppb	18:04:22
1	SiO2†	1676.0	-73.9	-7.9004	µg/L	-7.9004	ppb	18:04:22
1	Si 251.611†	923.1	-23.8	-0.3831	µg/L	-0.3831	ppb	18:04:02
1	Sn 189.927†	3.9	6.5	0.4467	µg/L	0.4467	ppb	18:04:22
1	Ti 334.940†	772.4	-111.7	-0.1124	µg/L	-0.1124	ppb	18:04:02
1	Tl 190.801†	-112.4	4.5	0.5986	µg/L	0.5986	ppb	18:04:22
1	U 409.014†	-275.1	8.2	0.4912	µg/L	0.4912	ppb	18:04:02
1	V 292.402†	243.1	-66.3	-0.3559	µg/L	-0.3559	ppb	18:04:02
1	Zn 213.857†	522.7	-0.8	-0.0070	µg/L	-0.0070	ppb	18:04:22
2	Sc RADIAL	150352.0	150352.0	102	%			18:03:14
2	Al 396.153Radial†	-78.4	-14.2	-2.9660	µg/L	-2.9660	ppb	18:03:34
2	Ca 317.933Radial†	672.3	-37.0	-2.2240	µg/L	-2.2240	ppb	18:03:34
2	Fe 238.204 Radial†	139.7	-3.3	-0.2234	µg/L	-0.2234	ppb	18:03:34
2	K 766.490 Radial†	1509.0	170.9	70.320	µg/L	70.320	ppb	18:03:14
2	Mg 279.077 IEC†	164.0	-7.5	-3.0724	µg/L	-3.0724	ppb	18:03:34
2	Na 589.592 Radial†	1365.9	136.4	20.649	µg/L	20.649	ppb	18:03:14
2	Sr 421.552†	-117.2	106.4	0.2454	µg/L	0.2454	ppb	18:03:14
2	Sc 361.383	1757278.8	1757278.8	100.13	%			18:04:24
2	Y 371.029	1064446.3	1064446.3	100.04	%			18:04:24
2	Ag 328.068†	3368.6	-82.7	-0.3398	µg/L	-0.3398	ppb	18:04:26
2	As 188.979†	-14.3	3.4	1.1966	µg/L	1.1966	ppb	18:04:47
2	B 249.677†	3190.2	-44.1	-0.7190	µg/L	-0.7190	ppb	18:04:47
2	Ba 233.527†	-159.9	2.4	0.0111	µg/L	0.0111	ppb	18:04:47
2	Be 313.107†	-887.5	-100.8	-0.0345	µg/L	-0.0345	ppb	18:04:26
2	Cd 226.502†	-82.6	27.6	0.1892	µg/L	0.1892	ppb	18:04:47
2	Co 228.616†	-168.5	4.1	0.0555	µg/L	0.0555	ppb	18:04:47
2	Cr 267.716†	132.4	-46.4	-0.3795	µg/L	-0.3795	ppb	18:04:47
2	Cu 324.752†	2643.9	-148.3	-0.6367	µg/L	-0.6367	ppb	18:04:26
2	Mn 257.610†	145.3	-30.4	-0.0405	µg/L	-0.0405	ppb	18:04:47
2	Mo 202.031†	-13.5	21.3	0.6781	µg/L	0.6781	ppb	18:04:47
2	Ni 231.604†	-77.1	0.9	0.0111	µg/L	0.0111	ppb	18:04:47
2	P 214.914†	12.5	7.5	1.7862	µg/L	1.7862	ppb	18:04:47
2	Pb 220.353†	85.7	-11.4	-0.6841	µg/L	-0.6841	ppb	18:04:47

2	S 181.975 Axial†	89.0	1.2	1.0157 µg/L	1.0157 ppb	18:04:47
2	Sb 206.836†	71.9	-6.3	-0.8105 µg/L	-0.8105 ppb	18:04:47
2	Se 196.026†	20.3	6.7	2.68 µg/L	2.68 ppb	18:04:47
2	SiO2†	1697.0	-58.3	-6.2667 µg/L	-6.2667 ppb	18:04:47
2	Si 251.611†	933.3	-16.5	-0.2813 µg/L	-0.2813 ppb	18:04:26
2	Sn 189.927†	8.4	10.9	0.7577 µg/L	0.7577 ppb	18:04:47
2	Ti 334.940†	879.7	-7.0	-0.0010 µg/L	-0.0010 ppb	18:04:26
2	Tl 190.801†	-114.8	2.4	0.3234 µg/L	0.3234 ppb	18:04:47
2	U 409.014†	-507.2	-222.8	-13.924 µg/L	-13.924 ppb	18:04:26
2	V 292.402†	406.8	96.4	0.5080 µg/L	0.5080 ppb	18:04:26
2	Zn 213.857†	527.3	2.1	0.0134 µg/L	0.0134 ppb	18:04:47
3	Sc RADIAL	152318.3	152318.3	103 %		18:03:36
3	Al 396.153Radial†	-73.0	-8.0	-1.6470 µg/L	-1.6470 ppb	18:03:56
3	Ca 317.933Radial†	695.1	-23.4	-1.4076 µg/L	-1.4076 ppb	18:03:56
3	Fe 238.204 Radial†	147.7	2.7	0.1805 µg/L	0.1805 ppb	18:03:56
3	K 766.490 Radial†	1471.4	115.2	47.414 µg/L	47.414 ppb	18:03:36
3	Mg 279.077 IEC†	138.4	-34.5	-14.137 µg/L	-14.137 ppb	18:03:56
3	Na 589.592 Radial†	1413.1	164.8	24.982 µg/L	24.982 ppb	18:03:36
3	Sr 421.552†	-177.7	49.2	0.1135 µg/L	0.1135 ppb	18:03:36
3	Sc 361.383	1761711.7	1761711.7	100.38 %		18:04:49
3	Y 371.029	1067001.7	1067001.7	100.28 %		18:04:49
3	Ag 328.068†	3547.8	87.4	0.3472 µg/L	0.3472 ppb	18:04:51
3	As 188.979†	-20.0	-2.2	-0.7857 µg/L	-0.7857 ppb	18:05:11
3	B 249.677†	3230.5	-12.0	-0.1957 µg/L	-0.1957 ppb	18:05:11
3	Ba 233.527†	-162.5	0.3	0.0006 µg/L	0.0006 ppb	18:05:11
3	Be 313.107†	-908.1	-119.1	-0.0335 µg/L	-0.0335 ppb	18:04:51
3	Cd 226.502†	-93.1	17.3	0.1188 µg/L	0.1188 ppb	18:05:11
3	Co 228.616†	-181.8	-8.7	-0.1171 µg/L	-0.1171 ppb	18:05:11
3	Cr 267.716†	129.9	-49.1	-0.4200 µg/L	-0.4200 ppb	18:05:11
3	Cu 324.752†	2666.8	-132.2	-0.5513 µg/L	-0.5513 ppb	18:04:51
3	Mn 257.610†	186.9	10.6	0.0148 µg/L	0.0148 ppb	18:05:11
3	Mo 202.031†	-35.8	-0.9	-0.0304 µg/L	-0.0304 ppb	18:05:11
3	Ni 231.604†	-74.5	3.7	0.0466 µg/L	0.0466 ppb	18:05:11
3	P 214.914†	5.9	0.9	0.2218 µg/L	0.2218 ppb	18:05:11
3	Pb 220.353†	74.9	-22.4	-1.3753 µg/L	-1.3753 ppb	18:05:11
3	S 181.975 Axial†	84.5	-3.5	-2.8453 µg/L	-2.8453 ppb	18:05:11
3	Sb 206.836†	72.9	-5.4	-0.7086 µg/L	-0.7086 ppb	18:05:11
3	Se 196.026†	13.4	-0.2	-0.085 µg/L	-0.085 ppb	18:05:11
3	SiO2†	1672.5	-86.9	-9.3016 µg/L	-9.3016 ppb	18:05:11
3	Si 251.611†	708.7	-242.6	-3.9283 µg/L	-3.9283 ppb	18:04:51
3	Sn 189.927†	1.8	4.4	0.3022 µg/L	0.3022 ppb	18:05:11
3	Ti 334.940†	729.1	-159.2	-0.1613 µg/L	-0.1613 ppb	18:04:51
3	Tl 190.801†	-107.3	10.2	1.3632 µg/L	1.3632 ppb	18:05:11
3	U 409.014†	-165.7	118.7	7.3880 µg/L	7.3880 ppb	18:04:51
3	V 292.402†	163.6	-146.8	-0.7764 µg/L	-0.7764 ppb	18:04:51
3	Zn 213.857†	510.6	-15.9	-0.0986 µg/L	-0.0986 ppb	18:05:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1756892.3	100.10	%	0.286				0.29%
Sc RADIAL	151483.5	102	%	0.7				0.67%
Y 371.029	1064495.3	100.04	%	0.233				0.23%
Ag 328.068†	36.1	0.1385	µg/L	0.41530	0.1385	ppb	0.41530	299.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.6	0.1131	µg/L	4.24252	0.1131	ppb	4.24252	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.1	1.4155	µg/L	2.31844	1.4155	ppb	2.31844	163.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-25.6	-0.4180	µg/L	0.27043	-0.4180	ppb	0.27043	64.70%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.0468	µg/L	0.07118	0.0468	ppb	0.07118	151.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.6	0.0167	µg/L	0.08778	0.0167	ppb	0.08778	525.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-29.9	-1.8004	µg/L	0.40907	-1.8004	ppb	0.40907	22.72%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0750	µg/L	0.14131	0.0750	ppb	0.14131	188.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.4	-0.0050	µg/L	0.09722	-0.0050	ppb	0.09722	>999.9%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -41.2     -0.3458 µg/L       0.09558     -0.3458 ppb        0.09558  27.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -55.2     -0.2346 µg/L       0.62400     -0.2346 ppb        0.62400 266.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.1     -0.1413 µg/L       0.28967     -0.1413 ppb        0.28967 204.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        124.0      51.032 µg/L       17.7573      51.032 ppb        17.7573  34.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.4     -4.2437 µg/L       9.36298     -4.2437 ppb        9.36298 220.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -3.9     -0.0051 µg/L       0.03077     -0.0051 ppb        0.03077 603.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.4      0.1085 µg/L       0.51436      0.1085 ppb        0.51436 474.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       135.5      20.537 µg/L        4.5028      20.537 ppb         4.5028  21.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.2      0.0903 µg/L       0.10791      0.0903 ppb        0.10791 119.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.1      2.6597 µg/L       2.97253      2.6597 ppb        2.97253 111.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.0     -0.6701 µg/L       0.71232     -0.6701 ppb        0.71232 106.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.4      3.5812 µg/L       8.02299      3.5812 ppb        8.02299 224.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.7     -0.8653 µg/L       0.19019     -0.8653 ppb        0.19019  21.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.0      -0.816 µg/L        3.9132      -0.816 ppb         3.9132 479.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -73.0     -7.8229 µg/L       1.51896     -7.8229 ppb        1.51896  19.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -94.3     -1.5309 µg/L       2.07685     -1.5309 ppb        2.07685 135.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.3      0.5022 µg/L       0.23278      0.5022 ppb        0.23278  46.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               37.8      0.0872 µg/L       0.17279      0.0872 ppb        0.17279 198.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -92.6     -0.0916 µg/L       0.08215     -0.0916 ppb        0.08215  89.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.7      0.7617 µg/L       0.53874      0.7617 ppb        0.53874  70.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -32.0     -2.0149 µg/L      10.87474     -2.0149 ppb       10.87474 539.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -38.9     -0.2081 µg/L       0.65482     -0.2081 ppb        0.65482 314.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -4.9     -0.0308 µg/L       0.05967     -0.0308 ppb        0.05967 194.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 18:22:00
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	152022.9	152022.9	103	%			18:22:34
1	Al 396.153Radial†	25496.4	24856.1	5098.8	µg/L	5098.8	ppb	18:22:34
1	Ca 317.933Radial†	87543.5	84430.9	5080.0	µg/L	5080.0	ppb	18:22:34
1	Fe 238.204 Radial†	77294.6	75022.0	5048.1	µg/L	5048.1	ppb	18:22:34
1	K 766.490 Radial†	13921.2	12224.5	5027.0	µg/L	5027.0	ppb	18:22:34
1	Mg 279.077 IEC†	13080.9	12551.3	5156.7	µg/L	5156.7	ppb	18:22:34
1	Na 589.592 Radial†	69459.6	66337.1	10069	µg/L	10069	ppb	18:22:34
1	Sr 421.552†	227477.8	221425.1	510.75	µg/L	510.75	ppb	18:22:32
1	Sc 361.383	1763625.0	1763625.0	100.49	%			18:23:01
1	Y 371.029	1054867.8	1054867.8	99.138	%			18:23:01
1	Ag 328.068†	129454.6	125380.1	504.66	µg/L	504.66	ppb	18:23:01
1	As 188.979†	1415.8	1426.6	505.07	µg/L	505.07	ppb	18:23:21
1	B 249.677†	33989.2	30594.1	497.05	µg/L	497.05	ppb	18:23:01
1	Ba 233.527†	115735.7	115337.0	502.60	µg/L	502.60	ppb	18:23:01
1	Be 313.107†	1683988.9	1676612.7	503.31	µg/L	503.31	ppb	18:23:01
1	Cd 226.502†	73644.3	73397.4	503.65	µg/L	503.65	ppb	18:23:01
1	Co 228.616†	37472.4	37463.2	506.95	µg/L	506.95	ppb	18:23:01
1	Cr 267.716†	59994.2	59524.9	501.40	µg/L	501.40	ppb	18:23:01
1	Cu 324.752†	122028.0	118647.7	501.54	µg/L	501.54	ppb	18:23:01
1	Mn 257.610†	379073.8	377061.0	503.77	µg/L	503.77	ppb	18:23:01
1	Mo 202.031†	15803.3	15761.4	501.82	µg/L	501.82	ppb	18:23:21
1	Ni 231.604†	40212.3	40095.3	504.31	µg/L	504.31	ppb	18:23:01
1	P 214.914†	10549.5	10493.4	2494.3	µg/L	2494.3	ppb	18:23:21
1	Pb 220.353†	8356.8	8219.3	504.85	µg/L	504.85	ppb	18:23:21
1	S 181.975 Axial†	1313.0	1218.9	1003.4	µg/L	1003.4	ppb	18:23:21
1	Sb 206.836†	3928.2	3831.1	503.48	µg/L	503.48	ppb	18:23:21
1	Se 196.026†	1248.8	1229.2	494	µg/L	494	ppb	18:23:21
1	SiO2†	52239.1	50232.8	5352.6	µg/L	5352.6	ppb	18:23:01
1	Si 251.611†	157026.6	155316.8	2504.0	µg/L	2504.0	ppb	18:23:01
1	Sn 189.927†	7284.3	7251.5	503.72	µg/L	503.72	ppb	18:23:21
1	Ti 334.940†	504471.7	501141.1	501.41	µg/L	501.41	ppb	18:23:01
1	Tl 190.801†	3644.8	3744.2	510.70	µg/L	510.70	ppb	18:23:21
1	U 409.014†	7576.4	7823.4	520.45	µg/L	520.45	ppb	18:23:01
1	V 292.402†	94606.6	93838.3	504.89	µg/L	504.89	ppb	18:23:01
1	Zn 213.857†	82315.3	81391.8	500.84	µg/L	500.84	ppb	18:23:01
2	Sc RADIAL	151202.6	151202.6	102	%			18:22:38
2	Al 396.153Radial†	25369.7	24866.7	5100.8	µg/L	5100.8	ppb	18:22:38
2	Ca 317.933Radial†	87583.7	84932.1	5110.2	µg/L	5110.2	ppb	18:22:38
2	Fe 238.204 Radial†	77189.2	75326.6	5068.6	µg/L	5068.6	ppb	18:22:38
2	K 766.490 Radial†	14138.0	12509.8	5144.4	µg/L	5144.4	ppb	18:22:38
2	Mg 279.077 IEC†	13178.2	12715.5	5224.1	µg/L	5224.1	ppb	18:22:38
2	Na 589.592 Radial†	69482.0	66725.5	10127	µg/L	10127	ppb	18:22:38
2	Sr 421.552†	224799.5	220006.7	507.48	µg/L	507.48	ppb	18:22:36
2	Sc 361.383	1754923.8	1754923.8	99.991	%			18:23:24
2	Y 371.029	1049931.4	1049931.4	98.674	%			18:23:24
2	Ag 328.068†	128312.0	124876.1	502.61	µg/L	502.61	ppb	18:23:24
2	As 188.979†	1424.7	1442.6	510.62	µg/L	510.62	ppb	18:23:44
2	B 249.677†	33694.4	30467.0	494.99	µg/L	494.99	ppb	18:23:24
2	Ba 233.527†	114705.1	114877.3	500.60	µg/L	500.60	ppb	18:23:24
2	Be 313.107†	1668689.0	1669620.7	501.21	µg/L	501.21	ppb	18:23:24
2	Cd 226.502†	73008.4	73124.8	501.78	µg/L	501.78	ppb	18:23:24
2	Co 228.616†	37082.8	37258.5	504.18	µg/L	504.18	ppb	18:23:24
2	Cr 267.716†	59406.1	59232.8	498.95	µg/L	498.95	ppb	18:23:24
2	Cu 324.752†	121021.8	118243.4	499.82	µg/L	499.82	ppb	18:23:24
2	Mn 257.610†	376092.9	375950.3	502.28	µg/L	502.28	ppb	18:23:24
2	Mo 202.031†	15858.0	15894.2	506.04	µg/L	506.04	ppb	18:23:44
2	Ni 231.604†	39963.5	40044.9	503.67	µg/L	503.67	ppb	18:23:24
2	P 214.914†	10615.6	10611.5	2522.5	µg/L	2522.5	ppb	18:23:44
2	Pb 220.353†	8395.9	8299.6	509.79	µg/L	509.79	ppb	18:23:44

2	S 181.975 Axial†	1325.9	1238.3	1019.4 µg/L	1019.4 ppb	18:23:44
2	Sb 206.836†	3924.6	3846.8	505.64 µg/L	505.64 ppb	18:23:44
2	Se 196.026†	1274.0	1260.5	507 µg/L	507 ppb	18:23:44
2	SiO2†	51802.5	50053.9	5333.3 µg/L	5333.3 ppb	18:23:24
2	Si 251.611†	155688.4	154753.4	2494.8 µg/L	2494.8 ppb	18:23:24
2	Sn 189.927†	7315.9	7319.1	508.40 µg/L	508.40 ppb	18:23:44
2	Ti 334.940†	500580.0	499738.2	500.00 µg/L	500.00 ppb	18:23:24
2	Tl 190.801†	3641.0	3758.4	512.59 µg/L	512.59 ppb	18:23:44
2	U 409.014†	7245.2	7529.5	501.92 µg/L	501.92 ppb	18:23:24
2	V 292.402†	93774.0	93472.4	502.97 µg/L	502.97 ppb	18:23:24
2	Zn 213.857†	81432.9	80915.5	497.89 µg/L	497.89 ppb	18:23:24
3	Sc RADIAL	151864.6	151864.6	103 %		18:22:42
3	Al 396.153Radial†	25398.9	24787.0	5084.7 µg/L	5084.7 ppb	18:22:42
3	Ca 317.933Radial†	87549.1	84525.1	5085.7 µg/L	5085.7 ppb	18:22:42
3	Fe 238.204 Radial†	77263.5	75070.1	5051.4 µg/L	5051.4 ppb	18:22:42
3	K 766.490 Radial†	14043.0	12357.1	5081.6 µg/L	5081.6 ppb	18:22:42
3	Mg 279.077 IEC†	13106.7	12589.7	5172.4 µg/L	5172.4 ppb	18:22:42
3	Na 589.592 Radial†	69138.8	66095.3	10032 µg/L	10032 ppb	18:22:42
3	Sr 421.552†	226301.2	220510.5	508.65 µg/L	508.65 ppb	18:22:40
3	Sc 361.383	1763121.1	1763121.1	100.46 %		18:23:47
3	Y 371.029	1054400.4	1054400.4	99.094 %		18:23:47
3	Ag 328.068†	129590.7	125552.4	505.33 µg/L	505.33 ppb	18:23:47
3	As 188.979†	1421.7	1432.9	507.26 µg/L	507.26 ppb	18:24:07
3	B 249.677†	34093.4	30707.6	498.91 µg/L	498.91 ppb	18:23:47
3	Ba 233.527†	115605.9	115240.6	502.18 µg/L	502.18 ppb	18:23:47
3	Be 313.107†	1685374.2	1678470.7	503.87 µg/L	503.87 ppb	18:23:47
3	Cd 226.502†	73745.4	73519.0	504.49 µg/L	504.49 ppb	18:23:47
3	Co 228.616†	37334.8	37336.9	505.24 µg/L	505.24 ppb	18:23:47
3	Cr 267.716†	59896.5	59444.7	500.74 µg/L	500.74 ppb	18:23:47
3	Cu 324.752†	121842.9	118498.1	500.89 µg/L	500.89 ppb	18:23:47
3	Mn 257.610†	379394.8	377488.3	504.34 µg/L	504.34 ppb	18:23:47
3	Mo 202.031†	15706.1	15669.2	498.88 µg/L	498.88 ppb	18:24:07
3	Ni 231.604†	40456.4	40349.8	507.51 µg/L	507.51 ppb	18:23:47
3	P 214.914†	10509.4	10456.5	2485.5 µg/L	2485.5 ppb	18:24:07
3	Pb 220.353†	8318.8	8183.9	502.69 µg/L	502.69 ppb	18:24:07
3	S 181.975 Axial†	1309.1	1215.4	1000.5 µg/L	1000.5 ppb	18:24:07
3	Sb 206.836†	3892.4	3796.5	498.91 µg/L	498.91 ppb	18:24:07
3	Se 196.026†	1254.2	1234.9	497 µg/L	497 ppb	18:24:07
3	SiO2†	52130.0	50139.0	5342.7 µg/L	5342.7 ppb	18:23:47
3	Si 251.611†	157303.8	155637.4	2509.2 µg/L	2509.2 ppb	18:23:47
3	Sn 189.927†	7257.4	7226.8	502.02 µg/L	502.02 ppb	18:24:07
3	Ti 334.940†	505498.3	502306.5	502.58 µg/L	502.58 ppb	18:23:47
3	Tl 190.801†	3612.2	3712.8	506.50 µg/L	506.50 ppb	18:24:07
3	U 409.014†	7329.9	7580.2	505.25 µg/L	505.25 ppb	18:23:47
3	V 292.402†	94683.8	93942.0	505.39 µg/L	505.39 ppb	18:23:47
3	Zn 213.857†	82429.5	81528.9	501.67 µg/L	501.67 ppb	18:23:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760556.6	100.31	%	0.278				0.28%
Sc RADIAL	151696.7	103	%	0.3				0.29%
Y 371.029	1053066.5	98.968	%	0.2561				0.26%
Ag 328.068†	125269.5	504.20	µg/L	1.418	504.20	ppb	1.418	0.28%
QC value within limits for Ag 328.068 Recovery = 100.84%								
Al 396.153Radial†	24836.6	5094.8	µg/L	8.77	5094.8	ppb	8.77	0.17%
QC value within limits for Al 396.153Radial Recovery = 101.90%								
As 188.979†	1434.0	507.65	µg/L	2.798	507.65	ppb	2.798	0.55%
QC value within limits for As 188.979 Recovery = 101.53%								
B 249.677†	30589.6	496.99	µg/L	1.960	496.99	ppb	1.960	0.39%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	115151.6	501.80	µg/L	1.055	501.80	ppb	1.055	0.21%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1674901.4	502.80	µg/L	1.402	502.80	ppb	1.402	0.28%
QC value within limits for Be 313.107 Recovery = 100.56%								
Ca 317.933Radial†	84629.4	5091.9	µg/L	16.03	5091.9	ppb	16.03	0.31%
QC value within limits for Ca 317.933Radial Recovery = 101.84%								
Cd 226.502†	73347.1	503.31	µg/L	1.388	503.31	ppb	1.388	0.28%
QC value within limits for Cd 226.502 Recovery = 100.66%								
Co 228.616†	37352.9	505.46	µg/L	1.399	505.46	ppb	1.399	0.28%

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   QC value within limits for Co 228.616  Recovery = 101.09%
Cr 267.716†            59400.8      500.36 µg/L         1.266      500.36 ppb          1.266   0.25%
   QC value within limits for Cr 267.716  Recovery = 100.07%
Cu 324.752†           118463.1      500.75 µg/L         0.867      500.75 ppb          0.867   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.15%
Fe 238.204 Radial†     75139.6      5056.0 µg/L         11.02      5056.0 ppb          11.02   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.12%
K 766.490 Radial†      12363.8      5084.3 µg/L         58.76      5084.3 ppb          58.76   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 101.69%
Mg 279.077 IEC†        12618.8      5184.4 µg/L         35.29      5184.4 ppb          35.29   0.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.69%
Mn 257.610†           376833.2      503.46 µg/L         1.062      503.46 ppb          1.062   0.21%
   QC value within limits for Mn 257.610  Recovery = 100.69%
Mo 202.031†            15774.9      502.25 µg/L         3.598      502.25 ppb          3.598   0.72%
   QC value within limits for Mo 202.031  Recovery = 100.45%
Na 589.592 Radial†     66386.0       10076 µg/L          48.2       10076 ppb           48.2   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 100.76%
Ni 231.604†            40163.3      505.16 µg/L         2.055      505.16 ppb          2.055   0.41%
   QC value within limits for Ni 231.604  Recovery = 101.03%
P 214.914†             10520.5      2500.8 µg/L         19.31      2500.8 ppb          19.31   0.77%
   QC value within limits for P 214.914  Recovery = 100.03%
Pb 220.353†             8234.3      505.78 µg/L         3.642      505.78 ppb          3.642   0.72%
   QC value within limits for Pb 220.353  Recovery = 101.16%
S 181.975 Axial†        1224.2      1007.8 µg/L         10.15      1007.8 ppb          10.15   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 100.78%
Sb 206.836†             3824.8      502.68 µg/L         3.437      502.68 ppb          3.437   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.54%
Se 196.026†             1241.5         499 µg/L           6.7         499 ppb            6.7   1.34%
   QC value within limits for Se 196.026  Recovery = 99.84%
SiO2†                  50141.9      5342.9 µg/L         9.66      5342.9 ppb          9.66   0.18%
   QC value within limits for SiO2  Recovery = 99.91%
Si 251.611†           155235.9      2502.7 µg/L         7.31      2502.7 ppb          7.31   0.29%
   QC value within limits for Si 251.611  Recovery = 100.11%
Sn 189.927†             7265.8      504.71 µg/L         3.301      504.71 ppb          3.301   0.65%
   QC value within limits for Sn 189.927  Recovery = 100.94%
Sr 421.552†           220647.4      508.96 µg/L         1.659      508.96 ppb          1.659   0.33%
   QC value within limits for Sr 421.552  Recovery = 101.79%
Ti 334.940†           501062.0      501.33 µg/L         1.289      501.33 ppb          1.289   0.26%
   QC value within limits for Ti 334.940  Recovery = 100.27%
Tl 190.801†             3738.5      509.93 µg/L         3.117      509.93 ppb          3.117   0.61%
   QC value within limits for Tl 190.801  Recovery = 101.99%
U 409.014†              7644.4      509.21 µg/L         9.876      509.21 ppb          9.876   1.94%
   QC value within limits for U 409.014  Recovery = 101.84%
V 292.402†             93750.9      504.42 µg/L         1.281      504.42 ppb          1.281   0.25%
   QC value within limits for V 292.402  Recovery = 100.88%
Zn 213.857†            81278.7      500.13 µg/L         1.987      500.13 ppb          1.987   0.40%
   QC value within limits for Zn 213.857  Recovery = 100.03%
All analyte(s) passed QC.
```

Sequence No.: 33 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 18:24:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151481.5	151481.5	102	%			18:24:44
1	Al 396.153Radial†	-44.9	19.1	3.9141	µg/L	3.9141	ppb	18:25:04
1	Ca 317.933Radial†	703.4	-11.5	-0.6936	µg/L	-0.6936	ppb	18:25:04
1	Fe 238.204 Radial†	144.3	0.2	0.0103	µg/L	0.0103	ppb	18:25:04
1	K 766.490 Radial†	1391.8	45.4	18.695	µg/L	18.695	ppb	18:24:44
1	Mg 279.077 IEC†	155.2	-17.3	-7.0896	µg/L	-7.0896	ppb	18:25:04
1	Na 589.592 Radial†	1546.4	302.4	45.909	µg/L	45.909	ppb	18:24:44
1	Sr 421.552†	-139.8	85.3	0.1967	µg/L	0.1967	ppb	18:24:44
1	Sc 361.383	1786387.6	1786387.6	101.78	%			18:26:06
1	Y 371.029	1081565.1	1081565.1	101.65	%			18:26:06
1	Ag 328.068†	3253.7	-250.4	-0.9846	µg/L	-0.9846	ppb	18:26:08
1	As 188.979†	-20.6	-2.5	-0.8813	µg/L	-0.8813	ppb	18:26:28
1	B 249.677†	3222.1	-64.7	-1.0549	µg/L	-1.0549	ppb	18:26:28
1	Ba 233.527†	-172.2	-7.0	-0.0304	µg/L	-0.0304	ppb	18:26:28
1	Be 313.107†	-742.7	55.9	0.0186	µg/L	0.0186	ppb	18:26:08
1	Cd 226.502†	-96.4	15.3	0.1051	µg/L	0.1051	ppb	18:26:28
1	Co 228.616†	-164.3	11.0	0.1490	µg/L	0.1490	ppb	18:26:28
1	Cr 267.716†	131.5	-49.4	-0.4208	µg/L	-0.4208	ppb	18:26:28
1	Cu 324.752†	2775.2	-62.3	-0.2578	µg/L	-0.2578	ppb	18:26:08
1	Mn 257.610†	182.1	3.4	0.0048	µg/L	0.0048	ppb	18:26:28
1	Mo 202.031†	-24.2	11.0	0.3493	µg/L	0.3493	ppb	18:26:28
1	Ni 231.604†	-98.1	-18.5	-0.2326	µg/L	-0.2326	ppb	18:26:28
1	P 214.914†	18.4	13.0	3.1135	µg/L	3.1135	ppb	18:26:28
1	Pb 220.353†	78.2	-20.1	-1.2353	µg/L	-1.2353	ppb	18:26:28
1	S 181.975 Axial†	82.8	-6.4	-5.2318	µg/L	-5.2318	ppb	18:26:28
1	Sb 206.836†	53.8	-25.2	-3.2907	µg/L	-3.2907	ppb	18:26:28
1	Se 196.026†	18.0	4.1	1.64	µg/L	1.64	ppb	18:26:28
1	SiO2†	1695.5	-87.4	-9.3595	µg/L	-9.3595	ppb	18:26:28
1	Si 251.611†	801.6	-161.1	-2.6135	µg/L	-2.6135	ppb	18:26:28
1	Sn 189.927†	-0.6	2.0	0.1362	µg/L	0.1362	ppb	18:26:28
1	Ti 334.940†	733.4	-165.0	-0.1671	µg/L	-0.1671	ppb	18:26:08
1	Tl 190.801†	-99.2	19.6	2.6315	µg/L	2.6315	ppb	18:26:28
1	U 409.014†	-191.1	96.0	6.0290	µg/L	6.0290	ppb	18:26:08
1	V 292.402†	368.9	52.6	0.2853	µg/L	0.2853	ppb	18:26:08
1	Zn 213.857†	544.7	10.6	0.0675	µg/L	0.0675	ppb	18:26:28
2	Sc RADIAL	150730.3	150730.3	102	%			18:25:06
2	Al 396.153Radial†	-41.0	22.6	4.6498	µg/L	4.6498	ppb	18:25:26
2	Ca 317.933Radial†	715.4	3.6	0.2184	µg/L	0.2184	ppb	18:25:26
2	Fe 238.204 Radial†	157.4	13.6	0.9183	µg/L	0.9183	ppb	18:25:26
2	K 766.490 Radial†	1502.6	160.9	66.196	µg/L	66.196	ppb	18:25:06
2	Mg 279.077 IEC†	187.3	14.9	6.1063	µg/L	6.1063	ppb	18:25:26
2	Na 589.592 Radial†	1455.4	220.8	33.463	µg/L	33.463	ppb	18:25:06
2	Sr 421.552†	-242.3	-16.0	-0.0370	µg/L	-0.0370	ppb	18:25:06
2	Sc 361.383	1760065.9	1760065.9	100.28	%			18:26:30
2	Y 371.029	1065993.9	1065993.9	100.18	%			18:26:30
2	Ag 328.068†	3460.6	3.7	0.0060	µg/L	0.0060	ppb	18:26:32
2	As 188.979†	-7.3	10.4	3.6164	µg/L	3.6164	ppb	18:26:53
2	B 249.677†	3203.2	-36.2	-0.5899	µg/L	-0.5899	ppb	18:26:53
2	Ba 233.527†	-163.0	-0.4	-0.0017	µg/L	-0.0017	ppb	18:26:53
2	Be 313.107†	-683.2	104.3	0.0293	µg/L	0.0293	ppb	18:26:32
2	Cd 226.502†	-99.5	10.8	0.0741	µg/L	0.0741	ppb	18:26:53
2	Co 228.616†	-181.6	-8.7	-0.1175	µg/L	-0.1175	ppb	18:26:53
2	Cr 267.716†	164.1	-14.9	-0.1204	µg/L	-0.1204	ppb	18:26:53
2	Cu 324.752†	2709.5	-87.2	-0.3726	µg/L	-0.3726	ppb	18:26:32
2	Mn 257.610†	182.8	6.7	0.0087	µg/L	0.0087	ppb	18:26:53
2	Mo 202.031†	-25.1	9.7	0.3092	µg/L	0.3092	ppb	18:26:53
2	Ni 231.604†	-64.3	13.8	0.1730	µg/L	0.1730	ppb	18:26:53
2	P 214.914†	22.4	17.4	4.1462	µg/L	4.1462	ppb	18:26:53
2	Pb 220.353†	92.2	-5.0	-0.3025	µg/L	-0.3025	ppb	18:26:53

2	S 181.975 Axial†	96.5	8.5	7.0111 µg/L	7.0111 ppb	18:26:53
2	Sb 206.836†	96.6	18.3	2.4052 µg/L	2.4052 ppb	18:26:53
2	Se 196.026†	19.6	6.0	2.40 µg/L	2.40 ppb	18:26:53
2	SiO2†	1706.6	-51.4	-5.5173 µg/L	-5.5173 ppb	18:26:53
2	Si 251.611†	758.5	-192.3	-3.1211 µg/L	-3.1211 ppb	18:26:53
2	Sn 189.927†	6.8	9.3	0.6436 µg/L	0.6436 ppb	18:26:53
2	Ti 334.940†	652.1	-235.3	-0.2334 µg/L	-0.2334 ppb	18:26:32
2	Tl 190.801†	-102.4	15.0	2.0150 µg/L	2.0150 ppb	18:26:53
2	U 409.014†	-391.9	-107.0	-6.7052 µg/L	-6.7052 ppb	18:26:32
2	V 292.402†	305.8	-4.9	-0.0279 µg/L	-0.0279 ppb	18:26:32
2	Zn 213.857†	541.8	15.7	0.0964 µg/L	0.0964 ppb	18:26:53
3	Sc RADIAL	154694.6	154694.6	105 %		18:25:28
3	Al 396.153Radial†	-85.0	-18.4	-3.8087 µg/L	-3.8087 ppb	18:25:48
3	Ca 317.933Radial†	706.5	-22.8	-1.3740 µg/L	-1.3740 ppb	18:25:48
3	Fe 238.204 Radial†	167.0	18.9	1.2698 µg/L	1.2698 ppb	18:25:48
3	K 766.490 Radial†	1479.1	100.6	41.404 µg/L	41.404 ppb	18:25:28
3	Mg 279.077 IEC†	182.1	5.3	2.1693 µg/L	2.1693 ppb	18:25:48
3	Na 589.592 Radial†	1436.3	165.9	25.153 µg/L	25.153 ppb	18:25:28
3	Sr 421.552†	-303.9	-68.8	-0.1586 µg/L	-0.1586 ppb	18:25:28
3	Sc 361.383	1712455.6	1712455.6	97.572 %		18:26:55
3	Y 371.029	1037782.0	1037782.0	97.532 %		18:26:55
3	Ag 328.068†	3627.5	270.7	1.0551 µg/L	1.0551 ppb	18:26:57
3	As 188.979†	-12.1	5.3	1.8581 µg/L	1.8581 ppb	18:27:17
3	B 249.677†	3207.3	56.8	0.9250 µg/L	0.9250 ppb	18:27:17
3	Ba 233.527†	-163.0	-4.9	-0.0210 µg/L	-0.0210 ppb	18:27:17
3	Be 313.107†	-627.8	142.2	0.0374 µg/L	0.0374 ppb	18:26:57
3	Cd 226.502†	-110.6	-3.4	-0.0232 µg/L	-0.0232 ppb	18:27:17
3	Co 228.616†	-152.6	16.1	0.2173 µg/L	0.2173 ppb	18:27:17
3	Cr 267.716†	147.7	-27.2	-0.2156 µg/L	-0.2156 ppb	18:27:17
3	Cu 324.752†	2750.8	30.3	0.1136 µg/L	0.1136 ppb	18:26:57
3	Mn 257.610†	203.2	32.7	0.0436 µg/L	0.0436 ppb	18:27:17
3	Mo 202.031†	-22.3	11.9	0.3800 µg/L	0.3800 ppb	18:27:17
3	Ni 231.604†	-73.9	2.2	0.0271 µg/L	0.0271 ppb	18:27:17
3	P 214.914†	27.6	23.3	5.5673 µg/L	5.5673 ppb	18:27:17
3	Pb 220.353†	78.6	-16.5	-0.9934 µg/L	-0.9934 ppb	18:27:17
3	S 181.975 Axial†	90.8	5.4	4.3947 µg/L	4.3947 ppb	18:27:17
3	Sb 206.836†	73.4	-2.8	-0.3595 µg/L	-0.3595 ppb	18:27:17
3	Se 196.026†	22.5	9.5	3.77 µg/L	3.77 ppb	18:27:17
3	SiO2†	1702.2	-8.6	-0.9443 µg/L	-0.9443 ppb	18:27:17
3	Si 251.611†	769.7	-159.8	-2.6000 µg/L	-2.6000 ppb	18:27:17
3	Sn 189.927†	13.6	16.5	1.1444 µg/L	1.1444 ppb	18:27:17
3	Ti 334.940†	1088.6	230.1	0.2376 µg/L	0.2376 ppb	18:26:57
3	Tl 190.801†	-126.7	-12.8	-1.7146 µg/L	-1.7146 ppb	18:27:17
3	U 409.014†	-549.1	-279.0	-17.471 µg/L	-17.471 ppb	18:26:57
3	V 292.402†	310.9	8.8	0.0377 µg/L	0.0377 ppb	18:26:57
3	Zn 213.857†	548.0	37.1	0.2297 µg/L	0.2297 ppb	18:27:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752969.7	99.880	%	2.1351				2.14%
Sc RADIAL	152302.1	103	%	1.4				1.38%
Y 371.029	1061780.3	99.787	%	2.0858				2.09%
Ag 328.068†	8.0	0.0255	µg/L	1.01998	0.0255	ppb	1.01998	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.8	1.5851	µg/L	4.68558	1.5851	ppb	4.68558	295.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.4	1.5311	µg/L	2.26658	1.5311	ppb	2.26658	148.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.7	-0.2399	µg/L	1.03530	-0.2399	ppb	1.03530	431.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.1	-0.0177	µg/L	0.01464	-0.0177	ppb	0.01464	82.75%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	100.8	0.0284	µg/L	0.00943	0.0284	ppb	0.00943	33.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-10.2	-0.6164	µg/L	0.79904	-0.6164	ppb	0.79904	129.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.6	0.0520	µg/L	0.06695	0.0520	ppb	0.06695	128.68%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.1	0.0830	µg/L	0.17691	0.0830	ppb	0.17691	213.26%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -30.5     -0.2523 µg/L       0.15355     -0.2523 ppb        0.15355  60.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -39.7     -0.1723 µg/L       0.25414     -0.1723 ppb        0.25414 147.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        10.9      0.7328 µg/L       0.64991      0.7328 ppb        0.64991  88.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        102.3      42.098 µg/L       23.7579      42.098 ppb        23.7579  56.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.9      0.3953 µg/L       6.77447      0.3953 ppb        6.77447 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              14.3      0.0190 µg/L       0.02134      0.0190 ppb        0.02134 112.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.9      0.3462 µg/L       0.03551      0.3462 ppb        0.03551  10.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       229.7      34.842 µg/L       10.4465      34.842 ppb        10.4465  29.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.9     -0.0108 µg/L       0.20546     -0.0108 ppb        0.20546 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.9      4.2757 µg/L       1.23201      4.2757 ppb        1.23201  28.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -13.9     -0.8437 µg/L       0.48412     -0.8437 ppb        0.48412  57.38%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.5      2.0580 µg/L       6.44726      2.0580 ppb        6.44726 313.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.2     -0.4150 µg/L       2.84832     -0.4150 ppb        2.84832 686.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.5        2.60 µg/L         1.079        2.60 ppb          1.079  41.43%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -49.1     -5.2737 µg/L       4.21292     -5.2737 ppb        4.21292  79.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -171.1     -2.7782 µg/L       0.29704     -2.7782 ppb        0.29704  10.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.3      0.6414 µg/L       0.50410      0.6414 ppb        0.50410  78.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.2      0.0004 µg/L       0.18057      0.0004 ppb        0.18057 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -56.7     -0.0543 µg/L       0.25495     -0.0543 ppb        0.25495 469.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.3      0.9773 µg/L       2.35152      0.9773 ppb        2.35152 240.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -96.7     -6.0490 µg/L      11.76353     -6.0490 ppb       11.76353 194.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               18.8      0.0984 µg/L       0.16521      0.0984 ppb        0.16521 167.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              21.1      0.1312 µg/L       0.08653      0.1312 ppb        0.08653  65.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 18:44:27
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	153942.1	153942.1	104	%			18:45:01
1	Al 396.153Radial†	25750.4	24790.9	5085.4	µg/L	5085.4	ppb	18:45:01
1	Ca 317.933Radial†	89155.5	84917.6	5109.3	µg/L	5109.3	ppb	18:45:01
1	Fe 238.204 Radial†	78433.0	75178.2	5058.6	µg/L	5058.6	ppb	18:45:01
1	K 766.490 Radial†	14298.2	12417.7	5106.5	µg/L	5106.5	ppb	18:45:01
1	Mg 279.077 IEC†	13384.2	12684.0	5211.1	µg/L	5211.1	ppb	18:45:01
1	Na 589.592 Radial†	70528.9	66522.0	10097	µg/L	10097	ppb	18:45:01
1	Sr 421.552†	231735.6	222756.2	513.83	µg/L	513.83	ppb	18:44:59
1	Sc 361.383	1762897.4	1762897.4	100.45	%			18:45:14
1	Y 371.029	1054046.0	1054046.0	99.060	%			18:45:14
1	Ag 328.068†	129110.0	125090.2	503.49	µg/L	503.49	ppb	18:45:14
1	As 188.979†	1412.3	1423.7	504.05	µg/L	504.05	ppb	18:45:34
1	B 249.677†	33946.5	30565.6	496.59	µg/L	496.59	ppb	18:45:14
1	Ba 233.527†	115682.7	115331.7	502.58	µg/L	502.58	ppb	18:45:14
1	Be 313.107†	1683720.1	1677036.9	503.43	µg/L	503.43	ppb	18:45:14
1	Cd 226.502†	73502.1	73286.1	502.89	µg/L	502.89	ppb	18:45:14
1	Co 228.616†	37398.8	37405.3	506.17	µg/L	506.17	ppb	18:45:14
1	Cr 267.716†	59818.5	59374.6	500.16	µg/L	500.16	ppb	18:45:14
1	Cu 324.752†	122128.8	118798.1	502.15	µg/L	502.15	ppb	18:45:14
1	Mn 257.610†	378582.8	376727.9	503.32	µg/L	503.32	ppb	18:45:14
1	Mo 202.031†	15819.2	15783.8	502.53	µg/L	502.53	ppb	18:45:34
1	Ni 231.604†	40263.8	40163.1	505.16	µg/L	505.16	ppb	18:45:14
1	P 214.914†	10565.6	10513.7	2499.1	µg/L	2499.1	ppb	18:45:34
1	Pb 220.353†	8380.4	8246.2	506.52	µg/L	506.52	ppb	18:45:34
1	S 181.975 Axial†	1324.7	1231.1	1013.4	µg/L	1013.4	ppb	18:45:34
1	Sb 206.836†	3897.4	3802.0	499.70	µg/L	499.70	ppb	18:45:34
1	Se 196.026†	1267.2	1248.1	502	µg/L	502	ppb	18:45:34
1	SiO2†	52107.0	50122.7	5340.8	µg/L	5340.8	ppb	18:45:14
1	Si 251.611†	157060.6	155415.3	2505.6	µg/L	2505.6	ppb	18:45:14
1	Sn 189.927†	7312.5	7282.6	505.88	µg/L	505.88	ppb	18:45:34
1	Ti 334.940†	504700.6	501576.2	501.85	µg/L	501.85	ppb	18:45:14
1	Tl 190.801†	3656.4	3757.3	512.48	µg/L	512.48	ppb	18:45:34
1	U 409.014†	7095.4	7347.7	490.74	µg/L	490.74	ppb	18:45:14
1	V 292.402†	94870.9	94140.3	506.47	µg/L	506.47	ppb	18:45:14
1	Zn 213.857†	82003.2	81114.8	499.11	µg/L	499.11	ppb	18:45:14
2	Sc RADIAL	151796.9	151796.9	103	%			18:45:05
2	Al 396.153Radial†	25698.8	25090.0	5147.1	µg/L	5147.1	ppb	18:45:05
2	Ca 317.933Radial†	87700.2	84710.3	5096.8	µg/L	5096.8	ppb	18:45:05
2	Fe 238.204 Radial†	77299.2	75138.3	5056.0	µg/L	5056.0	ppb	18:45:05
2	K 766.490 Radial†	14202.8	12518.9	5148.1	µg/L	5148.1	ppb	18:45:05
2	Mg 279.077 IEC†	13168.5	12655.6	5199.4	µg/L	5199.4	ppb	18:45:05
2	Na 589.592 Radial†	69452.7	66431.0	10083	µg/L	10083	ppb	18:45:05
2	Sr 421.552†	229145.4	223378.5	515.26	µg/L	515.26	ppb	18:45:03
2	Sc 361.383	1767775.8	1767775.8	100.72	%			18:45:37
2	Y 371.029	1057409.9	1057409.9	99.376	%			18:45:37
2	Ag 328.068†	129676.7	125298.2	504.34	µg/L	504.34	ppb	18:45:37
2	As 188.979†	1421.8	1429.3	505.98	µg/L	505.98	ppb	18:45:57
2	B 249.677†	33996.7	30522.2	495.89	µg/L	495.89	ppb	18:45:37
2	Ba 233.527†	115803.2	115133.5	501.72	µg/L	501.72	ppb	18:45:37
2	Be 313.107†	1687491.9	1676155.7	503.17	µg/L	503.17	ppb	18:45:37
2	Cd 226.502†	73686.7	73267.4	502.76	µg/L	502.76	ppb	18:45:37
2	Co 228.616†	37447.6	37351.0	505.43	µg/L	505.43	ppb	18:45:37
2	Cr 267.716†	59854.7	59246.2	499.05	µg/L	499.05	ppb	18:45:37
2	Cu 324.752†	122416.8	118748.5	501.96	µg/L	501.96	ppb	18:45:37
2	Mn 257.610†	380024.3	377118.9	503.84	µg/L	503.84	ppb	18:45:37
2	Mo 202.031†	15789.8	15711.1	500.22	µg/L	500.22	ppb	18:45:57
2	Ni 231.604†	40279.2	40067.8	503.96	µg/L	503.96	ppb	18:45:37
2	P 214.914†	10576.2	10495.2	2494.7	µg/L	2494.7	ppb	18:45:57
2	Pb 220.353†	8384.2	8227.0	505.32	µg/L	505.32	ppb	18:45:57

2	S 181.975 Axial†	1320.5	1223.3	1007.0 µg/L	1007.0 ppb	18:45:57
2	Sb 206.836†	3909.6	3803.5	499.86 µg/L	499.86 ppb	18:45:57
2	Se 196.026†	1283.2	1260.4	507 µg/L	507 ppb	18:45:57
2	SiO2†	52193.7	50065.6	5334.8 µg/L	5334.8 ppb	18:45:37
2	Si 251.611†	157453.5	155373.8	2504.9 µg/L	2504.9 ppb	18:45:37
2	Sn 189.927†	7276.0	7226.2	501.98 µg/L	501.98 ppb	18:45:57
2	Ti 334.940†	506783.4	502257.5	502.52 µg/L	502.52 ppb	18:45:37
2	Tl 190.801†	3634.1	3725.0	508.15 µg/L	508.15 ppb	18:45:57
2	U 409.014†	7555.6	7785.0	518.09 µg/L	518.09 ppb	18:45:37
2	V 292.402†	94951.1	93959.2	505.50 µg/L	505.50 ppb	18:45:37
2	Zn 213.857†	82281.7	81166.0	499.44 µg/L	499.44 ppb	18:45:37
3	Sc RADIAL	153140.8	153140.8	104 %		18:45:09
3	Al 396.153Radial†	25849.7	25016.1	5131.6 µg/L	5131.6 ppb	18:45:09
3	Ca 317.933Radial†	88696.4	84922.4	5109.6 µg/L	5109.6 ppb	18:45:09
3	Fe 238.204 Radial†	78112.2	75262.6	5064.3 µg/L	5064.3 ppb	18:45:09
3	K 766.490 Radial†	14463.6	12649.2	5201.7 µg/L	5201.7 ppb	18:45:09
3	Mg 279.077 IEC†	13342.5	12711.0	5222.3 µg/L	5222.3 ppb	18:45:09
3	Na 589.592 Radial†	70076.4	66439.5	10084 µg/L	10084 ppb	18:45:09
3	Sr 421.552†	226711.4	219070.7	505.32 µg/L	505.32 ppb	18:45:07
3	Sc 361.383	1752476.9	1752476.9	99.852 %		18:46:00
3	Y 371.029	1047833.8	1047833.8	98.477 %		18:46:00
3	Ag 328.068†	128994.2	125738.5	506.10 µg/L	506.10 ppb	18:46:00
3	As 188.979†	1420.6	1440.4	509.90 µg/L	509.90 ppb	18:46:20
3	B 249.677†	33932.3	30752.3	499.63 µg/L	499.63 ppb	18:46:00
3	Ba 233.527†	115334.5	115667.8	504.05 µg/L	504.05 ppb	18:46:00
3	Be 313.107†	1677265.1	1680539.6	504.49 µg/L	504.49 ppb	18:46:00
3	Cd 226.502†	73364.3	73583.2	504.93 µg/L	504.93 ppb	18:46:00
3	Co 228.616†	37270.7	37498.4	507.43 µg/L	507.43 ppb	18:46:00
3	Cr 267.716†	59635.6	59545.5	501.58 µg/L	501.58 ppb	18:46:00
3	Cu 324.752†	121670.1	119061.7	503.28 µg/L	503.28 ppb	18:46:00
3	Mn 257.610†	378013.6	378399.0	505.55 µg/L	505.55 ppb	18:46:00
3	Mo 202.031†	15827.9	15886.2	505.79 µg/L	505.79 ppb	18:46:20
3	Ni 231.604†	40100.4	40237.8	506.10 µg/L	506.10 ppb	18:46:00
3	P 214.914†	10588.0	10598.7	2519.4 µg/L	2519.4 ppb	18:46:20
3	Pb 220.353†	8367.6	8283.1	508.78 µg/L	508.78 ppb	18:46:20
3	S 181.975 Axial†	1315.8	1230.1	1012.6 µg/L	1012.6 ppb	18:46:20
3	Sb 206.836†	3931.0	3858.8	507.17 µg/L	507.17 ppb	18:46:20
3	Se 196.026†	1282.6	1270.9	511 µg/L	511 ppb	18:46:20
3	SiO2†	52021.3	50345.4	5364.5 µg/L	5364.5 ppb	18:46:00
3	Si 251.611†	156468.8	155752.3	2511.0 µg/L	2511.0 ppb	18:46:00
3	Sn 189.927†	7299.4	7312.8	507.97 µg/L	507.97 ppb	18:46:20
3	Ti 334.940†	503341.4	503202.7	503.47 µg/L	503.47 ppb	18:46:00
3	Tl 190.801†	3641.3	3763.8	513.36 µg/L	513.36 ppb	18:46:20
3	U 409.014†	7378.2	7672.9	511.15 µg/L	511.15 ppb	18:46:00
3	V 292.402†	94379.9	94210.1	506.89 µg/L	506.89 ppb	18:46:00
3	Zn 213.857†	82101.5	81698.8	502.73 µg/L	502.73 ppb	18:46:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1761050.0	100.34	%	0.445				0.44%
Sc RADIAL	152959.9	103	%	0.7				0.71%
Y 371.029	1053096.6	98.971	%	0.4566				0.46%
Ag 328.068†	125375.6	504.64	µg/L	1.329	504.64	ppb	1.329	0.26%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 396.153Radial†	24965.7	5121.4	µg/L	32.13	5121.4	ppb	32.13	0.63%
QC value within limits for Al 396.153Radial Recovery = 102.43%								
As 188.979†	1431.1	506.64	µg/L	2.982	506.64	ppb	2.982	0.59%
QC value within limits for As 188.979 Recovery = 101.33%								
B 249.677†	30613.3	497.37	µg/L	1.990	497.37	ppb	1.990	0.40%
QC value within limits for B 249.677 Recovery = 99.47%								
Ba 233.527†	115377.7	502.78	µg/L	1.177	502.78	ppb	1.177	0.23%
QC value within limits for Ba 233.527 Recovery = 100.56%								
Be 313.107†	1677910.7	503.70	µg/L	0.696	503.70	ppb	0.696	0.14%
QC value within limits for Be 313.107 Recovery = 100.74%								
Ca 317.933Radial†	84850.1	5105.2	µg/L	7.29	5105.2	ppb	7.29	0.14%
QC value within limits for Ca 317.933Radial Recovery = 102.10%								
Cd 226.502†	73378.9	503.53	µg/L	1.217	503.53	ppb	1.217	0.24%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	37418.3	506.34	µg/L	1.010	506.34	ppb	1.010	0.20%

```
   QC value within limits for Co 228.616  Recovery = 101.27%
Cr 267.716†            59388.7      500.26 µg/L         1.267      500.26 ppb          1.267   0.25%
   QC value within limits for Cr 267.716  Recovery = 100.05%
Cu 324.752†           118869.4      502.46 µg/L         0.712      502.46 ppb          0.712   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.49%
Fe 238.204 Radial†     75193.0      5059.6 µg/L          4.27      5059.6 ppb           4.27   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.19%
K 766.490 Radial†      12528.6      5152.1 µg/L         47.75      5152.1 ppb          47.75   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 103.04%
Mg 279.077 IEC†        12683.5      5211.0 µg/L         11.44      5211.0 ppb          11.44   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.22%
Mn 257.610†           377415.2      504.24 µg/L         1.168      504.24 ppb          1.168   0.23%
   QC value within limits for Mn 257.610  Recovery = 100.85%
Mo 202.031†            15793.7      502.84 µg/L         2.799      502.84 ppb          2.799   0.56%
   QC value within limits for Mo 202.031  Recovery = 100.57%
Na 589.592 Radial†     66464.2       10088 µg/L           7.7       10088 ppb            7.7   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 100.88%
Ni 231.604†            40156.2      505.07 µg/L         1.072      505.07 ppb          1.072   0.21%
   QC value within limits for Ni 231.604  Recovery = 101.01%
P 214.914†             10535.9      2504.4 µg/L         13.15      2504.4 ppb          13.15   0.53%
   QC value within limits for P 214.914  Recovery = 100.18%
Pb 220.353†             8252.1      506.87 µg/L         1.754      506.87 ppb          1.754   0.35%
   QC value within limits for Pb 220.353  Recovery = 101.37%
S 181.975 Axial†        1228.2      1011.0 µg/L          3.50      1011.0 ppb           3.50   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 101.10%
Sb 206.836†             3821.4      502.24 µg/L         4.267      502.24 ppb          4.267   0.85%
   QC value within limits for Sb 206.836  Recovery = 100.45%
Se 196.026†             1259.8         506 µg/L           4.6         506 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 101.30%
SiO2†                  50177.9      5346.7 µg/L         15.70      5346.7 ppb          15.70   0.29%
   QC value within limits for SiO2  Recovery = 99.98%
Si 251.611†           155513.8      2507.2 µg/L          3.31      2507.2 ppb           3.31   0.13%
   QC value within limits for Si 251.611  Recovery = 100.29%
Sn 189.927†             7273.9      505.28 µg/L         3.042      505.28 ppb          3.042   0.60%
   QC value within limits for Sn 189.927  Recovery = 101.06%
Sr 421.552†           221735.2      511.47 µg/L         5.371      511.47 ppb          5.371   1.05%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           502345.5      502.61 µg/L         0.814      502.61 ppb          0.814   0.16%
   QC value within limits for Ti 334.940  Recovery = 100.52%
Tl 190.801†             3748.7      511.33 µg/L         2.791      511.33 ppb          2.791   0.55%
   QC value within limits for Tl 190.801  Recovery = 102.27%
U 409.014†              7601.9      506.66 µg/L        14.213      506.66 ppb         14.213   2.81%
   QC value within limits for U 409.014  Recovery = 101.33%
V 292.402†             94103.2      506.29 µg/L         0.715      506.29 ppb          0.715   0.14%
   QC value within limits for V 292.402  Recovery = 101.26%
Zn 213.857†            81326.6      500.43 µg/L         2.000      500.43 ppb          2.000   0.40%
   QC value within limits for Zn 213.857  Recovery = 100.09%
All analyte(s) passed QC.
```

Sequence No.: 41
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 18:46:28
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	152151.4	152151.4	103	%			18:46:57
1	Al 396.153Radial†	-67.1	-2.4	-0.4866	µg/L	-0.4866	ppb	18:47:17
1	Ca 317.933Radial†	723.2	4.6	0.2792	µg/L	0.2792	ppb	18:47:17
1	Fe 238.204 Radial†	139.3	-5.4	-0.3626	µg/L	-0.3626	ppb	18:47:17
1	K 766.490 Radial†	1576.7	219.1	90.185	µg/L	90.185	ppb	18:46:57
1	Mg 279.077 IEC†	162.8	-10.6	-4.3553	µg/L	-4.3553	ppb	18:47:17
1	Na 589.592 Radial†	1352.0	106.9	16.159	µg/L	16.159	ppb	18:46:57
1	Sr 421.552†	-249.3	-20.5	-0.0474	µg/L	-0.0474	ppb	18:46:57
1	Sc 361.383	1776193.8	1776193.8	101.20	%			18:48:05
1	Y 371.029	1075054.5	1075054.5	101.03	%			18:48:05
1	Ag 328.068†	3524.3	35.3	0.1446	µg/L	0.1446	ppb	18:48:07
1	As 188.979†	-20.3	-2.4	-0.8343	µg/L	-0.8343	ppb	18:48:27
1	B 249.677†	3223.3	-45.4	-0.7407	µg/L	-0.7407	ppb	18:48:27
1	Ba 233.527†	-158.9	5.2	0.0225	µg/L	0.0225	ppb	18:48:27
1	Be 313.107†	-661.4	132.0	0.0404	µg/L	0.0404	ppb	18:48:07
1	Cd 226.502†	-95.7	15.5	0.1063	µg/L	0.1063	ppb	18:48:27
1	Co 228.616†	-167.1	7.3	0.0989	µg/L	0.0989	ppb	18:48:27
1	Cr 267.716†	161.1	-19.4	-0.1655	µg/L	-0.1655	ppb	18:48:27
1	Cu 324.752†	2875.2	52.1	0.2215	µg/L	0.2215	ppb	18:48:07
1	Mn 257.610†	153.8	-23.6	-0.0314	µg/L	-0.0314	ppb	18:48:27
1	Mo 202.031†	-33.8	1.4	0.0444	µg/L	0.0444	ppb	18:48:27
1	Ni 231.604†	-77.2	1.6	0.0199	µg/L	0.0199	ppb	18:48:27
1	P 214.914†	22.8	17.6	4.1940	µg/L	4.1940	ppb	18:48:27
1	Pb 220.353†	96.4	-1.7	-0.1045	µg/L	-0.1045	ppb	18:48:27
1	S 181.975 Axial†	88.1	-0.6	-0.5041	µg/L	-0.5041	ppb	18:48:27
1	Sb 206.836†	76.5	-2.5	-0.3283	µg/L	-0.3283	ppb	18:48:27
1	Se 196.026†	13.2	-0.5	-0.208	µg/L	-0.208	ppb	18:48:27
1	SiO2†	1699.4	-74.0	-7.9264	µg/L	-7.9264	ppb	18:48:27
1	Si 251.611†	786.3	-171.7	-2.7844	µg/L	-2.7844	ppb	18:48:27
1	Sn 189.927†	7.1	9.6	0.6613	µg/L	0.6613	ppb	18:48:27
1	Ti 334.940†	700.9	-193.0	-0.1940	µg/L	-0.1940	ppb	18:48:07
1	Tl 190.801†	-115.5	2.9	0.3924	µg/L	0.3924	ppb	18:48:27
1	U 409.014†	-246.0	40.6	2.5516	µg/L	2.5516	ppb	18:48:07
1	V 292.402†	334.3	20.5	0.1104	µg/L	0.1104	ppb	18:48:07
1	Zn 213.857†	506.1	-24.5	-0.1524	µg/L	-0.1524	ppb	18:48:27
2	Sc RADIAL	152975.4	152975.4	103	%			18:47:19
2	Al 396.153Radial†	-44.1	20.3	4.1794	µg/L	4.1794	ppb	18:47:39
2	Ca 317.933Radial†	734.0	11.3	0.6795	µg/L	0.6795	ppb	18:47:39
2	Fe 238.204 Radial†	154.4	8.5	0.5744	µg/L	0.5744	ppb	18:47:39
2	K 766.490 Radial†	1543.9	179.1	73.713	µg/L	73.713	ppb	18:47:19
2	Mg 279.077 IEC†	193.7	18.4	7.5387	µg/L	7.5387	ppb	18:47:39
2	Na 589.592 Radial†	1470.0	213.9	32.411	µg/L	32.411	ppb	18:47:19
2	Sr 421.552†	-231.5	-2.1	-0.0048	µg/L	-0.0048	ppb	18:47:19
2	Sc 361.383	1767919.1	1767919.1	100.73	%			18:48:29
2	Y 371.029	1069730.4	1069730.4	100.53	%			18:48:29
2	Ag 328.068†	3557.8	84.9	0.3368	µg/L	0.3368	ppb	18:48:31
2	As 188.979†	-5.0	12.7	4.4277	µg/L	4.4277	ppb	18:48:52
2	B 249.677†	3268.3	14.2	0.2331	µg/L	0.2331	ppb	18:48:52
2	Ba 233.527†	-146.9	16.3	0.0713	µg/L	0.0713	ppb	18:48:52
2	Be 313.107†	-906.0	-113.8	-0.0363	µg/L	-0.0363	ppb	18:48:31
2	Cd 226.502†	-99.1	11.6	0.0799	µg/L	0.0799	ppb	18:48:52
2	Co 228.616†	-196.6	-22.8	-0.3079	µg/L	-0.3079	ppb	18:48:52
2	Cr 267.716†	195.1	15.2	0.1334	µg/L	0.1334	ppb	18:48:52
2	Cu 324.752†	2555.5	-252.0	-1.0674	µg/L	-1.0674	ppb	18:48:31
2	Mn 257.610†	206.5	29.4	0.0390	µg/L	0.0390	ppb	18:48:52
2	Mo 202.031†	-33.2	1.8	0.0577	µg/L	0.0577	ppb	18:48:52
2	Ni 231.604†	-77.9	0.6	0.0071	µg/L	0.0071	ppb	18:48:52
2	P 214.914†	0.4	-4.6	-1.0826	µg/L	-1.0826	ppb	18:48:52
2	Pb 220.353†	74.2	-23.3	-1.4180	µg/L	-1.4180	ppb	18:48:52

2	S 181.975 Axial†	84.8	-3.5	-2.8472 µg/L	-2.8472 ppb	18:48:52
2	Sb 206.836†	71.0	-7.6	-0.9970 µg/L	-0.9970 ppb	18:48:52
2	Se 196.026†	8.0	-5.7	-2.27 µg/L	-2.27 ppb	18:48:52
2	SiO2†	1684.6	-80.8	-8.6508 µg/L	-8.6508 ppb	18:48:52
2	Si 251.611†	813.4	-141.2	-2.2907 µg/L	-2.2907 ppb	18:48:52
2	Sn 189.927†	6.9	9.4	0.6484 µg/L	0.6484 ppb	18:48:52
2	Ti 334.940†	691.3	-199.3	-0.1974 µg/L	-0.1974 ppb	18:48:31
2	Tl 190.801†	-97.1	20.6	2.7783 µg/L	2.7783 ppb	18:48:52
2	U 409.014†	-398.1	-111.5	-6.9419 µg/L	-6.9419 ppb	18:48:31
2	V 292.402†	439.9	126.9	0.6702 µg/L	0.6702 ppb	18:48:31
2	Zn 213.857†	533.3	4.8	0.0308 µg/L	0.0308 ppb	18:48:52
3	Sc RADIAL	149946.4	149946.4	101 %		18:47:41
3	Al 396.153Radial†	-51.6	12.0	2.4586 µg/L	2.4586 ppb	18:48:01
3	Ca 317.933Radial†	728.7	20.4	1.2296 µg/L	1.2296 ppb	18:48:01
3	Fe 238.204 Radial†	139.6	-3.1	-0.2094 µg/L	-0.2094 ppb	18:48:01
3	K 766.490 Radial†	1529.8	195.4	80.397 µg/L	80.397 ppb	18:47:41
3	Mg 279.077 IEC†	170.9	-0.3	-0.1102 µg/L	-0.1102 ppb	18:48:01
3	Na 589.592 Radial†	1439.5	212.5	32.198 µg/L	32.198 ppb	18:47:41
3	Sr 421.552†	-138.5	85.1	0.1964 µg/L	0.1964 ppb	18:47:41
3	Sc 361.383	1784036.1	1784036.1	101.65 %		18:48:54
3	Y 371.029	1079647.7	1079647.7	101.47 %		18:48:54
3	Ag 328.068†	3448.6	-54.5	-0.2117 µg/L	-0.2117 ppb	18:48:56
3	As 188.979†	2.4	20.0	6.9895 µg/L	6.9895 ppb	18:49:16
3	B 249.677†	3233.0	-49.8	-0.8123 µg/L	-0.8123 ppb	18:49:16
3	Ba 233.527†	-137.1	27.3	0.1195 µg/L	0.1195 ppb	18:49:16
3	Be 313.107†	-489.6	303.9	0.0900 µg/L	0.0900 ppb	18:48:56
3	Cd 226.502†	-113.5	-1.6	-0.0113 µg/L	-0.0113 ppb	18:49:16
3	Co 228.616†	-174.8	0.5	0.0069 µg/L	0.0069 ppb	18:49:16
3	Cr 267.716†	195.3	13.5	0.1177 µg/L	0.1177 ppb	18:49:16
3	Cu 324.752†	2762.6	-71.2	-0.3033 µg/L	-0.3033 ppb	18:48:56
3	Mn 257.610†	176.9	-1.5	-0.0020 µg/L	-0.0020 ppb	18:49:16
3	Mo 202.031†	-20.5	14.6	0.4650 µg/L	0.4650 ppb	18:49:16
3	Ni 231.604†	-71.1	8.0	0.1000 µg/L	0.1000 ppb	18:49:16
3	P 214.914†	16.2	11.0	2.6159 µg/L	2.6159 ppb	18:49:16
3	Pb 220.353†	87.3	-11.1	-0.6739 µg/L	-0.6739 ppb	18:49:16
3	S 181.975 Axial†	85.3	-3.7	-3.0600 µg/L	-3.0600 ppb	18:49:16
3	Sb 206.836†	81.3	1.9	0.2513 µg/L	0.2513 ppb	18:49:16
3	Se 196.026†	9.5	-4.2	-1.68 µg/L	-1.68 ppb	18:49:16
3	SiO2†	1690.3	-90.3	-9.6793 µg/L	-9.6793 ppb	18:49:16
3	Si 251.611†	764.8	-196.3	-3.1853 µg/L	-3.1853 ppb	18:49:16
3	Sn 189.927†	2.4	4.9	0.3369 µg/L	0.3369 ppb	18:49:16
3	Ti 334.940†	691.1	-205.7	-0.2044 µg/L	-0.2044 ppb	18:48:56
3	Tl 190.801†	-116.1	2.9	0.3899 µg/L	0.3899 ppb	18:49:16
3	U 409.014†	-352.9	-63.4	-3.9241 µg/L	-3.9241 ppb	18:48:56
3	V 292.402†	470.0	152.5	0.8126 µg/L	0.8126 ppb	18:48:56
3	Zn 213.857†	527.9	-5.2	-0.0327 µg/L	-0.0327 ppb	18:49:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776049.6	101.19	%	0.459				0.45%
Sc RADIAL	151691.1	103	%	1.1				1.03%
Y 371.029	1074810.9	101.01	%	0.466				0.46%
Ag 328.068†	21.9	0.0899	µg/L	0.27831	0.0899	ppb	0.27831	309.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.0	2.0504	µg/L	2.35962	2.0504	ppb	2.35962	115.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.1	3.5276	µg/L	3.98879	3.5276	ppb	3.98879	113.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-27.0	-0.4400	µg/L	0.58399	-0.4400	ppb	0.58399	132.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.2	0.0711	µg/L	0.04850	0.0711	ppb	0.04850	68.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	107.4	0.0314	µg/L	0.06362	0.0314	ppb	0.06362	202.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.1	0.7294	µg/L	0.47719	0.7294	ppb	0.47719	65.42%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.5	0.0583	µg/L	0.06168	0.0583	ppb	0.06168	105.76%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.0	-0.0674	µg/L	0.21331	-0.0674	ppb	0.21331	316.70%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.1      0.0285 µg/L       0.16821      0.0285 ppb        0.16821 590.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -90.4     -0.3831 µg/L       0.64818     -0.3831 ppb        0.64818 169.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.0008 µg/L       0.50262      0.0008 ppb        0.50262 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        197.9      81.432 µg/L        8.2847      81.432 ppb         8.2847  10.17%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      1.0244 µg/L       6.02764      1.0244 ppb        6.02764 588.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                1.4      0.0019 µg/L       0.03536      0.0019 ppb        0.03536 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.9      0.1890 µg/L       0.23907      0.1890 ppb        0.23907 126.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       177.8      26.922 µg/L        9.3225      26.922 ppb         9.3225  34.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                3.4      0.0423 µg/L       0.05037      0.0423 ppb        0.05037 119.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 8.0      1.9091 µg/L       2.70839      1.9091 ppb        2.70839 141.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.0     -0.7321 µg/L       0.65871     -0.7321 ppb        0.65871  89.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.6     -2.1371 µg/L       1.41821     -2.1371 ppb        1.41821  66.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.8     -0.3580 µg/L       0.62468     -0.3580 ppb        0.62468 174.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.5       -1.39 µg/L         1.063       -1.39 ppb          1.063  76.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -81.7     -8.7522 µg/L       0.88086     -8.7522 ppb        0.88086  10.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -169.7     -2.7534 µg/L       0.44809     -2.7534 ppb        0.44809  16.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.9      0.5489 µg/L       0.18365      0.5489 ppb        0.18365  33.46%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               20.8      0.0481 µg/L       0.13019      0.0481 ppb        0.13019 270.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -199.3     -0.1986 µg/L       0.00533     -0.1986 ppb        0.00533   2.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.8      1.1869 µg/L       1.37822      1.1869 ppb        1.37822 116.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -44.7     -2.7715 µg/L       4.85059     -2.7715 ppb        4.85059 175.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               100.0      0.5311 µg/L       0.37119      0.5311 ppb        0.37119  69.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -8.3     -0.0514 µg/L       0.09300     -0.0514 ppb        0.09300 180.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 19:02:24
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	154004.0	154004.0	104	%			19:02:58
1	Al 396.153Radial†	25964.7	24986.6	5125.3	µg/L	5125.3	ppb	19:02:58
1	Ca 317.933Radial†	89222.2	84947.2	5111.1	µg/L	5111.1	ppb	19:02:58
1	Fe 238.204 Radial†	78645.9	75352.2	5070.4	µg/L	5070.4	ppb	19:02:58
1	K 766.490 Radial†	14412.4	12521.8	5149.4	µg/L	5149.4	ppb	19:02:58
1	Mg 279.077 IEC†	13347.3	12643.4	5194.7	µg/L	5194.7	ppb	19:02:58
1	Na 589.592 Radial†	70330.6	66304.4	10064	µg/L	10064	ppb	19:02:58
1	Sr 421.552†	231741.9	222672.8	513.63	µg/L	513.63	ppb	19:02:56
1	Sc 361.383	1763677.6	1763677.6	100.49	%			19:03:10
1	Y 371.029	1054125.3	1054125.3	99.068	%			19:03:10
1	Ag 328.068†	130160.6	126078.8	507.48	µg/L	507.48	ppb	19:03:10
1	As 188.979†	1453.5	1464.1	518.20	µg/L	518.20	ppb	19:03:30
1	B 249.677†	34180.4	30783.4	500.13	µg/L	500.13	ppb	19:03:10
1	Ba 233.527†	116436.0	116030.4	505.63	µg/L	505.63	ppb	19:03:10
1	Be 313.107†	1697234.3	1689743.7	507.25	µg/L	507.25	ppb	19:03:10
1	Cd 226.502†	74227.4	73975.5	507.62	µg/L	507.62	ppb	19:03:10
1	Co 228.616†	37714.9	37703.4	510.20	µg/L	510.20	ppb	19:03:10
1	Cr 267.716†	60312.0	59839.3	504.06	µg/L	504.06	ppb	19:03:10
1	Cu 324.752†	122804.2	119416.4	504.78	µg/L	504.78	ppb	19:03:10
1	Mn 257.610†	381770.5	379733.3	507.34	µg/L	507.34	ppb	19:03:10
1	Mo 202.031†	16081.8	16038.1	510.62	µg/L	510.62	ppb	19:03:30
1	Ni 231.604†	40582.5	40462.5	508.93	µg/L	508.93	ppb	19:03:10
1	P 214.914†	10827.3	10769.5	2560.1	µg/L	2560.1	ppb	19:03:30
1	Pb 220.353†	8567.3	8428.6	517.70	µg/L	517.70	ppb	19:03:30
1	S 181.975 Axial†	1349.8	1255.5	1033.5	µg/L	1033.5	ppb	19:03:30
1	Sb 206.836†	3993.2	3895.7	512.06	µg/L	512.06	ppb	19:03:30
1	Se 196.026†	1316.1	1296.1	521	µg/L	521	ppb	19:03:30
1	SiO2†	52658.3	50648.4	5396.7	µg/L	5396.7	ppb	19:03:10
1	Si 251.611†	158083.3	156363.8	2520.7	µg/L	2520.7	ppb	19:03:10
1	Sn 189.927†	7449.7	7415.9	515.12	µg/L	515.12	ppb	19:03:30
1	Ti 334.940†	507688.9	504327.7	504.60	µg/L	504.60	ppb	19:03:10
1	Tl 190.801†	3728.3	3827.2	521.91	µg/L	521.91	ppb	19:03:30
1	U 409.014†	7452.4	7699.8	512.98	µg/L	512.98	ppb	19:03:10
1	V 292.402†	95444.2	94669.0	509.39	µg/L	509.39	ppb	19:03:10
1	Zn 213.857†	82729.3	81801.3	503.35	µg/L	503.35	ppb	19:03:10
2	Sc RADIAL	152206.2	152206.2	103	%			19:03:02
2	Al 396.153Radial†	25625.5	24951.5	5118.3	µg/L	5118.3	ppb	19:03:02
2	Ca 317.933Radial†	87826.6	84603.3	5090.4	µg/L	5090.4	ppb	19:03:02
2	Fe 238.204 Radial†	77648.1	75274.8	5065.1	µg/L	5065.1	ppb	19:03:02
2	K 766.490 Radial†	14302.6	12578.6	5172.7	µg/L	5172.7	ppb	19:03:02
2	Mg 279.077 IEC†	13235.3	12685.9	5212.0	µg/L	5212.0	ppb	19:03:02
2	Na 589.592 Radial†	69709.1	66498.1	10093	µg/L	10093	ppb	19:03:02
2	Sr 421.552†	227338.2	221023.3	509.83	µg/L	509.83	ppb	19:03:00
2	Sc 361.383	1776875.4	1776875.4	101.24	%			19:03:34
2	Y 371.029	1061631.9	1061631.9	99.773	%			19:03:34
2	Ag 328.068†	130998.6	125944.5	506.93	µg/L	506.93	ppb	19:03:34
2	As 188.979†	1459.7	1459.5	516.59	µg/L	516.59	ppb	19:03:54
2	B 249.677†	34518.0	30864.2	501.44	µg/L	501.44	ppb	19:03:34
2	Ba 233.527†	117636.8	116355.9	507.05	µg/L	507.05	ppb	19:03:34
2	Be 313.107†	1716424.6	1696153.7	509.17	µg/L	509.17	ppb	19:03:34
2	Cd 226.502†	74851.1	74042.9	508.09	µg/L	508.09	ppb	19:03:34
2	Co 228.616†	38147.6	37852.0	512.21	µg/L	512.21	ppb	19:03:34
2	Cr 267.716†	60842.3	59917.4	504.73	µg/L	504.73	ppb	19:03:34
2	Cu 324.752†	123942.6	119633.2	505.67	µg/L	505.67	ppb	19:03:34
2	Mn 257.610†	385004.0	380105.3	507.84	µg/L	507.84	ppb	19:03:34
2	Mo 202.031†	16082.4	15919.8	506.86	µg/L	506.86	ppb	19:03:54
2	Ni 231.604†	40885.5	40461.8	508.92	µg/L	508.92	ppb	19:03:34
2	P 214.914†	10845.5	10707.5	2545.3	µg/L	2545.3	ppb	19:03:54
2	Pb 220.353†	8540.7	8339.0	512.22	µg/L	512.22	ppb	19:03:54

2	S 181.975 Axial†	1357.6	1253.3	1031.6 µg/L	1031.6 ppb	19:03:54
2	Sb 206.836†	4001.7	3874.5	509.22 µg/L	509.22 ppb	19:03:54
2	Se 196.026†	1299.7	1270.2	511 µg/L	511 ppb	19:03:54
2	SiO2†	52899.6	50497.5	5380.7 µg/L	5380.7 ppb	19:03:34
2	Si 251.611†	159655.1	156747.9	2527.0 µg/L	2527.0 ppb	19:03:34
2	Sn 189.927†	7450.2	7361.4	511.34 µg/L	511.34 ppb	19:03:54
2	Ti 334.940†	512615.0	505440.8	505.72 µg/L	505.72 ppb	19:03:34
2	Tl 190.801†	3716.4	3787.9	516.64 µg/L	516.64 ppb	19:03:54
2	U 409.014†	7155.8	7351.8	491.24 µg/L	491.24 ppb	19:03:34
2	V 292.402†	96329.7	94838.1	510.24 µg/L	510.24 ppb	19:03:34
2	Zn 213.857†	83756.6	82204.5	505.85 µg/L	505.85 ppb	19:03:34
3	Sc RADIAL	154127.5	154127.5	104 %		19:03:06
3	Al 396.153Radial†	25892.0	24896.9	5106.9 µg/L	5106.9 ppb	19:03:06
3	Ca 317.933Radial†	88729.5	84406.1	5078.5 µg/L	5078.5 ppb	19:03:06
3	Fe 238.204 Radial†	78535.0	75185.4	5059.1 µg/L	5059.1 ppb	19:03:06
3	K 766.490 Radial†	14407.3	12505.9	5142.8 µg/L	5142.8 ppb	19:03:06
3	Mg 279.077 IEC†	13280.2	12568.7	5164.1 µg/L	5164.1 ppb	19:03:06
3	Na 589.592 Radial†	70174.3	66100.4	10033 µg/L	10033 ppb	19:03:06
3	Sr 421.552†	228056.6	218959.9	505.07 µg/L	505.07 ppb	19:03:04
3	Sc 361.383	1769199.8	1769199.8	100.80 %		19:03:57
3	Y 371.029	1057126.2	1057126.2	99.350 %		19:03:57
3	Ag 328.068†	130874.3	126382.5	508.68 µg/L	508.68 ppb	19:03:57
3	As 188.979†	1458.9	1465.0	518.53 µg/L	518.53 ppb	19:04:17
3	B 249.677†	34457.4	30952.0	502.87 µg/L	502.87 ppb	19:03:57
3	Ba 233.527†	117179.8	116406.6	507.27 µg/L	507.27 ppb	19:03:57
3	Be 313.107†	1708406.9	1695555.2	508.99 µg/L	508.99 ppb	19:03:57
3	Cd 226.502†	74904.5	74416.6	510.65 µg/L	510.65 ppb	19:03:57
3	Co 228.616†	37906.3	37776.1	511.19 µg/L	511.19 ppb	19:03:57
3	Cr 267.716†	60746.0	60082.5	506.11 µg/L	506.11 ppb	19:03:57
3	Cu 324.752†	123439.8	119665.5	505.82 µg/L	505.82 ppb	19:03:57
3	Mn 257.610†	383827.0	380587.6	508.48 µg/L	508.48 ppb	19:03:57
3	Mo 202.031†	16114.2	16020.3	510.05 µg/L	510.05 ppb	19:04:17
3	Ni 231.604†	40756.6	40509.1	509.51 µg/L	509.51 ppb	19:03:57
3	P 214.914†	10851.4	10759.8	2557.8 µg/L	2557.8 ppb	19:04:17
3	Pb 220.353†	8520.2	8355.2	513.20 µg/L	513.20 ppb	19:04:17
3	S 181.975 Axial†	1349.3	1250.8	1029.6 µg/L	1029.6 ppb	19:04:17
3	Sb 206.836†	3992.6	3882.6	510.30 µg/L	510.30 ppb	19:04:17
3	Se 196.026†	1311.9	1287.8	518 µg/L	518 ppb	19:04:17
3	SiO2†	52827.1	50652.2	5397.1 µg/L	5397.1 ppb	19:03:57
3	Si 251.611†	159256.7	157036.8	2531.7 µg/L	2531.7 ppb	19:03:57
3	Sn 189.927†	7431.5	7374.7	512.27 µg/L	512.27 ppb	19:04:17
3	Ti 334.940†	510178.1	505220.1	505.49 µg/L	505.49 ppb	19:03:57
3	Tl 190.801†	3717.0	3804.4	518.86 µg/L	518.86 ppb	19:04:17
3	U 409.014†	7438.0	7662.3	510.61 µg/L	510.61 ppb	19:03:57
3	V 292.402†	95654.4	94581.0	508.93 µg/L	508.93 ppb	19:03:57
3	Zn 213.857†	83788.4	82595.0	508.27 µg/L	508.27 ppb	19:03:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769917.6	100.85	%	0.378				0.37%
Sc RADIAL	153445.9	104	%	0.7				0.70%
Y 371.029	1057627.8	99.397	%	0.3551				0.36%
Ag 328.068†	126135.3	507.70	µg/L	0.894	507.70	ppb	0.894	0.18%
QC value within limits for Ag 328.068 Recovery = 101.54%								
Al 396.153Radial†	24945.0	5116.8	µg/L	9.32	5116.8	ppb	9.32	0.18%
QC value within limits for Al 396.153Radial Recovery = 102.34%								
As 188.979†	1462.8	517.77	µg/L	1.037	517.77	ppb	1.037	0.20%
QC value within limits for As 188.979 Recovery = 103.55%								
B 249.677†	30866.5	501.48	µg/L	1.374	501.48	ppb	1.374	0.27%
QC value within limits for B 249.677 Recovery = 100.30%								
Ba 233.527†	116264.3	506.65	µg/L	0.889	506.65	ppb	0.889	0.18%
QC value within limits for Ba 233.527 Recovery = 101.33%								
Be 313.107†	1693817.5	508.47	µg/L	1.060	508.47	ppb	1.060	0.21%
QC value within limits for Be 313.107 Recovery = 101.69%								
Ca 317.933Radial†	84652.2	5093.3	µg/L	16.48	5093.3	ppb	16.48	0.32%
QC value within limits for Ca 317.933Radial Recovery = 101.87%								
Cd 226.502†	74145.0	508.79	µg/L	1.632	508.79	ppb	1.632	0.32%
QC value within limits for Cd 226.502 Recovery = 101.76%								
Co 228.616†	37777.2	511.20	µg/L	1.006	511.20	ppb	1.006	0.20%

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   QC value within limits for Co 228.616  Recovery = 102.24%
Cr 267.716†            59946.4      504.97 µg/L         1.045      504.97 ppb          1.045   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.99%
Cu 324.752†           119571.7      505.42 µg/L         0.566      505.42 ppb          0.566   0.11%
   QC value within limits for Cu 324.752  Recovery = 101.08%
Fe 238.204 Radial†     75270.8      5064.9 µg/L          5.62      5064.9 ppb           5.62   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.30%
K 766.490 Radial†      12535.4      5155.0 µg/L         15.72      5155.0 ppb          15.72   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 103.10%
Mg 279.077 IEC†        12632.7      5190.3 µg/L         24.30      5190.3 ppb          24.30   0.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.81%
Mn 257.610†           380142.1      507.89 µg/L         0.573      507.89 ppb          0.573   0.11%
   QC value within limits for Mn 257.610  Recovery = 101.58%
Mo 202.031†            15992.8      509.18 µg/L         2.028      509.18 ppb          2.028   0.40%
   QC value within limits for Mo 202.031  Recovery = 101.84%
Na 589.592 Radial†     66301.0       10063 µg/L          30.2       10063 ppb           30.2   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 100.63%
Ni 231.604†            40477.8      509.12 µg/L         0.341      509.12 ppb          0.341   0.07%
   QC value within limits for Ni 231.604  Recovery = 101.82%
P 214.914†             10745.6      2554.4 µg/L          7.95      2554.4 ppb           7.95   0.31%
   QC value within limits for P 214.914  Recovery = 102.18%
Pb 220.353†             8374.2      514.37 µg/L         2.922      514.37 ppb          2.922   0.57%
   QC value within limits for Pb 220.353  Recovery = 102.87%
S 181.975 Axial†        1253.2      1031.6 µg/L          1.93      1031.6 ppb           1.93   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 103.16%
Sb 206.836†             3884.3      510.53 µg/L         1.433      510.53 ppb          1.433   0.28%
   QC value within limits for Sb 206.836  Recovery = 102.11%
Se 196.026†             1284.7         516 µg/L           5.3         516 ppb            5.3   1.03%
   QC value within limits for Se 196.026  Recovery = 103.29%
SiO2†                  50599.4      5391.5 µg/L          9.37      5391.5 ppb           9.37   0.17%
   QC value within limits for SiO2  Recovery = 100.82%
Si 251.611†           156716.1      2526.5 µg/L          5.48      2526.5 ppb           5.48   0.22%
   QC value within limits for Si 251.611  Recovery = 101.06%
Sn 189.927†             7384.0      512.91 µg/L         1.966      512.91 ppb          1.966   0.38%
   QC value within limits for Sn 189.927  Recovery = 102.58%
Sr 421.552†           220885.3      509.51 µg/L         4.291      509.51 ppb          4.291   0.84%
   QC value within limits for Sr 421.552  Recovery = 101.90%
Ti 334.940†           504996.2      505.27 µg/L         0.593      505.27 ppb          0.593   0.12%
   QC value within limits for Ti 334.940  Recovery = 101.05%
Tl 190.801†             3806.5      519.14 µg/L         2.644      519.14 ppb          2.644   0.51%
   QC value within limits for Tl 190.801  Recovery = 103.83%
U 409.014†              7571.3      504.94 µg/L        11.928      504.94 ppb         11.928   2.36%
   QC value within limits for U 409.014  Recovery = 100.99%
V 292.402†             94696.0      509.52 µg/L         0.665      509.52 ppb          0.665   0.13%
   QC value within limits for V 292.402  Recovery = 101.90%
Zn 213.857†            82200.3      505.82 µg/L         2.460      505.82 ppb          2.460   0.49%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
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Sequence No.: 50 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 19:04:24**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152976.9	152976.9	103	%			19:04:53
1	Al 396.153Radial†	-73.3	-8.0	-1.6446	µg/L	-1.6446	ppb	19:05:13
1	Ca 317.933Radial†	743.8	20.8	1.2536	µg/L	1.2536	ppb	19:05:13
1	Fe 238.204 Radial†	162.8	16.6	1.1166	µg/L	1.1166	ppb	19:05:13
1	K 766.490 Radial†	1635.0	267.1	109.94	µg/L	109.94	ppb	19:04:53
1	Mg 279.077 IEC†	167.0	-7.4	-3.0364	µg/L	-3.0364	ppb	19:05:13
1	Na 589.592 Radial†	1636.1	374.4	56.755	µg/L	56.755	ppb	19:04:53
1	Sr 421.552†	-225.0	4.2	0.0097	µg/L	0.0097	ppb	19:04:53
1	Sc 361.383	1770150.7	1770150.7	100.86	%			19:06:01
1	Y 371.029	1071299.4	1071299.4	100.68	%			19:06:01
1	Ag 328.068†	3396.2	-79.8	-0.3074	µg/L	-0.3074	ppb	19:06:03
1	As 188.979†	-11.7	6.1	2.1295	µg/L	2.1295	ppb	19:06:23
1	B 249.677†	3230.4	-27.5	-0.4476	µg/L	-0.4476	ppb	19:06:23
1	Ba 233.527†	-158.9	4.6	0.0203	µg/L	0.0203	ppb	19:06:23
1	Be 313.107†	-811.3	-18.8	-0.0055	µg/L	-0.0055	ppb	19:06:03
1	Cd 226.502†	-80.3	30.4	0.2086	µg/L	0.2086	ppb	19:06:23
1	Co 228.616†	-180.0	-6.0	-0.0812	µg/L	-0.0812	ppb	19:06:23
1	Cr 267.716†	176.5	-3.6	-0.0304	µg/L	-0.0304	ppb	19:06:23
1	Cu 324.752†	2909.0	95.3	0.4019	µg/L	0.4019	ppb	19:06:03
1	Mn 257.610†	181.7	4.6	0.0062	µg/L	0.0062	ppb	19:06:23
1	Mo 202.031†	-35.3	-0.2	-0.0064	µg/L	-0.0064	ppb	19:06:23
1	Ni 231.604†	-59.2	19.2	0.2421	µg/L	0.2421	ppb	19:06:23
1	P 214.914†	3.9	-1.2	-0.2898	µg/L	-0.2898	ppb	19:06:23
1	Pb 220.353†	64.4	-33.2	-2.0307	µg/L	-2.0307	ppb	19:06:23
1	S 181.975 Axial†	93.2	4.7	3.8476	µg/L	3.8476	ppb	19:06:23
1	Sb 206.836†	82.6	3.8	0.5029	µg/L	0.5029	ppb	19:06:23
1	Se 196.026†	15.5	1.8	0.722	µg/L	0.722	ppb	19:06:23
1	SiO2†	1768.1	-0.1	-0.0011	µg/L	-0.0011	ppb	19:06:23
1	Si 251.611†	767.2	-188.0	-3.0394	µg/L	-3.0394	ppb	19:06:03
1	Sn 189.927†	-9.9	-7.3	-0.5025	µg/L	-0.5025	ppb	19:06:23
1	Ti 334.940†	732.7	-159.1	-0.1593	µg/L	-0.1593	ppb	19:06:03
1	Tl 190.801†	-108.6	9.4	1.2652	µg/L	1.2652	ppb	19:06:23
1	U 409.014†	-277.3	8.8	0.5927	µg/L	0.5927	ppb	19:06:03
1	V 292.402†	456.5	142.7	0.7580	µg/L	0.7580	ppb	19:06:03
1	Zn 213.857†	560.3	31.0	0.1902	µg/L	0.1902	ppb	19:06:23
2	Sc RADIAL	154316.4	154316.4	104	%			19:05:15
2	Al 396.153Radial†	-39.2	25.3	5.2268	µg/L	5.2268	ppb	19:05:35
2	Ca 317.933Radial†	742.3	13.1	0.7893	µg/L	0.7893	ppb	19:05:35
2	Fe 238.204 Radial†	167.7	20.0	1.3436	µg/L	1.3436	ppb	19:05:35
2	K 766.490 Radial†	1646.7	264.6	108.92	µg/L	108.92	ppb	19:05:15
2	Mg 279.077 IEC†	166.6	-9.2	-3.7902	µg/L	-3.7902	ppb	19:05:35
2	Na 589.592 Radial†	1328.1	65.6	9.8647	µg/L	9.8647	ppb	19:05:15
2	Sr 421.552†	-136.1	91.3	0.2106	µg/L	0.2106	ppb	19:05:15
2	Sc 361.383	1773912.8	1773912.8	101.07	%			19:06:25
2	Y 371.029	1072888.8	1072888.8	100.83	%			19:06:25
2	Ag 328.068†	3900.2	411.7	1.6385	µg/L	1.6385	ppb	19:06:28
2	As 188.979†	-17.5	0.4	0.1424	µg/L	0.1424	ppb	19:06:48
2	B 249.677†	3248.5	-16.3	-0.2662	µg/L	-0.2662	ppb	19:06:48
2	Ba 233.527†	-179.0	-15.0	-0.0650	µg/L	-0.0650	ppb	19:06:48
2	Be 313.107†	-728.5	64.9	0.0192	µg/L	0.0192	ppb	19:06:28
2	Cd 226.502†	-95.1	16.0	0.1097	µg/L	0.1097	ppb	19:06:48
2	Co 228.616†	-171.9	2.4	0.0323	µg/L	0.0323	ppb	19:06:48
2	Cr 267.716†	171.4	-8.9	-0.0743	µg/L	-0.0743	ppb	19:06:48
2	Cu 324.752†	2770.0	-48.4	-0.2045	µg/L	-0.2045	ppb	19:06:28
2	Mn 257.610†	211.8	34.0	0.0456	µg/L	0.0456	ppb	19:06:48
2	Mo 202.031†	-41.9	-6.7	-0.2120	µg/L	-0.2120	ppb	19:06:48
2	Ni 231.604†	-50.2	28.2	0.3548	µg/L	0.3548	ppb	19:06:48
2	P 214.914†	12.9	7.8	1.8693	µg/L	1.8693	ppb	19:06:48
2	Pb 220.353†	79.1	-18.7	-1.1459	µg/L	-1.1459	ppb	19:06:48

2	S 181.975 Axial†	97.0	8.3	6.8009 µg/L	6.8009 ppb	19:06:48
2	Sb 206.836†	91.9	12.9	1.6892 µg/L	1.6892 ppb	19:06:48
2	Se 196.026†	9.6	-4.0	-1.61 µg/L	-1.61 ppb	19:06:48
2	SiO2†	1699.3	-71.8	-7.6906 µg/L	-7.6906 ppb	19:06:48
2	Si 251.611†	831.2	-126.3	-2.0452 µg/L	-2.0452 ppb	19:06:28
2	Sn 189.927†	7.4	9.9	0.6839 µg/L	0.6839 ppb	19:06:48
2	Ti 334.940†	875.2	-19.7	-0.0190 µg/L	-0.0190 ppb	19:06:28
2	Tl 190.801†	-123.5	-5.1	-0.6880 µg/L	-0.6880 ppb	19:06:48
2	U 409.014†	-303.5	-16.5	-1.0172 µg/L	-1.0172 ppb	19:06:28
2	V 292.402†	367.8	54.0	0.2835 µg/L	0.2835 ppb	19:06:28
2	Zn 213.857†	550.7	20.3	0.1237 µg/L	0.1237 ppb	19:06:48
3	Sc RADIAL	153203.8	153203.8	104 %		19:05:37
3	Al 396.153Radial†	-40.1	24.2	4.9835 µg/L	4.9835 ppb	19:05:57
3	Ca 317.933Radial†	747.3	23.1	1.3902 µg/L	1.3902 ppb	19:05:57
3	Fe 238.204 Radial†	154.9	8.8	0.5888 µg/L	0.5888 ppb	19:05:57
3	K 766.490 Radial†	1439.1	75.8	31.204 µg/L	31.204 ppb	19:05:37
3	Mg 279.077 IEC†	162.7	-11.8	-4.8227 µg/L	-4.8227 ppb	19:05:57
3	Na 589.592 Radial†	1502.1	242.7	36.833 µg/L	36.833 ppb	19:05:37
3	Sr 421.552†	-156.8	70.3	0.1623 µg/L	0.1623 ppb	19:05:37
3	Sc 361.383	1793596.2	1793596.2	102.19 %		19:06:50
3	Y 371.029	1083682.1	1083682.1	101.85 %		19:06:50
3	Ag 328.068†	3889.2	358.6	1.4425 µg/L	1.4425 ppb	19:06:52
3	As 188.979†	-19.3	-1.2	-0.4157 µg/L	-0.4157 ppb	19:07:12
3	B 249.677†	3303.6	2.3	0.0377 µg/L	0.0377 ppb	19:07:12
3	Ba 233.527†	-172.5	-6.7	-0.0290 µg/L	-0.0290 ppb	19:07:12
3	Be 313.107†	-759.4	42.5	0.0163 µg/L	0.0163 ppb	19:06:52
3	Cd 226.502†	-85.1	26.8	0.1838 µg/L	0.1838 ppb	19:07:12
3	Co 228.616†	-164.7	11.3	0.1529 µg/L	0.1529 ppb	19:07:12
3	Cr 267.716†	191.2	8.5	0.0625 µg/L	0.0625 ppb	19:07:12
3	Cu 324.752†	2946.1	93.9	0.4054 µg/L	0.4054 ppb	19:06:52
3	Mn 257.610†	188.3	8.7	0.0118 µg/L	0.0118 ppb	19:07:12
3	Mo 202.031†	-33.3	2.1	0.0676 µg/L	0.0676 ppb	19:07:12
3	Ni 231.604†	-59.1	20.0	0.2521 µg/L	0.2521 ppb	19:07:12
3	P 214.914†	16.7	11.4	2.7112 µg/L	2.7112 ppb	19:07:12
3	Pb 220.353†	77.7	-20.9	-1.2903 µg/L	-1.2903 ppb	19:07:12
3	S 181.975 Axial†	99.0	9.2	7.5066 µg/L	7.5066 ppb	19:07:12
3	Sb 206.836†	77.2	-2.6	-0.3343 µg/L	-0.3343 ppb	19:07:12
3	Se 196.026†	6.6	-7.1	-2.85 µg/L	-2.85 ppb	19:07:12
3	SiO2†	1744.1	-46.5	-4.9856 µg/L	-4.9856 ppb	19:07:12
3	Si 251.611†	864.0	-103.2	-1.6763 µg/L	-1.6763 ppb	19:06:52
3	Sn 189.927†	7.3	9.6	0.6673 µg/L	0.6673 ppb	19:07:12
3	Ti 334.940†	660.4	-239.4	-0.2443 µg/L	-0.2443 ppb	19:06:52
3	Tl 190.801†	-121.9	-2.2	-0.3034 µg/L	-0.3034 ppb	19:07:12
3	U 409.014†	-96.1	189.7	11.895 µg/L	11.895 ppb	19:06:52
3	V 292.402†	359.1	41.5	0.2296 µg/L	0.2296 ppb	19:06:52
3	Zn 213.857†	529.7	-6.2	-0.0406 µg/L	-0.0406 ppb	19:07:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779219.9	101.38	%	0.717				0.71%
Sc RADIAL	153499.0	104	%	0.5				0.47%
Y 371.029	1075956.8	101.12	%	0.633				0.63%
Ag 328.068†	230.2	0.9245	µg/L	1.07140	0.9245	ppb	1.07140	115.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.8	2.8552	µg/L	3.89890	2.8552	ppb	3.89890	136.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.6187	µg/L	1.33776	0.6187	ppb	1.33776	216.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-13.8	-0.2253	µg/L	0.24520	-0.2253	ppb	0.24520	108.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.7	-0.0246	µg/L	0.04284	-0.0246	ppb	0.04284	174.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	29.5	0.0100	µg/L	0.01349	0.0100	ppb	0.01349	134.78%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	19.0	1.1444	µg/L	0.31497	1.1444	ppb	0.31497	27.52%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	24.4	0.1674	µg/L	0.05148	0.1674	ppb	0.05148	30.76%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.6	0.0347	µg/L	0.11707	0.0347	ppb	0.11707	337.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.4     -0.0141 µg/L       0.06983     -0.0141 ppb        0.06983 495.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                46.9      0.2009 µg/L       0.35111      0.2009 ppb        0.35111 174.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         15.1      1.0163 µg/L       0.38727      1.0163 ppb        0.38727  38.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         202.5      83.353 µg/L       45.1647      83.353 ppb        45.1647  54.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.5     -3.8831 µg/L       0.89677     -3.8831 ppb        0.89677  23.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.8      0.0212 µg/L       0.02131      0.0212 ppb        0.02131 100.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.6     -0.0503 µg/L       0.14489     -0.0503 ppb        0.14489 288.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        227.6      34.484 µg/L       23.5333      34.484 ppb        23.5333  68.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                22.5      0.2830 µg/L       0.06241      0.2830 ppb        0.06241  22.05%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.0      1.4303 µg/L       1.54794      1.4303 ppb        1.54794 108.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -24.3     -1.4890 µg/L       0.47469     -1.4890 ppb        0.47469  31.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.4      6.0517 µg/L       1.94115      6.0517 ppb        1.94115  32.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.7      0.6192 µg/L       1.01675      0.6192 ppb        1.01675 164.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.1       -1.25 µg/L         1.812       -1.25 ppb          1.812 145.50%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -39.5     -4.2258 µg/L       3.90063     -4.2258 ppb        3.90063  92.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -139.2     -2.2536 µg/L       0.70500     -2.2536 ppb        0.70500  31.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.1      0.2829 µg/L       0.68020      0.2829 ppb        0.68020 240.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                55.3      0.1275 µg/L       0.10486      0.1275 ppb        0.10486  82.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -139.4     -0.1409 µg/L       0.11378     -0.1409 ppb        0.11378  80.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.7      0.0913 µg/L       1.03467      0.0913 ppb        1.03467 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 60.7      3.8234 µg/L       7.03618      3.8234 ppb        7.03618 184.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 79.4      0.4237 µg/L       0.29079      0.4237 ppb        0.29079  68.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.0      0.0911 µg/L       0.11880      0.0911 ppb        0.11880 130.40%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/30/2010 19:19:40
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	156286.5	156286.5	106	%			19:20:15
1	Al 396.153Radial†	26243.4	24886.3	5105.0	µg/L	5105.0	ppb	19:20:15
1	Ca 317.933Radial†	90127.3	84552.5	5087.3	µg/L	5087.3	ppb	19:20:15
1	Fe 238.204 Radial†	79817.9	75358.2	5070.8	µg/L	5070.8	ppb	19:20:15
1	K 766.490 Radial†	14699.5	12591.3	5178.0	µg/L	5178.0	ppb	19:20:15
1	Mg 279.077 IEC†	13655.8	12748.1	5237.5	µg/L	5237.5	ppb	19:20:15
1	Na 589.592 Radial†	71041.1	65990.4	10016	µg/L	10016	ppb	19:20:15
1	Sr 421.552†	230235.7	217999.3	502.85	µg/L	502.85	ppb	19:20:13
1	Sc 361.383	1767254.1	1767254.1	100.69	%			19:20:28
1	Y 371.029	1056127.6	1056127.6	99.256	%			19:20:28
1	Ag 328.068†	129150.0	124813.0	502.35	µg/L	502.35	ppb	19:20:28
1	As 188.979†	1441.8	1449.5	513.04	µg/L	513.04	ppb	19:20:48
1	B 249.677†	34042.4	30577.5	496.80	µg/L	496.80	ppb	19:20:28
1	Ba 233.527†	115383.0	114750.1	500.05	µg/L	500.05	ppb	19:20:28
1	Be 313.107†	1680728.3	1669933.3	501.30	µg/L	501.30	ppb	19:20:28
1	Cd 226.502†	73556.4	73159.7	502.02	µg/L	502.02	ppb	19:20:28
1	Co 228.616†	37215.0	37131.0	502.45	µg/L	502.45	ppb	19:20:28
1	Cr 267.716†	59784.6	59194.1	498.63	µg/L	498.63	ppb	19:20:28
1	Cu 324.752†	121975.1	118345.7	500.24	µg/L	500.24	ppb	19:20:28
1	Mn 257.610†	378077.7	375297.1	501.41	µg/L	501.41	ppb	19:20:28
1	Mo 202.031†	15890.1	15815.4	503.53	µg/L	503.53	ppb	19:20:48
1	Ni 231.604†	40101.9	39903.5	501.90	µg/L	501.90	ppb	19:20:28
1	P 214.914†	10660.2	10581.7	2515.4	µg/L	2515.4	ppb	19:20:48
1	Pb 220.353†	8433.9	8278.8	508.52	µg/L	508.52	ppb	19:20:48
1	S 181.975 Axial†	1333.5	1236.6	1018.0	µg/L	1018.0	ppb	19:20:48
1	Sb 206.836†	3931.0	3825.9	502.86	µg/L	502.86	ppb	19:20:48
1	Se 196.026†	1281.8	1259.4	506	µg/L	506	ppb	19:20:48
1	SiO2†	52030.2	49918.6	5318.9	µg/L	5318.9	ppb	19:20:28
1	Si 251.611†	156714.4	154686.0	2493.7	µg/L	2493.7	ppb	19:20:28
1	Sn 189.927†	7341.0	7293.0	506.59	µg/L	506.59	ppb	19:20:48
1	Ti 334.940†	503822.4	499465.4	499.73	µg/L	499.73	ppb	19:20:28
1	Tl 190.801†	3661.3	3753.1	511.88	µg/L	511.88	ppb	19:20:48
1	U 409.014†	7143.4	7378.0	492.41	µg/L	492.41	ppb	19:20:28
1	V 292.402†	94407.8	93447.5	502.80	µg/L	502.80	ppb	19:20:28
1	Zn 213.857†	82223.3	81132.2	499.24	µg/L	499.24	ppb	19:20:28
2	Sc RADIAL	153506.9	153506.9	104	%			19:20:19
2	Al 396.153Radial†	26020.7	25121.3	5153.5	µg/L	5153.5	ppb	19:20:19
2	Ca 317.933Radial†	88691.0	84713.0	5097.0	µg/L	5097.0	ppb	19:20:19
2	Fe 238.204 Radial†	78351.0	75312.7	5067.7	µg/L	5067.7	ppb	19:20:19
2	K 766.490 Radial†	14350.1	12506.6	5143.1	µg/L	5143.1	ppb	19:20:19
2	Mg 279.077 IEC†	13338.2	12676.1	5207.9	µg/L	5207.9	ppb	19:20:19
2	Na 589.592 Radial†	70350.0	66541.7	10100	µg/L	10100	ppb	19:20:19
2	Sr 421.552†	231308.8	222976.1	514.33	µg/L	514.33	ppb	19:20:17
2	Sc 361.383	1772730.7	1772730.7	101.01	%			19:20:51
2	Y 371.029	1059640.4	1059640.4	99.586	%			19:20:51
2	Ag 328.068†	129147.5	124414.3	500.79	µg/L	500.79	ppb	19:20:51
2	As 188.979†	1444.7	1448.0	512.52	µg/L	512.52	ppb	19:21:11
2	B 249.677†	33956.3	30387.8	493.70	µg/L	493.70	ppb	19:20:51
2	Ba 233.527†	115790.4	114799.5	500.26	µg/L	500.26	ppb	19:20:51
2	Be 313.107†	1687069.9	1671055.2	501.64	µg/L	501.64	ppb	19:20:51
2	Cd 226.502†	73654.9	73031.4	501.14	µg/L	501.14	ppb	19:20:51
2	Co 228.616†	37362.3	37162.7	502.88	µg/L	502.88	ppb	19:20:51
2	Cr 267.716†	59948.8	59173.3	498.45	µg/L	498.45	ppb	19:20:51
2	Cu 324.752†	121936.3	117933.1	498.51	µg/L	498.51	ppb	19:20:51
2	Mn 257.610†	378797.3	374849.6	500.81	µg/L	500.81	ppb	19:20:51
2	Mo 202.031†	15884.2	15760.8	501.80	µg/L	501.80	ppb	19:21:11
2	Ni 231.604†	40279.7	39956.5	502.56	µg/L	502.56	ppb	19:20:51
2	P 214.914†	10674.6	10563.3	2511.0	µg/L	2511.0	ppb	19:21:11
2	Pb 220.353†	8434.4	8253.4	506.95	µg/L	506.95	ppb	19:21:11

2	S 181.975 Axial†	1322.4	1221.5	1005.5 µg/L	1005.5 ppb	19:21:11
2	Sb 206.836†	3954.2	3836.8	504.26 µg/L	504.26 ppb	19:21:11
2	Se 196.026†	1280.7	1254.3	504 µg/L	504 ppb	19:21:11
2	SiO2†	52360.5	50086.0	5336.9 µg/L	5336.9 ppb	19:20:51
2	Si 251.611†	157189.4	154675.4	2493.6 µg/L	2493.6 ppb	19:20:51
2	Sn 189.927†	7330.2	7259.8	504.29 µg/L	504.29 ppb	19:21:11
2	Ti 334.940†	504300.3	498392.8	498.66 µg/L	498.66 ppb	19:20:51
2	Tl 190.801†	3675.4	3755.9	512.25 µg/L	512.25 ppb	19:21:11
2	U 409.014†	7294.0	7505.1	500.46 µg/L	500.46 ppb	19:20:51
2	V 292.402†	94993.4	93737.6	504.33 µg/L	504.33 ppb	19:20:51
2	Zn 213.857†	82164.6	80821.8	497.32 µg/L	497.32 ppb	19:20:51
3	Sc RADIAL	152465.5	152465.5	103 %		19:20:23
3	Al 396.153Radial†	25729.0	25009.6	5130.5 µg/L	5130.5 ppb	19:20:23
3	Ca 317.933Radial†	87628.2	84265.9	5070.1 µg/L	5070.1 ppb	19:20:23
3	Fe 238.204 Radial†	77267.8	74777.8	5031.7 µg/L	5031.7 ppb	19:20:23
3	K 766.490 Radial†	14278.7	12531.8	5153.5 µg/L	5153.5 ppb	19:20:23
3	Mg 279.077 IEC†	13121.7	12554.0	5157.8 µg/L	5157.8 ppb	19:20:23
3	Na 589.592 Radial†	69381.5	66065.3	10027 µg/L	10027 ppb	19:20:23
3	Sr 421.552†	227253.5	220565.6	508.77 µg/L	508.77 ppb	19:20:21
3	Sc 361.383	1774865.9	1774865.9	101.13 %		19:21:14
3	Y 371.029	1060441.2	1060441.2	99.661 %		19:21:14
3	Ag 328.068†	129803.0	124908.7	502.77 µg/L	502.77 ppb	19:21:14
3	As 188.979†	1438.7	1440.4	509.84 µg/L	509.84 ppb	19:21:34
3	B 249.677†	34246.4	30634.2	497.71 µg/L	497.71 ppb	19:21:14
3	Ba 233.527†	116272.3	115138.0	501.74 µg/L	501.74 ppb	19:21:14
3	Be 313.107†	1696617.6	1678487.1	503.87 µg/L	503.87 ppb	19:21:14
3	Cd 226.502†	73905.6	73191.6	502.24 µg/L	502.24 ppb	19:21:14
3	Co 228.616†	37681.5	37433.8	506.55 µg/L	506.55 ppb	19:21:14
3	Cr 267.716†	60007.5	59159.9	498.34 µg/L	498.34 ppb	19:21:14
3	Cu 324.752†	122346.4	118193.3	499.61 µg/L	499.61 ppb	19:21:14
3	Mn 257.610†	380251.1	375836.0	502.13 µg/L	502.13 ppb	19:21:14
3	Mo 202.031†	15900.8	15758.2	501.71 µg/L	501.71 ppb	19:21:34
3	Ni 231.604†	40553.3	40179.1	505.36 µg/L	505.36 ppb	19:21:14
3	P 214.914†	10653.4	10529.6	2503.0 µg/L	2503.0 ppb	19:21:34
3	Pb 220.353†	8446.7	8255.6	507.08 µg/L	507.08 ppb	19:21:34
3	S 181.975 Axial†	1325.5	1223.1	1006.8 µg/L	1006.8 ppb	19:21:34
3	Sb 206.836†	3949.1	3827.0	502.98 µg/L	502.98 ppb	19:21:34
3	Se 196.026†	1305.4	1277.3	513 µg/L	513 ppb	19:21:34
3	SiO2†	52316.9	49980.4	5325.6 µg/L	5325.6 ppb	19:21:14
3	Si 251.611†	157752.2	155044.7	2499.6 µg/L	2499.6 ppb	19:21:14
3	Sn 189.927†	7349.9	7270.5	505.03 µg/L	505.03 ppb	19:21:34
3	Ti 334.940†	506527.5	499994.5	500.26 µg/L	500.26 ppb	19:21:14
3	Tl 190.801†	3664.5	3740.7	510.22 µg/L	510.22 ppb	19:21:34
3	U 409.014†	7372.8	7574.3	504.87 µg/L	504.87 ppb	19:21:14
3	V 292.402†	95285.5	93913.3	505.26 µg/L	505.26 ppb	19:21:14
3	Zn 213.857†	82819.3	81371.4	500.71 µg/L	500.71 ppb	19:21:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1771616.9	100.94	%	0.224				0.22%
Sc RADIAL	154086.3	104	%	1.3				1.28%
Y 371.029	1058736.4	99.501	%	0.2156				0.22%
Ag 328.068†	124712.0	501.97	µg/L	1.043	501.97	ppb	1.043	0.21%
QC value within limits for Ag 328.068 Recovery = 100.39%								
Al 396.153Radial†	25005.7	5129.7	µg/L	24.27	5129.7	ppb	24.27	0.47%
QC value within limits for Al 396.153Radial Recovery = 102.59%								
As 188.979†	1446.0	511.80	µg/L	1.718	511.80	ppb	1.718	0.34%
QC value within limits for As 188.979 Recovery = 102.36%								
B 249.677†	30533.2	496.07	µg/L	2.099	496.07	ppb	2.099	0.42%
QC value within limits for B 249.677 Recovery = 99.21%								
Ba 233.527†	114895.9	500.68	µg/L	0.920	500.68	ppb	0.920	0.18%
QC value within limits for Ba 233.527 Recovery = 100.14%								
Be 313.107†	1673158.5	502.27	µg/L	1.397	502.27	ppb	1.397	0.28%
QC value within limits for Be 313.107 Recovery = 100.45%								
Ca 317.933Radial†	84510.5	5084.8	µg/L	13.63	5084.8	ppb	13.63	0.27%
QC value within limits for Ca 317.933Radial Recovery = 101.70%								
Cd 226.502†	73127.6	501.80	µg/L	0.584	501.80	ppb	0.584	0.12%
QC value within limits for Cd 226.502 Recovery = 100.36%								
Co 228.616†	37242.5	503.96	µg/L	2.253	503.96	ppb	2.253	0.45%

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   QC value within limits for Co 228.616  Recovery = 100.79%
Cr 267.716†            59175.7      498.48 µg/L         0.150      498.48 ppb          0.150   0.03%
   QC value within limits for Cr 267.716  Recovery = 99.70%
Cu 324.752†           118157.4      499.45 µg/L         0.877      499.45 ppb          0.877   0.18%
   QC value within limits for Cu 324.752  Recovery = 99.89%
Fe 238.204 Radial†     75149.6      5056.7 µg/L         21.72      5056.7 ppb          21.72   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.13%
K 766.490 Radial†      12543.2      5158.2 µg/L         17.91      5158.2 ppb          17.91   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 103.16%
Mg 279.077 IEC†        12659.4      5201.1 µg/L         40.25      5201.1 ppb          40.25   0.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.02%
Mn 257.610†           375327.6      501.45 µg/L         0.661      501.45 ppb          0.661   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.29%
Mo 202.031†            15778.1      502.35 µg/L         1.028      502.35 ppb          1.028   0.20%
   QC value within limits for Mo 202.031  Recovery = 100.47%
Na 589.592 Radial†     66199.1       10048 µg/L          45.4       10048 ppb           45.4   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            40013.0      503.27 µg/L         1.840      503.27 ppb          1.840   0.37%
   QC value within limits for Ni 231.604  Recovery = 100.65%
P 214.914†             10558.2      2509.8 µg/L          6.28      2509.8 ppb           6.28   0.25%
   QC value within limits for P 214.914  Recovery = 100.39%
Pb 220.353†             8262.6      507.52 µg/L         0.869      507.52 ppb          0.869   0.17%
   QC value within limits for Pb 220.353  Recovery = 101.50%
S 181.975 Axial†        1227.1      1010.1 µg/L          6.84      1010.1 ppb           6.84   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 101.01%
Sb 206.836†             3829.9      503.37 µg/L         0.778      503.37 ppb          0.778   0.15%
   QC value within limits for Sb 206.836  Recovery = 100.67%
Se 196.026†             1263.7         508 µg/L           4.8         508 ppb            4.8   0.95%
   QC value within limits for Se 196.026  Recovery = 101.61%
SiO2†                  49995.0      5327.1 µg/L          9.09      5327.1 ppb           9.09   0.17%
   QC value within limits for SiO2  Recovery = 99.62%
Si 251.611†           154802.1      2495.6 µg/L          3.41      2495.6 ppb           3.41   0.14%
   QC value within limits for Si 251.611  Recovery = 99.83%
Sn 189.927†             7274.4      505.30 µg/L         1.174      505.30 ppb          1.174   0.23%
   QC value within limits for Sn 189.927  Recovery = 101.06%
Sr 421.552†           220513.7      508.65 µg/L         5.741      508.65 ppb          5.741   1.13%
   QC value within limits for Sr 421.552  Recovery = 101.73%
Ti 334.940†           499284.2      499.55 µg/L         0.818      499.55 ppb          0.818   0.16%
   QC value within limits for Ti 334.940  Recovery = 99.91%
Tl 190.801†             3749.9      511.45 µg/L         1.082      511.45 ppb          1.082   0.21%
   QC value within limits for Tl 190.801  Recovery = 102.29%
U 409.014†              7485.8      499.25 µg/L         6.316      499.25 ppb          6.316   1.27%
   QC value within limits for U 409.014  Recovery = 99.85%
V 292.402†             93699.5      504.13 µg/L         1.244      504.13 ppb          1.244   0.25%
   QC value within limits for V 292.402  Recovery = 100.83%
Zn 213.857†            81108.4      499.09 µg/L         1.702      499.09 ppb          1.702   0.34%
   QC value within limits for Zn 213.857  Recovery = 99.82%
All analyte(s) passed QC.
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Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/30/2010 19:21:42
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	153790.7	153790.7	104	%			19:22:13
1	Al 396.153Radial†	-24.2	39.6	8.1551	µg/L	8.1551	ppb	19:22:33
1	Ca 317.933Radial†	665.7	-58.0	-3.4918	µg/L	-3.4918	ppb	19:22:33
1	Fe 238.204 Radial†	156.4	9.6	0.6492	µg/L	0.6492	ppb	19:22:33
1	K 766.490 Radial†	1573.5	199.7	82.198	µg/L	82.198	ppb	19:22:13
1	Mg 279.077 IEC†	180.3	4.5	1.8471	µg/L	1.8471	ppb	19:22:33
1	Na 589.592 Radial†	1488.0	223.7	33.897	µg/L	33.897	ppb	19:22:13
1	Sr 421.552†	-118.0	108.2	0.2496	µg/L	0.2496	ppb	19:22:13
1	Sc 361.383	1787033.8	1787033.8	101.82	%			19:23:34
1	Y 371.029	1081646.6	1081646.6	101.65	%			19:23:34
1	Ag 328.068†	3606.6	95.0	0.3622	µg/L	0.3622	ppb	19:23:36
1	As 188.979†	-19.5	-1.5	-0.5219	µg/L	-0.5219	ppb	19:23:56
1	B 249.677†	3260.3	-28.3	-0.4617	µg/L	-0.4617	ppb	19:23:56
1	Ba 233.527†	-145.0	19.7	0.0859	µg/L	0.0859	ppb	19:23:56
1	Be 313.107†	-380.3	412.1	0.1199	µg/L	0.1199	ppb	19:23:36
1	Cd 226.502†	-87.2	24.3	0.1671	µg/L	0.1671	ppb	19:23:56
1	Co 228.616†	-173.9	1.6	0.0220	µg/L	0.0220	ppb	19:23:56
1	Cr 267.716†	170.0	-11.6	-0.0879	µg/L	-0.0879	ppb	19:23:56
1	Cu 324.752†	2863.4	23.2	0.0877	µg/L	0.0877	ppb	19:23:36
1	Mn 257.610†	155.6	-22.8	-0.0305	µg/L	-0.0305	ppb	19:23:56
1	Mo 202.031†	-25.7	9.5	0.3034	µg/L	0.3034	ppb	19:23:56
1	Ni 231.604†	-74.3	4.9	0.0620	µg/L	0.0620	ppb	19:23:56
1	P 214.914†	1.0	-4.0	-0.9495	µg/L	-0.9495	ppb	19:23:56
1	Pb 220.353†	88.9	-9.6	-0.5776	µg/L	-0.5776	ppb	19:23:56
1	S 181.975 Axial†	85.6	-3.7	-2.9973	µg/L	-2.9973	ppb	19:23:56
1	Sb 206.836†	92.4	12.7	1.6738	µg/L	1.6738	ppb	19:23:56
1	Se 196.026†	-2.9	-16.4	-6.57	µg/L	-6.57	ppb	19:23:56
1	SiO2†	1759.1	-25.6	-2.7555	µg/L	-2.7555	ppb	19:23:56
1	Si 251.611†	913.8	-51.2	-0.8393	µg/L	-0.8393	ppb	19:23:36
1	Sn 189.927†	10.7	13.1	0.9064	µg/L	0.9064	ppb	19:23:56
1	Ti 334.940†	1016.1	112.4	0.1175	µg/L	0.1175	ppb	19:23:36
1	Tl 190.801†	-123.0	-3.7	-0.4965	µg/L	-0.4965	ppb	19:23:56
1	U 409.014†	-492.6	-200.0	-12.529	µg/L	-12.529	ppb	19:23:36
1	V 292.402†	316.1	0.6	-0.0025	µg/L	-0.0025	ppb	19:23:36
1	Zn 213.857†	565.3	30.7	0.1899	µg/L	0.1899	ppb	19:23:56
2	Sc RADIAL	151051.7	151051.7	102	%			19:22:35
2	Al 396.153Radial†	-64.7	-0.4	-0.1067	µg/L	-0.1067	ppb	19:22:55
2	Ca 317.933Radial†	659.2	-52.8	-3.1777	µg/L	-3.1777	ppb	19:22:55
2	Fe 238.204 Radial†	182.7	38.1	2.5670	µg/L	2.5670	ppb	19:22:55
2	K 766.490 Radial†	1698.8	349.7	143.92	µg/L	143.92	ppb	19:22:35
2	Mg 279.077 IEC†	179.6	7.0	2.8839	µg/L	2.8839	ppb	19:22:55
2	Na 589.592 Radial†	1481.0	242.7	36.732	µg/L	36.732	ppb	19:22:35
2	Sr 421.552†	-190.5	35.2	0.0813	µg/L	0.0813	ppb	19:22:35
2	Sc 361.383	1778422.1	1778422.1	101.33	%			19:23:58
2	Y 371.029	1076452.3	1076452.3	101.17	%			19:23:58
2	Ag 328.068†	3662.9	167.8	0.6748	µg/L	0.6748	ppb	19:24:00
2	As 188.979†	-14.0	3.9	1.3572	µg/L	1.3572	ppb	19:24:20
2	B 249.677†	3284.9	11.5	0.1861	µg/L	0.1861	ppb	19:24:20
2	Ba 233.527†	-159.5	4.7	0.0204	µg/L	0.0204	ppb	19:24:20
2	Be 313.107†	-846.3	-49.6	-0.0121	µg/L	-0.0121	ppb	19:24:00
2	Cd 226.502†	-107.7	3.7	0.0254	µg/L	0.0254	ppb	19:24:20
2	Co 228.616†	-158.7	15.8	0.2141	µg/L	0.2141	ppb	19:24:20
2	Cr 267.716†	182.0	1.1	0.0017	µg/L	0.0017	ppb	19:24:20
2	Cu 324.752†	2877.2	50.5	0.2212	µg/L	0.2212	ppb	19:24:00
2	Mn 257.610†	195.5	17.3	0.0231	µg/L	0.0231	ppb	19:24:20
2	Mo 202.031†	-23.8	11.2	0.3574	µg/L	0.3574	ppb	19:24:20
2	Ni 231.604†	-64.9	13.8	0.1737	µg/L	0.1737	ppb	19:24:20
2	P 214.914†	19.2	14.0	3.3292	µg/L	3.3292	ppb	19:24:20
2	Pb 220.353†	89.8	-8.4	-0.5195	µg/L	-0.5195	ppb	19:24:20

2	S 181.975 Axial†	90.6	1.7	1.3877 µg/L	1.3877 ppb	19:24:20
2	Sb 206.836†	69.4	-9.6	-1.2523 µg/L	-1.2523 ppb	19:24:20
2	Se 196.026†	21.5	7.6	3.06 µg/L	3.06 ppb	19:24:20
2	SiO2†	1730.8	-45.0	-4.8360 µg/L	-4.8360 ppb	19:24:20
2	Si 251.611†	933.9	-27.0	-0.4459 µg/L	-0.4459 ppb	19:24:00
2	Sn 189.927†	5.3	7.8	0.5369 µg/L	0.5369 ppb	19:24:20
2	Ti 334.940†	809.3	-86.9	-0.0912 µg/L	-0.0912 ppb	19:24:00
2	Tl 190.801†	-105.2	13.2	1.7751 µg/L	1.7751 ppb	19:24:20
2	U 409.014†	-136.3	149.3	9.3313 µg/L	9.3313 ppb	19:24:00
2	V 292.402†	255.2	-58.0	-0.2979 µg/L	-0.2979 ppb	19:24:00
2	Zn 213.857†	589.9	57.6	0.3556 µg/L	0.3556 ppb	19:24:20
3	Sc RADIAL	151949.3	151949.3	103 %		19:22:57
3	Al 396.153Radial†	-41.9	22.1	4.5594 µg/L	4.5594 ppb	19:23:17
3	Ca 317.933Radial†	655.8	-60.0	-3.6104 µg/L	-3.6104 ppb	19:23:17
3	Fe 238.204 Radial†	146.0	1.4	0.0926 µg/L	0.0926 ppb	19:23:17
3	K 766.490 Radial†	1689.3	330.7	136.11 µg/L	136.11 ppb	19:22:57
3	Mg 279.077 IEC†	174.2	0.7	0.2976 µg/L	0.2976 ppb	19:23:17
3	Na 589.592 Radial†	1427.0	181.7	27.472 µg/L	27.472 ppb	19:22:57
3	Sr 421.552†	-212.6	14.8	0.0342 µg/L	0.0342 ppb	19:22:57
3	Sc 361.383	1785827.5	1785827.5	101.75 %		19:24:23
3	Y 371.029	1080583.1	1080583.1	101.55 %		19:24:23
3	Ag 328.068†	3512.6	5.0	0.0150 µg/L	0.0150 ppb	19:24:25
3	As 188.979†	-15.8	2.1	0.7425 µg/L	0.7425 ppb	19:24:45
3	B 249.677†	3211.8	-73.8	-1.2042 µg/L	-1.2042 ppb	19:24:45
3	Ba 233.527†	-146.6	18.1	0.0791 µg/L	0.0791 ppb	19:24:45
3	Be 313.107†	-678.5	118.8	0.0332 µg/L	0.0332 ppb	19:24:25
3	Cd 226.502†	-125.8	-13.6	-0.0935 µg/L	-0.0935 ppb	19:24:45
3	Co 228.616†	-168.9	6.4	0.0872 µg/L	0.0872 ppb	19:24:45
3	Cr 267.716†	167.7	-13.7	-0.1091 µg/L	-0.1091 ppb	19:24:45
3	Cu 324.752†	2763.7	-72.8	-0.3134 µg/L	-0.3134 ppb	19:24:25
3	Mn 257.610†	214.0	34.7	0.0464 µg/L	0.0464 ppb	19:24:45
3	Mo 202.031†	-35.4	-0.0	-0.0014 µg/L	-0.0014 ppb	19:24:45
3	Ni 231.604†	-94.0	-14.5	-0.1827 µg/L	-0.1827 ppb	19:24:45
3	P 214.914†	10.4	5.2	1.2474 µg/L	1.2474 ppb	19:24:45
3	Pb 220.353†	78.2	-20.1	-1.2272 µg/L	-1.2272 ppb	19:24:45
3	S 181.975 Axial†	95.1	5.7	4.6840 µg/L	4.6840 ppb	19:24:45
3	Sb 206.836†	82.6	3.1	0.4098 µg/L	0.4098 ppb	19:24:45
3	Se 196.026†	9.2	-4.5	-1.82 µg/L	-1.82 ppb	19:24:45
3	SiO2†	1730.7	-52.2	-5.5870 µg/L	-5.5870 ppb	19:24:45
3	Si 251.611†	858.6	-104.8	-1.6952 µg/L	-1.6952 ppb	19:24:25
3	Sn 189.927†	-4.9	-2.3	-0.1604 µg/L	-0.1604 ppb	19:24:45
3	Ti 334.940†	934.6	32.9	0.0362 µg/L	0.0362 ppb	19:24:25
3	Tl 190.801†	-107.4	11.6	1.5567 µg/L	1.5567 ppb	19:24:45
3	U 409.014†	-418.9	-127.9	-7.9894 µg/L	-7.9894 ppb	19:24:25
3	V 292.402†	392.7	76.1	0.3983 µg/L	0.3983 ppb	19:24:25
3	Zn 213.857†	557.0	22.9	0.1434 µg/L	0.1434 ppb	19:24:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783761.1	101.63	%	0.266				0.26%
Sc RADIAL	152263.9	103	%	0.9				0.92%
Y 371.029	1079560.7	101.46	%	0.258				0.25%
Ag 328.068†	89.3	0.3507	µg/L	0.33002	0.3507	ppb	0.33002	94.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.4	4.2026	µg/L	4.14243	4.2026	ppb	4.14243	98.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.5259	µg/L	0.95810	0.5259	ppb	0.95810	182.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.2	-0.4933	µg/L	0.69566	-0.4933	ppb	0.69566	141.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.2	0.0618	µg/L	0.03601	0.0618	ppb	0.03601	58.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	160.4	0.0470	µg/L	0.06704	0.0470	ppb	0.06704	142.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-57.0	-3.4266	µg/L	0.22360	-3.4266	ppb	0.22360	6.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.8	0.0330	µg/L	0.13047	0.0330	ppb	0.13047	395.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.1077	µg/L	0.09768	0.1077	ppb	0.09768	90.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -8.1     -0.0651 µg/L      0.05879     -0.0651 ppb       0.05879  90.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               0.3     -0.0015 µg/L      0.27823     -0.0015 ppb       0.27823 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       16.4      1.1029 µg/L      1.29810      1.1029 ppb       1.29810 117.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       293.4      120.74 µg/L       33.609      120.74 ppb        33.609  27.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.1      1.6762 µg/L      1.30158      1.6762 ppb       1.30158  77.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               9.8      0.0130 µg/L      0.03943      0.0130 ppb       0.03943 303.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.9      0.2198 µg/L      0.19348      0.2198 ppb       0.19348  88.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.1      32.700 µg/L       4.7446      32.700 ppb        4.7446  14.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.4      0.0176 µg/L      0.18229      0.0176 ppb       0.18229 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                5.1      1.2090 µg/L      2.13959      1.2090 ppb       2.13959 176.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -12.7     -0.7747 µg/L      0.39288     -0.7747 ppb       0.39288  50.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.2      1.0248 µg/L      3.85350      1.0248 ppb       3.85350 376.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.1      0.2771 µg/L      1.46753      0.2771 ppb       1.46753 529.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -4.4       -1.78 µg/L        4.815       -1.78 ppb         4.815 271.26%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -40.9     -4.3928 µg/L      1.46685     -4.3928 ppb       1.46685  33.39%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -61.0     -0.9935 µg/L      0.63878     -0.9935 ppb       0.63878  64.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.2      0.4276 µg/L      0.54176      0.4276 ppb       0.54176 126.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              52.7      0.1217 µg/L      0.11326      0.1217 ppb       0.11326  93.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              19.5      0.0208 µg/L      0.10521      0.0208 ppb       0.10521 505.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.0      0.9451 µg/L      1.25324      0.9451 ppb       1.25324 132.61%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -59.6     -3.7291 µg/L     11.53618     -3.7291 ppb      11.53618 309.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                6.3      0.0327 µg/L      0.34943      0.0327 ppb       0.34943 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              37.0      0.2296 µg/L      0.11155      0.2296 ppb       0.11155  48.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 70
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/30/2010 19:43:37
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	152566.0	152566.0	103	%			19:44:11
1	Al 396.153Radial†	25606.8	24874.8	5102.8	µg/L	5102.8	ppb	19:44:11
1	Ca 317.933Radial†	87089.3	83687.8	5035.3	µg/L	5035.3	ppb	19:44:11
1	Fe 238.204 Radial†	76897.0	74369.1	5004.2	µg/L	5004.2	ppb	19:44:11
1	K 766.490 Radial†	14096.9	12346.5	5077.2	µg/L	5077.2	ppb	19:44:11
1	Mg 279.077 IEC†	13148.8	12571.8	5165.1	µg/L	5165.1	ppb	19:44:11
1	Na 589.592 Radial†	69266.8	65909.9	10004	µg/L	10004	ppb	19:44:11
1	Sr 421.552†	228770.0	221889.9	511.83	µg/L	511.83	ppb	19:44:09
1	Sc 361.383	1761814.6	1761814.6	100.38	%			19:44:38
1	Y 371.029	1053404.8	1053404.8	99.000	%			19:44:38
1	Ag 328.068†	128558.3	124619.6	501.60	µg/L	501.60	ppb	19:44:38
1	As 188.979†	1411.7	1424.0	504.08	µg/L	504.08	ppb	19:44:58
1	B 249.677†	33506.8	30148.3	489.81	µg/L	489.81	ppb	19:44:38
1	Ba 233.527†	114918.9	114641.6	499.57	µg/L	499.57	ppb	19:44:38
1	Be 313.107†	1674925.7	1669306.3	501.12	µg/L	501.12	ppb	19:44:38
1	Cd 226.502†	72672.3	72504.4	497.53	µg/L	497.53	ppb	19:44:38
1	Co 228.616†	36934.5	36965.7	500.22	µg/L	500.22	ppb	19:44:38
1	Cr 267.716†	59419.2	59013.4	497.10	µg/L	497.10	ppb	19:44:38
1	Cu 324.752†	121410.8	118157.6	499.45	µg/L	499.45	ppb	19:44:38
1	Mn 257.610†	376245.0	374630.7	500.52	µg/L	500.52	ppb	19:44:38
1	Mo 202.031†	15680.1	15654.9	498.42	µg/L	498.42	ppb	19:44:58
1	Ni 231.604†	39814.8	39740.4	499.84	µg/L	499.84	ppb	19:44:38
1	P 214.914†	10503.2	10458.0	2485.9	µg/L	2485.9	ppb	19:44:58
1	Pb 220.353†	8303.5	8174.7	502.12	µg/L	502.12	ppb	19:44:58
1	S 181.975 Axial†	1302.0	1209.3	995.52	µg/L	995.52	ppb	19:44:58
1	Sb 206.836†	3900.6	3807.6	500.41	µg/L	500.41	ppb	19:44:58
1	Se 196.026†	1263.4	1245.0	501	µg/L	501	ppb	19:44:58
1	SiO2†	51906.7	49955.1	5323.1	µg/L	5323.1	ppb	19:44:38
1	Si 251.611†	155739.9	154195.7	2485.9	µg/L	2485.9	ppb	19:44:38
1	Sn 189.927†	7205.5	7180.5	498.80	µg/L	498.80	ppb	19:44:58
1	Ti 334.940†	502045.9	499240.4	499.51	µg/L	499.51	ppb	19:44:38
1	Tl 190.801†	3589.7	3693.1	503.82	µg/L	503.82	ppb	19:44:58
1	U 409.014†	7397.4	7652.8	509.62	µg/L	509.62	ppb	19:44:38
1	V 292.402†	94045.0	93375.5	502.38	µg/L	502.38	ppb	19:44:38
1	Zn 213.857†	81372.5	80536.7	495.57	µg/L	495.57	ppb	19:44:38
2	Sc RADIAL	150945.7	150945.7	102	%			19:44:15
2	Al 396.153Radial†	25340.4	24880.1	5103.4	µg/L	5103.4	ppb	19:44:15
2	Ca 317.933Radial†	86035.3	83561.3	5027.7	µg/L	5027.7	ppb	19:44:15
2	Fe 238.204 Radial†	76125.2	74413.0	5007.2	µg/L	5007.2	ppb	19:44:15
2	K 766.490 Radial†	14026.0	12423.6	5109.0	µg/L	5109.0	ppb	19:44:15
2	Mg 279.077 IEC†	12973.0	12536.4	5150.8	µg/L	5150.8	ppb	19:44:15
2	Na 589.592 Radial†	68752.2	66126.4	10037	µg/L	10037	ppb	19:44:15
2	Sr 421.552†	224288.2	219880.0	507.19	µg/L	507.19	ppb	19:44:13
2	Sc 361.383	1735634.7	1735634.7	98.892	%			19:45:01
2	Y 371.029	1039436.8	1039436.8	97.687	%			19:45:01
2	Ag 328.068†	126843.5	124817.4	502.37	µg/L	502.37	ppb	19:45:01
2	As 188.979†	1419.7	1453.3	514.36	µg/L	514.36	ppb	19:45:21
2	B 249.677†	33097.4	30237.8	491.28	µg/L	491.28	ppb	19:45:01
2	Ba 233.527†	113015.6	114443.8	498.72	µg/L	498.72	ppb	19:45:01
2	Be 313.107†	1643853.4	1663053.5	499.24	µg/L	499.24	ppb	19:45:01
2	Cd 226.502†	71236.7	72144.7	495.05	µg/L	495.05	ppb	19:45:01
2	Co 228.616†	36240.3	36818.7	498.23	µg/L	498.23	ppb	19:45:01
2	Cr 267.716†	58499.4	58976.2	496.79	µg/L	496.79	ppb	19:45:01
2	Cu 324.752†	119280.1	117827.4	498.05	µg/L	498.05	ppb	19:45:01
2	Mn 257.610†	369723.3	373689.4	499.26	µg/L	499.26	ppb	19:45:01
2	Mo 202.031†	15815.6	16027.5	510.28	µg/L	510.28	ppb	19:45:21
2	Ni 231.604†	39009.7	39524.6	497.13	µg/L	497.13	ppb	19:45:01
2	P 214.914†	10517.9	10630.8	2527.1	µg/L	2527.1	ppb	19:45:21
2	Pb 220.353†	8340.1	8336.6	512.07	µg/L	512.07	ppb	19:45:21

2	S 181.975 Axial†	1311.8	1238.8	1019.8 µg/L	1019.8 ppb	19:45:21
2	Sb 206.836†	3916.3	3882.1	510.35 µg/L	510.35 ppb	19:45:21
2	Se 196.026†	1266.7	1267.3	509 µg/L	509 ppb	19:45:21
2	SiO2†	50846.1	49662.6	5291.3 µg/L	5291.3 ppb	19:45:01
2	Si 251.611†	152986.3	153751.4	2478.5 µg/L	2478.5 ppb	19:45:01
2	Sn 189.927†	7252.2	7336.0	509.57 µg/L	509.57 ppb	19:45:21
2	Ti 334.940†	494064.0	498713.0	498.98 µg/L	498.98 ppb	19:45:01
2	Tl 190.801†	3648.8	3806.8	519.09 µg/L	519.09 ppb	19:45:21
2	U 409.014†	7183.4	7547.6	502.96 µg/L	502.96 ppb	19:45:01
2	V 292.402†	92468.1	93194.1	501.53 µg/L	501.53 ppb	19:45:01
2	Zn 213.857†	79957.4	80328.5	494.30 µg/L	494.30 ppb	19:45:01
3	Sc RADIAL	151489.6	151489.6	102 %		19:44:19
3	Al 396.153Radial†	25711.8	25153.5	5160.2 µg/L	5160.2 ppb	19:44:19
3	Ca 317.933Radial†	86682.1	83890.0	5047.5 µg/L	5047.5 ppb	19:44:19
3	Fe 238.204 Radial†	76565.6	74575.2	5018.1 µg/L	5018.1 ppb	19:44:19
3	K 766.490 Radial†	14158.1	12503.2	5141.7 µg/L	5141.7 ppb	19:44:19
3	Mg 279.077 IEC†	12873.6	12393.8	5092.1 µg/L	5092.1 ppb	19:44:19
3	Na 589.592 Radial†	68862.0	65991.8	10016 µg/L	10016 ppb	19:44:19
3	Sr 421.552†	226406.2	221158.3	510.14 µg/L	510.14 ppb	19:44:17
3	Sc 361.383	1773887.5	1773887.5	101.07 %		19:45:24
3	Y 371.029	1060251.5	1060251.5	99.644 %		19:45:24
3	Ag 328.068†	129452.8	124633.0	501.67 µg/L	501.67 ppb	19:45:24
3	As 188.979†	1431.2	1433.7	507.50 µg/L	507.50 ppb	19:45:44
3	B 249.677†	34092.9	30501.1	495.55 µg/L	495.55 ppb	19:45:24
3	Ba 233.527†	115983.7	114916.0	500.77 µg/L	500.77 ppb	19:45:24
3	Be 313.107†	1692932.3	1675766.1	503.06 µg/L	503.06 ppb	19:45:24
3	Cd 226.502†	73593.8	72923.5	500.40 µg/L	500.40 ppb	19:45:24
3	Co 228.616†	37396.7	37172.6	503.02 µg/L	503.02 ppb	19:45:24
3	Cr 267.716†	60047.7	59232.4	498.94 µg/L	498.94 ppb	19:45:24
3	Cu 324.752†	122228.1	118143.0	499.40 µg/L	499.40 ppb	19:45:24
3	Mn 257.610†	379880.6	375676.8	501.92 µg/L	501.92 ppb	19:45:24
3	Mo 202.031†	15825.9	15692.8	499.63 µg/L	499.63 ppb	19:45:44
3	Ni 231.604†	40369.0	40018.9	503.35 µg/L	503.35 ppb	19:45:24
3	P 214.914†	10636.2	10518.4	2500.3 µg/L	2500.3 ppb	19:45:44
3	Pb 220.353†	8362.2	8176.6	502.23 µg/L	502.23 ppb	19:45:44
3	S 181.975 Axial†	1322.1	1220.4	1004.6 µg/L	1004.6 ppb	19:45:44
3	Sb 206.836†	3918.4	3798.8	499.24 µg/L	499.24 ppb	19:45:44
3	Se 196.026†	1280.4	1253.2	504 µg/L	504 ppb	19:45:44
3	SiO2†	52263.9	49956.6	5323.1 µg/L	5323.1 ppb	19:45:24
3	Si 251.611†	157320.2	154703.3	2494.1 µg/L	2494.1 ppb	19:45:24
3	Sn 189.927†	7327.9	7252.8	503.81 µg/L	503.81 ppb	19:45:44
3	Ti 334.940†	505987.1	499736.1	500.01 µg/L	500.01 ppb	19:45:24
3	Tl 190.801†	3636.5	3715.0	506.77 µg/L	506.77 ppb	19:45:44
3	U 409.014†	7546.3	7750.0	515.79 µg/L	515.79 ppb	19:45:24
3	V 292.402†	94959.8	93643.0	503.82 µg/L	503.82 ppb	19:45:24
3	Zn 213.857†	82538.5	81138.7	499.28 µg/L	499.28 ppb	19:45:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757112.3	100.12	%	1.114				1.11%
Sc RADIAL	151667.1	103	%	0.6				0.54%
Y 371.029	1051031.0	98.777	%	0.9970				1.01%
Ag 328.068†	124690.0	501.88	µg/L	0.423	501.88	ppb	0.423	0.08%
QC value within limits for Ag 328.068 Recovery = 100.38%								
Al 396.153Radial†	24969.5	5122.2	µg/L	32.97	5122.2	ppb	32.97	0.64%
QC value within limits for Al 396.153Radial Recovery = 102.44%								
As 188.979†	1437.0	508.65	µg/L	5.235	508.65	ppb	5.235	1.03%
QC value within limits for As 188.979 Recovery = 101.73%								
B 249.677†	30295.7	492.21	µg/L	2.983	492.21	ppb	2.983	0.61%
QC value within limits for B 249.677 Recovery = 98.44%								
Ba 233.527†	114667.1	499.69	µg/L	1.032	499.69	ppb	1.032	0.21%
QC value within limits for Ba 233.527 Recovery = 99.94%								
Be 313.107†	1669375.3	501.14	µg/L	1.910	501.14	ppb	1.910	0.38%
QC value within limits for Be 313.107 Recovery = 100.23%								
Ca 317.933Radial†	83713.0	5036.8	µg/L	9.97	5036.8	ppb	9.97	0.20%
QC value within limits for Ca 317.933Radial Recovery = 100.74%								
Cd 226.502†	72524.2	497.66	µg/L	2.677	497.66	ppb	2.677	0.54%
QC value within limits for Cd 226.502 Recovery = 99.53%								
Co 228.616†	36985.7	500.49	µg/L	2.405	500.49	ppb	2.405	0.48%

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   QC value within limits for Co 228.616  Recovery = 100.10%
Cr 267.716†            59074.0      497.61 µg/L         1.163      497.61 ppb          1.163   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.52%
Cu 324.752†           118042.7      498.97 µg/L         0.792      498.97 ppb          0.792   0.16%
   QC value within limits for Cu 324.752  Recovery = 99.79%
Fe 238.204 Radial†     74452.5      5009.8 µg/L          7.30      5009.8 ppb           7.30   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.20%
K 766.490 Radial†      12424.4      5109.3 µg/L         32.25      5109.3 ppb          32.25   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 102.19%
Mg 279.077 IEC†        12500.7      5136.0 µg/L         38.70      5136.0 ppb          38.70   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.72%
Mn 257.610†           374665.6      500.57 µg/L         1.330      500.57 ppb          1.330   0.27%
   QC value within limits for Mn 257.610  Recovery = 100.11%
Mo 202.031†            15791.7      502.78 µg/L         6.524      502.78 ppb          6.524   1.30%
   QC value within limits for Mo 202.031  Recovery = 100.56%
Na 589.592 Radial†     66009.3       10019 µg/L          16.6       10019 ppb           16.6   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.19%
Ni 231.604†            39761.3      500.11 µg/L         3.116      500.11 ppb          3.116   0.62%
   QC value within limits for Ni 231.604  Recovery = 100.02%
P 214.914†             10535.7      2504.4 µg/L         20.89      2504.4 ppb          20.89   0.83%
   QC value within limits for P 214.914  Recovery = 100.18%
Pb 220.353†             8229.3      505.47 µg/L         5.710      505.47 ppb          5.710   1.13%
   QC value within limits for Pb 220.353  Recovery = 101.09%
S 181.975 Axial†        1222.8      1006.6 µg/L         12.25      1006.6 ppb          12.25   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 100.66%
Sb 206.836†             3829.5      503.33 µg/L         6.107      503.33 ppb          6.107   1.21%
   QC value within limits for Sb 206.836  Recovery = 100.67%
Se 196.026†             1255.2         505 µg/L           4.5        505 ppb            4.5   0.89%
   QC value within limits for Se 196.026  Recovery = 100.93%
SiO2†                  49858.1      5312.5 µg/L         18.37      5312.5 ppb          18.37   0.35%
   QC value within limits for SiO2  Recovery = 99.35%
Si 251.611†           154216.8      2486.2 µg/L          7.80      2486.2 ppb           7.80   0.31%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             7256.4      504.06 µg/L         5.387      504.06 ppb          5.387   1.07%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†           220976.1      509.72 µg/L         2.347      509.72 ppb          2.347   0.46%
   QC value within limits for Sr 421.552  Recovery = 101.94%
Ti 334.940†           499229.8      499.50 µg/L         0.512      499.50 ppb          0.512   0.10%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†             3738.3      509.89 µg/L         8.100      509.89 ppb          8.100   1.59%
   QC value within limits for Tl 190.801  Recovery = 101.98%
U 409.014†              7650.2      509.46 µg/L         6.414      509.46 ppb          6.414   1.26%
   QC value within limits for U 409.014  Recovery = 101.89%
V 292.402†             93404.2      502.58 µg/L         1.157      502.58 ppb          1.157   0.23%
   QC value within limits for V 292.402  Recovery = 100.52%
Zn 213.857†            80668.0      496.38 µg/L         2.589      496.38 ppb          2.589   0.52%
   QC value within limits for Zn 213.857  Recovery = 99.28%
All analyte(s) passed QC.
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Sequence No.: 71
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/30/2010 19:45:52
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	152697.9	152697.9	103	%			19:46:23
1	Al 396.153Radial†	-22.5	41.0	8.4493	µg/L	8.4493	ppb	19:46:43
1	Ca 317.933Radial†	674.1	-45.4	-2.7299	µg/L	-2.7299	ppb	19:46:43
1	Fe 238.204 Radial†	153.6	8.0	0.5368	µg/L	0.5368	ppb	19:46:43
1	K 766.490 Radial†	1724.3	356.5	146.71	µg/L	146.71	ppb	19:46:23
1	Mg 279.077 IEC†	177.5	3.0	1.2396	µg/L	1.2396	ppb	19:46:43
1	Na 589.592 Radial†	1442.1	189.5	28.651	µg/L	28.651	ppb	19:46:23
1	Sr 421.552†	-300.8	-69.6	-0.1605	µg/L	-0.1605	ppb	19:46:23
1	Sc 361.383	1753607.2	1753607.2	99.916	%			19:47:44
1	Y 371.029	1062664.2	1062664.2	99.870	%			19:47:44
1	Ag 328.068†	3454.6	10.4	0.0332	µg/L	0.0332	ppb	19:47:47
1	As 188.979†	-6.6	11.1	3.8795	µg/L	3.8795	ppb	19:48:07
1	B 249.677†	3268.1	40.5	0.6600	µg/L	0.6600	ppb	19:48:07
1	Ba 233.527†	-146.4	15.6	0.0680	µg/L	0.0680	ppb	19:48:07
1	Be 313.107†	-650.8	134.3	0.0380	µg/L	0.0380	ppb	19:47:47
1	Cd 226.502†	-89.4	20.5	0.1408	µg/L	0.1408	ppb	19:48:07
1	Co 228.616†	-151.4	20.9	0.2821	µg/L	0.2821	ppb	19:48:07
1	Cr 267.716†	171.7	-6.7	-0.0505	µg/L	-0.0505	ppb	19:48:07
1	Cu 324.752†	2903.9	117.4	0.4888	µg/L	0.4888	ppb	19:47:47
1	Mn 257.610†	203.7	28.3	0.0378	µg/L	0.0378	ppb	19:48:07
1	Mo 202.031†	-28.4	6.3	0.2007	µg/L	0.2007	ppb	19:48:07
1	Ni 231.604†	-88.0	-10.2	-0.1286	µg/L	-0.1286	ppb	19:48:07
1	P 214.914†	16.5	11.5	2.7270	µg/L	2.7270	ppb	19:48:07
1	Pb 220.353†	85.2	-11.7	-0.7084	µg/L	-0.7084	ppb	19:48:07
1	S 181.975 Axial†	90.3	2.7	2.1839	µg/L	2.1839	ppb	19:48:07
1	Sb 206.836†	75.6	-2.4	-0.3124	µg/L	-0.3124	ppb	19:48:07
1	Se 196.026†	4.3	-9.3	-3.71	µg/L	-3.71	ppb	19:48:07
1	SiO2†	1732.3	-19.3	-2.0707	µg/L	-2.0707	ppb	19:48:07
1	Si 251.611†	820.3	-127.7	-2.0677	µg/L	-2.0677	ppb	19:47:47
1	Sn 189.927†	-7.1	-4.6	-0.3192	µg/L	-0.3192	ppb	19:48:07
1	Ti 334.940†	726.5	-158.5	-0.1558	µg/L	-0.1558	ppb	19:47:47
1	Tl 190.801†	-110.3	6.7	0.9024	µg/L	0.9024	ppb	19:48:07
1	U 409.014†	-405.9	-122.5	-7.6645	µg/L	-7.6645	ppb	19:47:47
1	V 292.402†	329.5	20.0	0.1029	µg/L	0.1029	ppb	19:47:47
1	Zn 213.857†	562.8	38.7	0.2403	µg/L	0.2403	ppb	19:48:07
2	Sc RADIAL	151307.7	151307.7	102	%			19:46:45
2	Al 396.153Radial†	-38.2	25.5	5.2389	µg/L	5.2389	ppb	19:47:05
2	Ca 317.933Radial†	690.3	-23.5	-1.4153	µg/L	-1.4153	ppb	19:47:05
2	Fe 238.204 Radial†	172.0	27.3	1.8389	µg/L	1.8389	ppb	19:47:05
2	K 766.490 Radial†	1548.3	199.9	82.252	µg/L	82.252	ppb	19:46:45
2	Mg 279.077 IEC†	208.1	34.5	14.177	µg/L	14.177	ppb	19:47:05
2	Na 589.592 Radial†	1453.5	213.5	32.346	µg/L	32.346	ppb	19:46:45
2	Sr 421.552†	-254.6	-27.1	-0.0624	µg/L	-0.0624	ppb	19:46:45
2	Sc 361.383	1759391.1	1759391.1	100.25	%			19:48:09
2	Y 371.029	1065998.1	1065998.1	100.18	%			19:48:09
2	Ag 328.068†	3348.6	-106.7	-0.4219	µg/L	-0.4219	ppb	19:48:11
2	As 188.979†	-13.2	4.6	1.5887	µg/L	1.5887	ppb	19:48:31
2	B 249.677†	3221.5	-16.7	-0.2733	µg/L	-0.2733	ppb	19:48:31
2	Ba 233.527†	-168.8	-6.3	-0.0273	µg/L	-0.0273	ppb	19:48:31
2	Be 313.107†	-640.0	147.2	0.0454	µg/L	0.0454	ppb	19:48:11
2	Cd 226.502†	-98.6	11.7	0.0799	µg/L	0.0799	ppb	19:48:31
2	Co 228.616†	-167.7	5.2	0.0697	µg/L	0.0697	ppb	19:48:31
2	Cr 267.716†	154.6	-24.3	-0.2086	µg/L	-0.2086	ppb	19:48:31
2	Cu 324.752†	2944.9	148.7	0.6306	µg/L	0.6306	ppb	19:48:11
2	Mn 257.610†	200.6	24.5	0.0322	µg/L	0.0322	ppb	19:48:31
2	Mo 202.031†	-17.5	17.3	0.5509	µg/L	0.5509	ppb	19:48:31
2	Ni 231.604†	-82.1	-4.0	-0.0498	µg/L	-0.0498	ppb	19:48:31
2	P 214.914†	10.1	5.1	1.1941	µg/L	1.1941	ppb	19:48:31
2	Pb 220.353†	72.7	-24.4	-1.4953	µg/L	-1.4953	ppb	19:48:31

2	S 181.975 Axial†	91.8	3.8	3.1599 µg/L	3.1599 ppb	19:48:31
2	Sb 206.836†	82.3	4.0	0.5386 µg/L	0.5386 ppb	19:48:31
2	Se 196.026†	6.6	-7.0	-2.80 µg/L	-2.80 ppb	19:48:31
2	SiO2†	1739.4	-18.0	-1.9350 µg/L	-1.9350 ppb	19:48:31
2	Si 251.611†	838.0	-112.7	-1.8291 µg/L	-1.8291 ppb	19:48:11
2	Sn 189.927†	-7.2	-4.6	-0.3186 µg/L	-0.3186 ppb	19:48:31
2	Ti 334.940†	685.9	-201.4	-0.2046 µg/L	-0.2046 ppb	19:48:11
2	Tl 190.801†	-109.7	7.6	1.0203 µg/L	1.0203 ppb	19:48:31
2	U 409.014†	-218.0	66.3	4.1377 µg/L	4.1377 ppb	19:48:11
2	V 292.402†	265.6	-44.8	-0.2305 µg/L	-0.2305 ppb	19:48:11
2	Zn 213.857†	575.4	49.5	0.3065 µg/L	0.3065 ppb	19:48:31
3	Sc RADIAL	151056.1	151056.1	102 %		19:47:07
3	Al 396.153Radial†	-63.7	0.5	0.0879 µg/L	0.0879 ppb	19:47:27
3	Ca 317.933Radial†	683.6	-29.0	-1.7456 µg/L	-1.7456 ppb	19:47:27
3	Fe 238.204 Radial†	179.1	34.6	2.3290 µg/L	2.3290 ppb	19:47:27
3	K 766.490 Radial†	1628.9	281.3	115.79 µg/L	115.79 ppb	19:47:07
3	Mg 279.077 IEC†	153.2	-18.8	-7.7192 µg/L	-7.7192 ppb	19:47:27
3	Na 589.592 Radial†	1482.1	243.9	36.925 µg/L	36.925 ppb	19:47:07
3	Sr 421.552†	-226.1	0.4	0.0009 µg/L	0.0009 ppb	19:47:07
3	Sc 361.383	1791231.6	1791231.6	102.06 %		19:48:33
3	Y 371.029	1084775.0	1084775.0	101.95 %		19:48:33
3	Ag 328.068†	3471.8	-45.3	-0.1685 µg/L	-0.1685 ppb	19:48:35
3	As 188.979†	-16.7	1.3	0.4666 µg/L	0.4666 ppb	19:48:55
3	B 249.677†	3224.2	-71.2	-1.1607 µg/L	-1.1607 ppb	19:48:55
3	Ba 233.527†	-168.2	-2.6	-0.0112 µg/L	-0.0112 ppb	19:48:55
3	Be 313.107†	-721.0	79.1	0.0259 µg/L	0.0259 ppb	19:48:35
3	Cd 226.502†	-83.2	28.5	0.1958 µg/L	0.1958 ppb	19:48:55
3	Co 228.616†	-174.9	1.0	0.0138 µg/L	0.0138 ppb	19:48:55
3	Cr 267.716†	180.6	-1.7	-0.0194 µg/L	-0.0194 ppb	19:48:55
3	Cu 324.752†	2861.8	15.1	0.0696 µg/L	0.0696 ppb	19:48:35
3	Mn 257.610†	233.2	52.9	0.0710 µg/L	0.0710 ppb	19:48:55
3	Mo 202.031†	-24.4	10.8	0.3441 µg/L	0.3441 ppb	19:48:55
3	Ni 231.604†	-45.5	33.3	0.4192 µg/L	0.4192 ppb	19:48:55
3	P 214.914†	-2.2	-7.2	-1.7214 µg/L	-1.7214 ppb	19:48:55
3	Pb 220.353†	86.2	-12.5	-0.7707 µg/L	-0.7707 ppb	19:48:55
3	S 181.975 Axial†	85.7	-3.7	-3.0674 µg/L	-3.0674 ppb	19:48:55
3	Sb 206.836†	89.9	10.0	1.3116 µg/L	1.3116 ppb	19:48:55
3	Se 196.026†	19.0	5.0	2.02 µg/L	2.02 ppb	19:48:55
3	SiO2†	1719.8	-68.0	-7.2773 µg/L	-7.2773 ppb	19:48:55
3	Si 251.611†	833.1	-132.4	-2.1429 µg/L	-2.1429 ppb	19:48:35
3	Sn 189.927†	-11.8	-9.0	-0.6249 µg/L	-0.6249 ppb	19:48:55
3	Ti 334.940†	1017.8	111.7	0.1095 µg/L	0.1095 ppb	19:48:35
3	Tl 190.801†	-106.9	12.4	1.6637 µg/L	1.6637 ppb	19:48:55
3	U 409.014†	-171.3	115.9	7.2747 µg/L	7.2747 ppb	19:48:35
3	V 292.402†	361.8	44.7	0.2453 µg/L	0.2453 ppb	19:48:35
3	Zn 213.857†	593.0	56.4	0.3471 µg/L	0.3471 ppb	19:48:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1768076.6	100.74	%	1.154				1.15%
Sc RADIAL	151687.2	103	%	0.6				0.58%
Y 371.029	1071145.7	100.67	%	1.120				1.11%
Ag 328.068†	-47.2	-0.1857	µg/L	0.22805	-0.1857	ppb	0.22805	122.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.4	4.5920	µg/L	4.21810	4.5920	ppb	4.21810	91.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.7	1.9783	µg/L	1.73946	1.9783	ppb	1.73946	87.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-15.8	-0.2580	µg/L	0.91043	-0.2580	ppb	0.91043	352.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.2	0.0098	µg/L	0.05102	0.0098	ppb	0.05102	519.34%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	120.2	0.0364	µg/L	0.00983	0.0364	ppb	0.00983	26.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-32.6	-1.9636	µg/L	0.68385	-1.9636	ppb	0.68385	34.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.2	0.1388	µg/L	0.05797	0.1388	ppb	0.05797	41.76%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.0	0.1219	µg/L	0.14156	0.1219	ppb	0.14156	116.14%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.9     -0.0928 µg/L       0.10149     -0.0928 ppb        0.10149 109.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               93.7      0.3963 µg/L       0.29175      0.3963 ppb        0.29175  73.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        23.3      1.5682 µg/L       0.92624      1.5682 ppb        0.92624  59.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        279.2      114.92 µg/L        32.237      114.92 ppb         32.237  28.05%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.2      2.5659 µg/L      11.00833      2.5659 ppb       11.00833 429.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               35.2      0.0470 µg/L       0.02097      0.0470 ppb        0.02097  44.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.5      0.3653 µg/L       0.17604      0.3653 ppb        0.17604  48.20%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       215.6      32.641 µg/L        4.1449      32.641 ppb         4.1449  12.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                6.4      0.0803 µg/L       0.29619      0.0803 ppb        0.29619 369.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.1      0.7332 µg/L       2.25973      0.7332 ppb        2.25973 308.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -16.2     -0.9915 µg/L       0.43745     -0.9915 ppb        0.43745  44.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.9      0.7588 µg/L       3.34932      0.7588 ppb        3.34932 441.38%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.9      0.5126 µg/L       0.81231      0.5126 ppb        0.81231 158.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.7       -1.50 µg/L         3.078       -1.50 ppb          3.078 205.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -35.1     -3.7610 µg/L       3.04595     -3.7610 ppb        3.04595  80.99%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -124.3     -2.0132 µg/L       0.16387     -2.0132 ppb        0.16387   8.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -6.1     -0.4209 µg/L       0.17666     -0.4209 ppb        0.17666  41.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -32.1     -0.0740 µg/L       0.08130     -0.0740 ppb        0.08130 109.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -82.7     -0.0836 µg/L       0.16904     -0.0836 ppb        0.16904 202.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.9      1.1955 µg/L       0.40978      1.1955 ppb        0.40978  34.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                19.9      1.2493 µg/L       7.87729      1.2493 ppb        7.87729 630.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 6.6      0.0392 µg/L       0.24421      0.0392 ppb        0.24421 622.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               48.2      0.2979 µg/L       0.05391      0.2979 ppb        0.05391  18.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 82
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/30/2010 20:08:26
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	152492.6	152492.6	103	%			20:09:00
1	Al 396.153Radial†	25840.7	25113.4	5151.8	µg/L	5151.8	ppb	20:09:00
1	Ca 317.933Radial†	88303.9	84905.8	5108.6	µg/L	5108.6	ppb	20:09:00
1	Fe 238.204 Radial†	78277.2	75743.0	5096.6	µg/L	5096.6	ppb	20:09:00
1	K 766.490 Radial†	14518.5	12761.8	5248.1	µg/L	5248.1	ppb	20:09:00
1	Mg 279.077 IEC†	13252.6	12678.6	5208.9	µg/L	5208.9	ppb	20:09:00
1	Na 589.592 Radial†	69908.7	66564.5	10103	µg/L	10103	ppb	20:09:00
1	Sr 421.552†	227461.7	220728.3	509.15	µg/L	509.15	ppb	20:08:58
1	Sc 361.383	1763831.7	1763831.7	100.50	%			20:09:27
1	Y 371.029	1053819.8	1053819.8	99.039	%			20:09:27
1	Ag 328.068†	129310.9	125222.0	504.02	µg/L	504.02	ppb	20:09:27
1	As 188.979†	1441.0	1451.6	513.78	µg/L	513.78	ppb	20:09:47
1	B 249.677†	34021.5	30622.3	497.52	µg/L	497.52	ppb	20:09:27
1	Ba 233.527†	115806.9	115394.3	502.85	µg/L	502.85	ppb	20:09:27
1	Be 313.107†	1689189.5	1681591.2	504.80	µg/L	504.80	ppb	20:09:27
1	Cd 226.502†	73561.3	73306.2	503.02	µg/L	503.02	ppb	20:09:27
1	Co 228.616†	37458.7	37445.2	506.70	µg/L	506.70	ppb	20:09:27
1	Cr 267.716†	59951.5	59475.4	501.00	µg/L	501.00	ppb	20:09:27
1	Cu 324.752†	122095.5	118700.5	501.75	µg/L	501.75	ppb	20:09:27
1	Mn 257.610†	379514.6	377455.4	504.29	µg/L	504.29	ppb	20:09:27
1	Mo 202.031†	15862.8	15818.8	503.65	µg/L	503.65	ppb	20:09:47
1	Ni 231.604†	40342.2	40219.9	505.87	µg/L	505.87	ppb	20:09:27
1	P 214.914†	10682.2	10624.2	2525.5	µg/L	2525.5	ppb	20:09:47
1	Pb 220.353†	8426.4	8287.7	509.05	µg/L	509.05	ppb	20:09:47
1	S 181.975 Axial†	1326.6	1232.3	1014.4	µg/L	1014.4	ppb	20:09:47
1	Sb 206.836†	3943.5	3845.8	505.45	µg/L	505.45	ppb	20:09:47
1	Se 196.026†	1270.7	1250.8	503	µg/L	503	ppb	20:09:47
1	SiO2†	52343.3	50330.3	5363.0	µg/L	5363.0	ppb	20:09:27
1	Si 251.611†	157315.3	155585.8	2508.3	µg/L	2508.3	ppb	20:09:27
1	Sn 189.927†	7334.1	7300.2	507.10	µg/L	507.10	ppb	20:09:47
1	Ti 334.940†	504695.3	501304.8	501.57	µg/L	501.57	ppb	20:09:27
1	Tl 190.801†	3658.9	3757.8	512.53	µg/L	512.53	ppb	20:09:47
1	U 409.014†	7318.8	7566.2	504.39	µg/L	504.39	ppb	20:09:27
1	V 292.402†	94796.4	94016.1	505.83	µg/L	505.83	ppb	20:09:27
1	Zn 213.857†	82412.9	81479.3	501.37	µg/L	501.37	ppb	20:09:27
2	Sc RADIAL	150694.3	150694.3	102	%			20:09:04
2	Al 396.153Radial†	25546.9	25124.1	5154.0	µg/L	5154.0	ppb	20:09:04
2	Ca 317.933Radial†	87068.1	84715.1	5097.1	µg/L	5097.1	ppb	20:09:04
2	Fe 238.204 Radial†	77031.1	75426.2	5075.3	µg/L	5075.3	ppb	20:09:04
2	K 766.490 Radial†	14222.0	12638.8	5197.5	µg/L	5197.5	ppb	20:09:04
2	Mg 279.077 IEC†	13146.7	12728.1	5229.2	µg/L	5229.2	ppb	20:09:04
2	Na 589.592 Radial†	69279.8	66756.3	10132	µg/L	10132	ppb	20:09:04
2	Sr 421.552†	230045.6	225894.4	521.06	µg/L	521.06	ppb	20:09:02
2	Sc 361.383	1769327.2	1769327.2	100.81	%			20:09:50
2	Y 371.029	1056447.6	1056447.6	99.286	%			20:09:50
2	Ag 328.068†	129737.2	125245.2	504.11	µg/L	504.11	ppb	20:09:50
2	As 188.979†	1452.7	1458.7	516.25	µg/L	516.25	ppb	20:10:10
2	B 249.677†	34069.8	30565.1	496.58	µg/L	496.58	ppb	20:09:50
2	Ba 233.527†	116125.7	115352.6	502.67	µg/L	502.67	ppb	20:09:50
2	Be 313.107†	1695092.2	1682225.8	504.99	µg/L	504.99	ppb	20:09:50
2	Cd 226.502†	73911.3	73426.0	503.85	µg/L	503.85	ppb	20:09:50
2	Co 228.616†	37638.7	37508.0	507.55	µg/L	507.55	ppb	20:09:50
2	Cr 267.716†	60063.7	59401.4	500.38	µg/L	500.38	ppb	20:09:50
2	Cu 324.752†	122333.5	118559.3	501.15	µg/L	501.15	ppb	20:09:50
2	Mn 257.610†	380219.4	376981.6	503.66	µg/L	503.66	ppb	20:09:50
2	Mo 202.031†	15898.5	15805.2	503.21	µg/L	503.21	ppb	20:10:10
2	Ni 231.604†	40395.1	40147.7	504.97	µg/L	504.97	ppb	20:09:50
2	P 214.914†	10676.9	10585.9	2516.4	µg/L	2516.4	ppb	20:10:10
2	Pb 220.353†	8430.6	8265.7	507.72	µg/L	507.72	ppb	20:10:10

2	S 181.975 Axial†	1331.8	1233.3	1015.2 µg/L	1015.2 ppb	20:10:10
2	Sb 206.836†	3938.1	3828.3	503.15 µg/L	503.15 ppb	20:10:10
2	Se 196.026†	1284.8	1260.9	507 µg/L	507 ppb	20:10:10
2	SiO2†	52247.2	50073.3	5335.5 µg/L	5335.5 ppb	20:09:50
2	Si 251.611†	157615.4	155397.4	2505.3 µg/L	2505.3 ppb	20:09:50
2	Sn 189.927†	7360.1	7303.3	507.31 µg/L	507.31 ppb	20:10:10
2	Ti 334.940†	505771.9	500812.9	501.08 µg/L	501.08 ppb	20:09:50
2	Tl 190.801†	3674.1	3761.6	513.04 µg/L	513.04 ppb	20:10:10
2	U 409.014†	7172.0	7398.0	493.88 µg/L	493.88 ppb	20:09:50
2	V 292.402†	95174.9	94098.5	506.26 µg/L	506.26 ppb	20:09:50
2	Zn 213.857†	82692.1	81501.6	501.51 µg/L	501.51 ppb	20:09:50
3	Sc RADIAL	154446.8	154446.8	104 %		20:09:08
3	Al 396.153Radial†	26003.5	24952.3	5118.6 µg/L	5118.6 ppb	20:09:08
3	Ca 317.933Radial†	88716.2	84217.4	5067.2 µg/L	5067.2 ppb	20:09:08
3	Fe 238.204 Radial†	78683.7	75172.0	5058.2 µg/L	5058.2 ppb	20:09:08
3	K 766.490 Radial†	14554.4	12618.0	5189.0 µg/L	5189.0 ppb	20:09:08
3	Mg 279.077 IEC†	13527.8	12779.4	5250.3 µg/L	5250.3 ppb	20:09:08
3	Na 589.592 Radial†	70243.3	66027.3	10021 µg/L	10021 ppb	20:09:08
3	Sr 421.552†	227262.8	217747.9	502.27 µg/L	502.27 ppb	20:09:06
3	Sc 361.383	1761651.7	1761651.7	100.37 %		20:10:13
3	Y 371.029	1051799.2	1051799.2	98.849 %		20:10:13
3	Ag 328.068†	128756.4	124828.8	502.44 µg/L	502.44 ppb	20:10:13
3	As 188.979†	1444.1	1456.4	515.43 µg/L	515.43 ppb	20:10:33
3	B 249.677†	33918.6	30561.7	496.53 µg/L	496.53 ppb	20:10:13
3	Ba 233.527†	115397.7	115129.2	501.70 µg/L	501.70 ppb	20:10:13
3	Be 313.107†	1686215.8	1680708.6	504.54 µg/L	504.54 ppb	20:10:13
3	Cd 226.502†	73410.3	73246.4	502.62 µg/L	502.62 ppb	20:10:13
3	Co 228.616†	37340.8	37373.9	505.74 µg/L	505.74 ppb	20:10:13
3	Cr 267.716†	59568.1	59167.3	498.40 µg/L	498.40 ppb	20:10:13
3	Cu 324.752†	121704.8	118461.7	500.74 µg/L	500.74 ppb	20:10:13
3	Mn 257.610†	378156.9	376570.1	503.11 µg/L	503.11 ppb	20:10:13
3	Mo 202.031†	15839.5	15815.1	503.53 µg/L	503.53 ppb	20:10:33
3	Ni 231.604†	40122.1	40050.3	503.74 µg/L	503.74 ppb	20:10:13
3	P 214.914†	10643.3	10598.6	2519.4 µg/L	2519.4 ppb	20:10:33
3	Pb 220.353†	8391.0	8262.8	507.53 µg/L	507.53 ppb	20:10:33
3	S 181.975 Axial†	1329.0	1236.3	1017.7 µg/L	1017.7 ppb	20:10:33
3	Sb 206.836†	3919.9	3827.2	503.04 µg/L	503.04 ppb	20:10:33
3	Se 196.026†	1267.8	1249.5	502 µg/L	502 ppb	20:10:33
3	SiO2†	52154.9	50207.1	5349.8 µg/L	5349.8 ppb	20:10:13
3	Si 251.611†	156268.4	154736.6	2494.6 µg/L	2494.6 ppb	20:10:13
3	Sn 189.927†	7310.8	7286.0	506.11 µg/L	506.11 ppb	20:10:33
3	Ti 334.940†	502976.1	500213.4	500.48 µg/L	500.48 ppb	20:10:13
3	Tl 190.801†	3651.0	3754.5	512.07 µg/L	512.07 ppb	20:10:33
3	U 409.014†	7246.7	7503.4	500.36 µg/L	500.36 ppb	20:10:13
3	V 292.402†	94373.8	93711.7	504.21 µg/L	504.21 ppb	20:10:13
3	Zn 213.857†	82196.7	81365.4	500.68 µg/L	500.68 ppb	20:10:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764936.9	100.56	%	0.225				0.22%
Sc RADIAL	152544.6	103	%	1.3				1.23%
Y 371.029	1054022.2	99.058	%	0.2191				0.22%
Ag 328.068†	125098.7	503.52	µg/L	0.941	503.52	ppb	0.941	0.19%
QC value within limits for Ag 328.068 Recovery = 100.70%								
Al 396.153Radial†	25063.3	5141.5	µg/L	19.83	5141.5	ppb	19.83	0.39%
QC value within limits for Al 396.153Radial Recovery = 102.83%								
As 188.979†	1455.5	515.15	µg/L	1.257	515.15	ppb	1.257	0.24%
QC value within limits for As 188.979 Recovery = 103.03%								
B 249.677†	30583.0	496.87	µg/L	0.555	496.87	ppb	0.555	0.11%
QC value within limits for B 249.677 Recovery = 99.37%								
Ba 233.527†	115292.0	502.41	µg/L	0.621	502.41	ppb	0.621	0.12%
QC value within limits for Ba 233.527 Recovery = 100.48%								
Be 313.107†	1681508.5	504.78	µg/L	0.228	504.78	ppb	0.228	0.05%
QC value within limits for Be 313.107 Recovery = 100.96%								
Ca 317.933Radial†	84612.7	5090.9	µg/L	21.39	5090.9	ppb	21.39	0.42%
QC value within limits for Ca 317.933Radial Recovery = 101.82%								
Cd 226.502†	73326.2	503.16	µg/L	0.628	503.16	ppb	0.628	0.12%
QC value within limits for Cd 226.502 Recovery = 100.63%								
Co 228.616†	37442.3	506.67	µg/L	0.907	506.67	ppb	0.907	0.18%

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   QC value within limits for Co 228.616  Recovery = 101.33%
Cr 267.716†            59348.0      499.93 µg/L         1.356      499.93 ppb          1.356   0.27%
   QC value within limits for Cr 267.716  Recovery = 99.99%
Cu 324.752†           118573.8      501.21 µg/L         0.511      501.21 ppb          0.511   0.10%
   QC value within limits for Cu 324.752  Recovery = 100.24%
Fe 238.204 Radial†     75447.1      5076.7 µg/L         19.25      5076.7 ppb          19.25   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.53%
K 766.490 Radial†      12672.9      5211.5 µg/L         31.96      5211.5 ppb          31.96   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 104.23%
Mg 279.077 IEC†        12728.7      5229.5 µg/L         20.69      5229.5 ppb          20.69   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.59%
Mn 257.610†           377002.4      503.69 µg/L         0.593      503.69 ppb          0.593   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.74%
Mo 202.031†            15813.0      503.46 µg/L         0.224      503.46 ppb          0.224   0.04%
   QC value within limits for Mo 202.031  Recovery = 100.69%
Na 589.592 Radial†     66449.3       10086 µg/L          57.4       10086 ppb           57.4   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.86%
Ni 231.604†            40139.3      504.86 µg/L         1.070      504.86 ppb          1.070   0.21%
   QC value within limits for Ni 231.604  Recovery = 100.97%
P 214.914†             10602.9      2520.4 µg/L          4.64      2520.4 ppb           4.64   0.18%
   QC value within limits for P 214.914  Recovery = 100.82%
Pb 220.353†             8272.0      508.10 µg/L         0.831      508.10 ppb          0.831   0.16%
   QC value within limits for Pb 220.353  Recovery = 101.62%
S 181.975 Axial†        1234.0      1015.8 µg/L          1.70      1015.8 ppb           1.70   0.17%
   QC value within limits for S 181.975 Axial  Recovery = 101.58%
Sb 206.836†             3833.8      503.88 µg/L         1.359      503.88 ppb          1.359   0.27%
   QC value within limits for Sb 206.836  Recovery = 100.78%
Se 196.026†             1253.7         504 µg/L           2.5         504 ppb            2.5   0.49%
   QC value within limits for Se 196.026  Recovery = 100.81%
SiO2†                  50203.6      5349.4 µg/L         13.75      5349.4 ppb          13.75   0.26%
   QC value within limits for SiO2  Recovery = 100.04%
Si 251.611†           155239.9      2502.7 µg/L          7.21      2502.7 ppb           7.21   0.29%
   QC value within limits for Si 251.611  Recovery = 100.11%
Sn 189.927†             7296.5      506.84 µg/L         0.640      506.84 ppb          0.640   0.13%
   QC value within limits for Sn 189.927  Recovery = 101.37%
Sr 421.552†           221456.9      510.83 µg/L         9.508      510.83 ppb          9.508   1.86%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           500777.0      501.04 µg/L         0.549      501.04 ppb          0.549   0.11%
   QC value within limits for Ti 334.940  Recovery = 100.21%
Tl 190.801†             3758.0      512.55 µg/L         0.485      512.55 ppb          0.485   0.09%
   QC value within limits for Tl 190.801  Recovery = 102.51%
U 409.014†              7489.2      499.54 µg/L         5.302      499.54 ppb          5.302   1.06%
   QC value within limits for U 409.014  Recovery = 99.91%
V 292.402†             93942.1      505.43 µg/L         1.083      505.43 ppb          1.083   0.21%
   QC value within limits for V 292.402  Recovery = 101.09%
Zn 213.857†            81448.7      501.19 µg/L         0.446      501.19 ppb          0.446   0.09%
   QC value within limits for Zn 213.857  Recovery = 100.24%
All analyte(s) passed QC.
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Sequence No.: 83
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/30/2010 20:10:41
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	150834.2	150834.2	102	%			20:11:12
1	Al 396.153Radial†	-37.7	25.9	5.3387	µg/L	5.3387	ppb	20:11:32
1	Ca 317.933Radial†	680.4	-31.1	-1.8708	µg/L	-1.8708	ppb	20:11:32
1	Fe 238.204 Radial†	186.1	41.7	2.8064	µg/L	2.8064	ppb	20:11:32
1	K 766.490 Radial†	1669.8	323.7	133.22	µg/L	133.22	ppb	20:11:12
1	Mg 279.077 IEC†	182.4	10.0	4.0902	µg/L	4.0902	ppb	20:11:32
1	Na 589.592 Radial†	1552.1	314.6	47.652	µg/L	47.652	ppb	20:11:12
1	Sr 421.552†	-113.1	110.8	0.2555	µg/L	0.2555	ppb	20:11:12
1	Sc 361.383	1792841.5	1792841.5	102.15	%			20:12:33
1	Y 371.029	1083226.4	1083226.4	101.80	%			20:12:33
1	Ag 328.068†	3399.7	-119.0	-0.4739	µg/L	-0.4739	ppb	20:12:36
1	As 188.979†	-20.7	-2.6	-0.9071	µg/L	-0.9071	ppb	20:12:56
1	B 249.677†	3315.1	14.9	0.2427	µg/L	0.2427	ppb	20:12:56
1	Ba 233.527†	-147.1	18.1	0.0793	µg/L	0.0793	ppb	20:12:56
1	Be 313.107†	-835.3	-32.2	-0.0117	µg/L	-0.0117	ppb	20:12:36
1	Cd 226.502†	-92.3	19.6	0.1345	µg/L	0.1345	ppb	20:12:56
1	Co 228.616†	-167.6	8.4	0.1131	µg/L	0.1131	ppb	20:12:56
1	Cr 267.716†	177.8	-4.6	-0.0328	µg/L	-0.0328	ppb	20:12:56
1	Cu 324.752†	2855.7	6.6	0.0228	µg/L	0.0228	ppb	20:12:36
1	Mn 257.610†	214.3	34.3	0.0456	µg/L	0.0456	ppb	20:12:56
1	Mo 202.031†	-35.7	-0.2	-0.0069	µg/L	-0.0069	ppb	20:12:56
1	Ni 231.604†	-93.1	-13.2	-0.1666	µg/L	-0.1666	ppb	20:12:56
1	P 214.914†	-2.8	-7.8	-1.8501	µg/L	-1.8501	ppb	20:12:56
1	Pb 220.353†	111.4	12.0	0.7428	µg/L	0.7428	ppb	20:12:56
1	S 181.975 Axial†	95.7	6.0	4.8882	µg/L	4.8882	ppb	20:12:56
1	Sb 206.836†	82.0	2.2	0.2877	µg/L	0.2877	ppb	20:12:56
1	Se 196.026†	4.8	-8.8	-3.55	µg/L	-3.55	ppb	20:12:56
1	SiO2†	1691.2	-97.6	-10.440	µg/L	-10.440	ppb	20:12:56
1	Si 251.611†	980.7	11.4	0.1839	µg/L	0.1839	ppb	20:12:36
1	Sn 189.927†	-0.8	1.8	0.1225	µg/L	0.1225	ppb	20:12:56
1	Ti 334.940†	890.4	-14.0	-0.0116	µg/L	-0.0116	ppb	20:12:36
1	Tl 190.801†	-114.7	4.8	0.6477	µg/L	0.6477	ppb	20:12:56
1	U 409.014†	-399.7	-107.5	-6.7011	µg/L	-6.7011	ppb	20:12:36
1	V 292.402†	435.0	116.0	0.6107	µg/L	0.6107	ppb	20:12:36
1	Zn 213.857†	611.3	73.9	0.4592	µg/L	0.4592	ppb	20:12:56
2	Sc RADIAL	153677.2	153677.2	104	%			20:11:34
2	Al 396.153Radial†	-26.4	37.5	7.6972	µg/L	7.6972	ppb	20:11:54
2	Ca 317.933Radial†	665.8	-57.5	-3.4580	µg/L	-3.4580	ppb	20:11:54
2	Fe 238.204 Radial†	197.3	49.1	3.3036	µg/L	3.3036	ppb	20:11:54
2	K 766.490 Radial†	1528.6	157.6	64.866	µg/L	64.866	ppb	20:11:34
2	Mg 279.077 IEC†	170.0	-5.2	-2.1435	µg/L	-2.1435	ppb	20:11:54
2	Na 589.592 Radial†	1500.7	237.0	35.925	µg/L	35.925	ppb	20:11:34
2	Sr 421.552†	-316.3	-82.6	-0.1906	µg/L	-0.1906	ppb	20:11:34
2	Sc 361.383	1778552.8	1778552.8	101.34	%			20:12:58
2	Y 371.029	1075613.2	1075613.2	101.09	%			20:12:58
2	Ag 328.068†	3582.9	88.5	0.3563	µg/L	0.3563	ppb	20:13:00
2	As 188.979†	-13.8	4.0	1.4098	µg/L	1.4098	ppb	20:13:20
2	B 249.677†	3317.2	43.0	0.7013	µg/L	0.7013	ppb	20:13:20
2	Ba 233.527†	-152.7	11.5	0.0504	µg/L	0.0504	ppb	20:13:20
2	Be 313.107†	-823.3	-26.8	-0.0084	µg/L	-0.0084	ppb	20:13:00
2	Cd 226.502†	-95.3	16.0	0.1093	µg/L	0.1093	ppb	20:13:20
2	Co 228.616†	-165.7	8.9	0.1202	µg/L	0.1202	ppb	20:13:20
2	Cr 267.716†	184.1	3.1	0.0273	µg/L	0.0273	ppb	20:13:20
2	Cu 324.752†	2947.6	119.8	0.5042	µg/L	0.5042	ppb	20:13:00
2	Mn 257.610†	202.4	24.2	0.0324	µg/L	0.0324	ppb	20:13:20
2	Mo 202.031†	-21.1	13.9	0.4437	µg/L	0.4437	ppb	20:13:20
2	Ni 231.604†	-81.5	-2.5	-0.0317	µg/L	-0.0317	ppb	20:13:20
2	P 214.914†	14.2	9.0	2.1486	µg/L	2.1486	ppb	20:13:20
2	Pb 220.353†	99.0	0.8	0.0485	µg/L	0.0485	ppb	20:13:20

2	S 181.975 Axial†	103.3	14.3	11.686 µg/L	11.686 ppb	20:13:20
2	Sb 206.836†	67.8	-11.2	-1.4630 µg/L	-1.4630 ppb	20:13:20
2	Se 196.026†	5.3	-8.4	-3.35 µg/L	-3.35 ppb	20:13:20
2	SiO2†	1707.2	-68.5	-7.3491 µg/L	-7.3491 ppb	20:13:20
2	Si 251.611†	898.0	-62.5	-1.0236 µg/L	-1.0236 ppb	20:13:00
2	Sn 189.927†	10.3	12.7	0.8780 µg/L	0.8780 ppb	20:13:20
2	Ti 334.940†	781.3	-114.6	-0.1143 µg/L	-0.1143 ppb	20:13:00
2	Tl 190.801†	-115.0	3.6	0.4808 µg/L	0.4808 ppb	20:13:20
2	U 409.014†	-305.2	-17.4	-1.0668 µg/L	-1.0668 ppb	20:13:00
2	V 292.402†	403.1	87.9	0.4707 µg/L	0.4707 ppb	20:13:00
2	Zn 213.857†	591.8	59.4	0.3679 µg/L	0.3679 ppb	20:13:20
3	Sc RADIAL	151772.7	151772.7	103 %		20:11:56
3	Al 396.153Radial†	-69.6	-4.9	-1.0161 µg/L	-1.0161 ppb	20:12:16
3	Ca 317.933Radial†	703.6	-12.7	-0.7618 µg/L	-0.7618 ppb	20:12:16
3	Fe 238.204 Radial†	178.1	32.8	2.2047 µg/L	2.2047 ppb	20:12:16
3	K 766.490 Radial†	1685.6	329.0	135.39 µg/L	135.39 ppb	20:11:56
3	Mg 279.077 IEC†	167.7	-5.5	-2.2359 µg/L	-2.2359 ppb	20:12:16
3	Na 589.592 Radial†	1498.7	253.1	38.314 µg/L	38.314 ppb	20:11:56
3	Sr 421.552†	-135.8	89.4	0.2062 µg/L	0.2062 ppb	20:11:56
3	Sc 361.383	1801778.5	1801778.5	102.66 %		20:13:22
3	Y 371.029	1088624.3	1088624.3	102.31 %		20:13:22
3	Ag 328.068†	3610.3	69.6	0.2878 µg/L	0.2878 ppb	20:13:24
3	As 188.979†	-16.0	2.1	0.7277 µg/L	0.7277 ppb	20:13:44
3	B 249.677†	3275.6	-39.6	-0.6459 µg/L	-0.6459 ppb	20:13:44
3	Ba 233.527†	-146.1	19.8	0.0863 µg/L	0.0863 ppb	20:13:44
3	Be 313.107†	-846.4	-38.9	-0.0087 µg/L	-0.0087 ppb	20:13:24
3	Cd 226.502†	-98.2	14.3	0.0981 µg/L	0.0981 ppb	20:13:44
3	Co 228.616†	-184.4	-7.2	-0.0973 µg/L	-0.0973 ppb	20:13:44
3	Cr 267.716†	152.2	-30.3	-0.2630 µg/L	-0.2630 ppb	20:13:44
3	Cu 324.752†	2999.8	133.1	0.5692 µg/L	0.5692 ppb	20:13:24
3	Mn 257.610†	223.9	42.6	0.0570 µg/L	0.0570 ppb	20:13:44
3	Mo 202.031†	-31.6	4.0	0.1278 µg/L	0.1278 ppb	20:13:44
3	Ni 231.604†	-99.2	-18.7	-0.2356 µg/L	-0.2356 ppb	20:13:44
3	P 214.914†	29.6	23.8	5.6651 µg/L	5.6651 ppb	20:13:44
3	Pb 220.353†	85.6	-13.6	-0.8375 µg/L	-0.8375 ppb	20:13:44
3	S 181.975 Axial†	86.4	-3.5	-2.8659 µg/L	-2.8659 ppb	20:13:44
3	Sb 206.836†	80.6	0.4	0.0622 µg/L	0.0622 ppb	20:13:44
3	Se 196.026†	11.7	-2.2	-0.870 µg/L	-0.870 ppb	20:13:44
3	SiO2†	1719.7	-78.1	-8.3558 µg/L	-8.3558 ppb	20:13:44
3	Si 251.611†	813.1	-156.6	-2.5369 µg/L	-2.5369 ppb	20:13:24
3	Sn 189.927†	-2.0	0.6	0.0443 µg/L	0.0443 ppb	20:13:44
3	Ti 334.940†	891.8	-16.9	-0.0207 µg/L	-0.0207 ppb	20:13:24
3	Tl 190.801†	-117.3	2.8	0.3762 µg/L	0.3762 ppb	20:13:44
3	U 409.014†	-132.1	155.0	9.7075 µg/L	9.7075 ppb	20:13:24
3	V 292.402†	305.2	-12.5	-0.0600 µg/L	-0.0600 ppb	20:13:24
3	Zn 213.857†	604.9	64.7	0.4022 µg/L	0.4022 ppb	20:13:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1791057.6	102.05	%	0.668				0.65%
Sc RADIAL	152094.7	103	%	1.0				0.95%
Y 371.029	1082488.0	101.73	%	0.614				0.60%
Ag 328.068†	13.0	0.0567	µg/L	0.46081	0.0567	ppb	0.46081	812.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.5	4.0066	µg/L	4.50680	4.0066	ppb	4.50680	112.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.4102	µg/L	1.19068	0.4102	ppb	1.19068	290.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.1	0.0994	µg/L	0.68492	0.0994	ppb	0.68492	689.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.5	0.0720	µg/L	0.01903	0.0720	ppb	0.01903	26.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-32.6	-0.0096	µg/L	0.00182	-0.0096	ppb	0.00182	18.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-33.7	-2.0302	µg/L	1.35514	-2.0302	ppb	1.35514	66.75%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.7	0.1140	µg/L	0.01867	0.1140	ppb	0.01867	16.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.4	0.0453	µg/L	0.12354	0.0453	ppb	0.12354	272.54%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.6     -0.0895 µg/L       0.15323     -0.0895 ppb        0.15323 171.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               86.5      0.3654 µg/L       0.29851      0.3654 ppb        0.29851  81.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        41.2      2.7716 µg/L       0.55027      2.7716 ppb        0.55027  19.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        270.1      111.16 µg/L        40.106      111.16 ppb         40.106  36.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.2     -0.0964 µg/L       3.62596     -0.0964 ppb        3.62596 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               33.7      0.0450 µg/L       0.01232      0.0450 ppb        0.01232  27.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.9      0.1882 µg/L       0.23131      0.1882 ppb        0.23131 122.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       268.2      40.630 µg/L        6.1977      40.630 ppb         6.1977  15.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.5     -0.1446 µg/L       0.10372     -0.1446 ppb        0.10372  71.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 8.4      1.9879 µg/L       3.76019      1.9879 ppb        3.76019 189.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -0.3     -0.0154 µg/L       0.79211     -0.0154 ppb        0.79211 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.6      4.5696 µg/L       7.28135      4.5696 ppb        7.28135 159.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.9     -0.3710 µg/L       0.95237     -0.3710 ppb        0.95237 256.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.5       -2.59 µg/L         1.491       -2.59 ppb          1.491  57.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -81.4     -8.7149 µg/L       1.57623     -8.7149 ppb        1.57623  18.09%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -69.2     -1.1255 µg/L       1.36327     -1.1255 ppb        1.36327 121.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.0      0.3483 µg/L       0.46045      0.3483 ppb        0.46045 132.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               39.2      0.0904 µg/L       0.24455      0.0904 ppb        0.24455 270.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -48.5     -0.0488 µg/L       0.05684     -0.0488 ppb        0.05684 116.37%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.7      0.5015 µg/L       0.13694      0.5015 ppb        0.13694  27.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                10.0      0.6465 µg/L       8.33737      0.6465 ppb        8.33737 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                63.8      0.3404 µg/L       0.35383      0.3404 ppb        0.35383 103.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               66.0      0.4098 µg/L       0.04613      0.4098 ppb        0.04613  11.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 91 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/30/2010 20:27:24**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **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	152409.0	152409.0	103	%			20:27:59
1	Al 396.153Radial†	25923.7	25207.7	5171.4	µg/L	5171.4	ppb	20:27:59
1	Ca 317.933Radial†	88727.2	85363.4	5136.1	µg/L	5136.1	ppb	20:27:59
1	Fe 238.204 Radial†	78597.1	76094.9	5120.3	µg/L	5120.3	ppb	20:27:59
1	K 766.490 Radial†	14275.3	12533.6	5154.1	µg/L	5154.1	ppb	20:27:59
1	Mg 279.077 IEC†	13379.2	12808.5	5262.1	µg/L	5262.1	ppb	20:27:59
1	Na 589.592 Radial†	70191.2	66875.6	10150	µg/L	10150	ppb	20:27:59
1	Sr 421.552†	230865.9	224151.2	517.04	µg/L	517.04	ppb	20:27:57
1	Sc 361.383	1792987.4	1792987.4	102.16	%			20:28:12
1	Y 371.029	1069539.9	1069539.9	100.52	%			20:28:12
1	Ag 328.068†	131663.1	125432.2	504.87	µg/L	504.87	ppb	20:28:12
1	As 188.979†	1456.2	1443.1	510.82	µg/L	510.82	ppb	20:28:32
1	B 249.677†	34668.8	30705.4	498.86	µg/L	498.86	ppb	20:28:12
1	Ba 233.527†	117870.6	115540.5	503.49	µg/L	503.49	ppb	20:28:12
1	Be 313.107†	1726095.8	1690385.7	507.44	µg/L	507.44	ppb	20:28:12
1	Cd 226.502†	75327.0	73844.4	506.72	µg/L	506.72	ppb	20:28:12
1	Co 228.616†	38190.3	37555.2	508.19	µg/L	508.19	ppb	20:28:12
1	Cr 267.716†	60948.5	59481.2	501.04	µg/L	501.04	ppb	20:28:12
1	Cu 324.752†	124054.5	118642.6	501.52	µg/L	501.52	ppb	20:28:12
1	Mn 257.610†	386800.7	378446.8	505.62	µg/L	505.62	ppb	20:28:12
1	Mo 202.031†	16000.7	15697.1	499.78	µg/L	499.78	ppb	20:28:32
1	Ni 231.604†	41022.1	40232.6	506.03	µg/L	506.03	ppb	20:28:12
1	P 214.914†	10782.0	10549.1	2507.6	µg/L	2507.6	ppb	20:28:32
1	Pb 220.353†	8479.4	8203.1	503.87	µg/L	503.87	ppb	20:28:32
1	S 181.975 Axial†	1343.9	1227.8	1010.7	µg/L	1010.7	ppb	20:28:32
1	Sb 206.836†	3982.9	3820.6	502.08	µg/L	502.08	ppb	20:28:32
1	Se 196.026†	1294.3	1253.4	504	µg/L	504	ppb	20:28:32
1	SiO2†	53179.9	50302.3	5360.1	µg/L	5360.1	ppb	20:28:12
1	Si 251.611†	160427.5	156086.9	2516.5	µg/L	2516.5	ppb	20:28:12
1	Sn 189.927†	7415.5	7261.3	504.40	µg/L	504.40	ppb	20:28:32
1	Ti 334.940†	514116.3	502360.5	502.62	µg/L	502.62	ppb	20:28:12
1	Tl 190.801†	3700.0	3738.9	510.00	µg/L	510.00	ppb	20:28:32
1	U 409.014†	7548.5	7672.7	511.09	µg/L	511.09	ppb	20:28:12
1	V 292.402†	96442.3	94093.3	506.20	µg/L	506.20	ppb	20:28:12
1	Zn 213.857†	84152.3	81848.5	503.65	µg/L	503.65	ppb	20:28:12
2	Sc RADIAL	151944.8	151944.8	103	%			20:28:03
2	Al 396.153Radial†	25588.5	24958.4	5119.9	µg/L	5119.9	ppb	20:28:03
2	Ca 317.933Radial†	87185.3	84126.1	5061.7	µg/L	5061.7	ppb	20:28:03
2	Fe 238.204 Radial†	77326.2	75091.3	5052.8	µg/L	5052.8	ppb	20:28:03
2	K 766.490 Radial†	14117.2	12422.1	5108.3	µg/L	5108.3	ppb	20:28:03
2	Mg 279.077 IEC†	13198.4	12672.2	5206.3	µg/L	5206.3	ppb	20:28:03
2	Na 589.592 Radial†	69297.5	66214.1	10050	µg/L	10050	ppb	20:28:03
2	Sr 421.552†	230978.7	224945.0	518.87	µg/L	518.87	ppb	20:28:01
2	Sc 361.383	1781700.2	1781700.2	101.52	%			20:28:35
2	Y 371.029	1063594.9	1063594.9	99.958	%			20:28:35
2	Ag 328.068†	130576.0	125177.8	503.82	µg/L	503.82	ppb	20:28:35
2	As 188.979†	1472.7	1468.3	519.60	µg/L	519.60	ppb	20:28:55
2	B 249.677†	34550.1	30803.5	500.47	µg/L	500.47	ppb	20:28:35
2	Ba 233.527†	117034.7	115448.1	503.09	µg/L	503.09	ppb	20:28:35
2	Be 313.107†	1710419.0	1685646.8	506.02	µg/L	506.02	ppb	20:28:35
2	Cd 226.502†	74722.2	73715.7	505.84	µg/L	505.84	ppb	20:28:35
2	Co 228.616†	37910.6	37516.6	507.67	µg/L	507.67	ppb	20:28:35
2	Cr 267.716†	60295.0	59215.5	498.82	µg/L	498.82	ppb	20:28:35
2	Cu 324.752†	122923.6	118297.9	500.04	µg/L	500.04	ppb	20:28:35
2	Mn 257.610†	383459.0	377553.7	504.42	µg/L	504.42	ppb	20:28:35
2	Mo 202.031†	15959.9	15756.2	501.65	µg/L	501.65	ppb	20:28:55
2	Ni 231.604†	40708.2	40177.9	505.35	µg/L	505.35	ppb	20:28:35
2	P 214.914†	10784.0	10617.9	2524.0	µg/L	2524.0	ppb	20:28:55
2	Pb 220.353†	8479.6	8255.9	507.11	µg/L	507.11	ppb	20:28:55

2	S 181.975 Axial†	1351.1	1243.2	1023.3 µg/L	1023.3 ppb	20:28:55
2	Sb 206.836†	3968.1	3830.7	503.47 µg/L	503.47 ppb	20:28:55
2	Se 196.026†	1295.5	1262.5	508 µg/L	508 ppb	20:28:55
2	SiO2†	52749.8	50208.5	5350.0 µg/L	5350.0 ppb	20:28:35
2	Si 251.611†	159079.4	155753.7	2511.0 µg/L	2511.0 ppb	20:28:35
2	Sn 189.927†	7397.8	7289.8	506.38 µg/L	506.38 ppb	20:28:55
2	Ti 334.940†	509336.8	500840.5	501.11 µg/L	501.11 ppb	20:28:35
2	Tl 190.801†	3703.3	3765.0	513.49 µg/L	513.49 ppb	20:28:55
2	U 409.014†	7192.9	7369.1	492.02 µg/L	492.02 ppb	20:28:35
2	V 292.402†	95619.3	93880.7	505.08 µg/L	505.08 ppb	20:28:35
2	Zn 213.857†	83504.1	81731.8	502.94 µg/L	502.94 ppb	20:28:35
3	Sc RADIAL	152324.9	152324.9	103 %		20:28:07
3	Al 396.153Radial†	25855.8	25155.7	5160.1 µg/L	5160.1 ppb	20:28:07
3	Ca 317.933Radial†	88015.5	84720.2	5097.4 µg/L	5097.4 ppb	20:28:07
3	Fe 238.204 Radial†	77711.0	75277.1	5065.3 µg/L	5065.3 ppb	20:28:07
3	K 766.490 Radial†	14386.2	12648.9	5201.6 µg/L	5201.6 ppb	20:28:07
3	Mg 279.077 IEC†	13147.5	12590.8	5173.1 µg/L	5173.1 ppb	20:28:07
3	Na 589.592 Radial†	69793.3	66527.1	10097 µg/L	10097 ppb	20:28:07
3	Sr 421.552†	228255.6	221741.4	511.48 µg/L	511.48 ppb	20:28:05
3	Sc 361.383	1779028.7	1779028.7	101.36 %		20:28:58
3	Y 371.029	1061186.3	1061186.3	99.731 %		20:28:58
3	Ag 328.068†	130722.7	125515.7	505.19 µg/L	505.19 ppb	20:28:58
3	As 188.979†	1495.3	1492.9	528.20 µg/L	528.20 ppb	20:29:18
3	B 249.677†	34531.2	30836.0	501.00 µg/L	501.00 ppb	20:28:58
3	Ba 233.527†	116783.4	115373.3	502.77 µg/L	502.77 ppb	20:28:58
3	Be 313.107†	1708362.5	1686148.1	506.17 µg/L	506.17 ppb	20:28:58
3	Cd 226.502†	74382.0	73490.6	504.29 µg/L	504.29 ppb	20:28:58
3	Co 228.616†	37838.6	37501.7	507.47 µg/L	507.47 ppb	20:28:58
3	Cr 267.716†	60213.5	59224.3	498.89 µg/L	498.89 ppb	20:28:58
3	Cu 324.752†	122777.4	118335.4	500.20 µg/L	500.20 ppb	20:28:58
3	Mn 257.610†	382989.2	377657.4	504.56 µg/L	504.56 ppb	20:28:58
3	Mo 202.031†	16246.6	16062.6	511.40 µg/L	511.40 ppb	20:29:18
3	Ni 231.604†	40722.7	40252.4	506.28 µg/L	506.28 ppb	20:28:58
3	P 214.914†	11006.7	10853.5	2580.2 µg/L	2580.2 ppb	20:29:18
3	Pb 220.353†	8678.1	8464.3	519.90 µg/L	519.90 ppb	20:29:18
3	S 181.975 Axial†	1365.6	1259.5	1036.8 µg/L	1036.8 ppb	20:29:18
3	Sb 206.836†	4043.5	3911.0	514.15 µg/L	514.15 ppb	20:29:18
3	Se 196.026†	1324.8	1293.4	520 µg/L	520 ppb	20:29:18
3	SiO2†	52900.5	50435.2	5373.8 µg/L	5373.8 ppb	20:28:58
3	Si 251.611†	159001.3	155911.9	2513.4 µg/L	2513.4 ppb	20:28:58
3	Sn 189.927†	7563.2	7463.9	518.43 µg/L	518.43 ppb	20:29:18
3	Ti 334.940†	508912.0	501174.9	501.45 µg/L	501.45 ppb	20:28:58
3	Tl 190.801†	3766.6	3832.9	522.64 µg/L	522.64 ppb	20:29:18
3	U 409.014†	7261.8	7447.8	497.01 µg/L	497.01 ppb	20:28:58
3	V 292.402†	95717.8	94119.3	506.45 µg/L	506.45 ppb	20:28:58
3	Zn 213.857†	83386.4	81739.2	502.98 µg/L	502.98 ppb	20:28:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1784572.1	101.68	%	0.422				0.42%
Sc RADIAL	152226.2	103	%	0.2				0.16%
Y 371.029	1064773.7	100.07	%	0.404				0.40%
Ag 328.068†	125375.2	504.63	µg/L	0.713	504.63	ppb	0.713	0.14%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 396.153Radial†	25107.3	5150.5	µg/L	27.05	5150.5	ppb	27.05	0.53%
QC value within limits for Al 396.153Radial Recovery = 103.01%								
As 188.979†	1468.1	519.54	µg/L	8.694	519.54	ppb	8.694	1.67%
QC value within limits for As 188.979 Recovery = 103.91%								
B 249.677†	30781.6	500.11	µg/L	1.110	500.11	ppb	1.110	0.22%
QC value within limits for B 249.677 Recovery = 100.02%								
Ba 233.527†	115454.0	503.11	µg/L	0.363	503.11	ppb	0.363	0.07%
QC value within limits for Ba 233.527 Recovery = 100.62%								
Be 313.107†	1687393.5	506.54	µg/L	0.784	506.54	ppb	0.784	0.15%
QC value within limits for Be 313.107 Recovery = 101.31%								
Ca 317.933Radial†	84736.6	5098.4	µg/L	37.23	5098.4	ppb	37.23	0.73%
QC value within limits for Ca 317.933Radial Recovery = 101.97%								
Cd 226.502†	73683.6	505.62	µg/L	1.227	505.62	ppb	1.227	0.24%
QC value within limits for Cd 226.502 Recovery = 101.12%								
Co 228.616†	37524.5	507.78	µg/L	0.373	507.78	ppb	0.373	0.07%

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   QC value within limits for Co 228.616  Recovery = 101.56%
Cr 267.716†            59307.0      499.58 µg/L         1.265      499.58 ppb          1.265   0.25%
   QC value within limits for Cr 267.716  Recovery = 99.92%
Cu 324.752†           118425.3      500.59 µg/L         0.811      500.59 ppb          0.811   0.16%
   QC value within limits for Cu 324.752  Recovery = 100.12%
Fe 238.204 Radial†     75487.8      5079.5 µg/L         35.93      5079.5 ppb          35.93   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.59%
K 766.490 Radial†      12534.9      5154.7 µg/L         46.66      5154.7 ppb          46.66   0.91%
   QC value within limits for K 766.490 Radial  Recovery = 103.09%
Mg 279.077 IEC†        12690.5      5213.8 µg/L         44.96      5213.8 ppb          44.96   0.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.28%
Mn 257.610†           377886.0      504.87 µg/L         0.651      504.87 ppb          0.651   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.97%
Mo 202.031†            15838.6      504.28 µg/L         6.239      504.28 ppb          6.239   1.24%
   QC value within limits for Mo 202.031  Recovery = 100.86%
Na 589.592 Radial†     66538.9       10099 µg/L          50.2       10099 ppb           50.2   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 100.99%
Ni 231.604†            40220.9      505.89 µg/L         0.486      505.89 ppb          0.486   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.18%
P 214.914†             10673.5      2537.3 µg/L         38.11      2537.3 ppb          38.11   1.50%
   QC value within limits for P 214.914  Recovery = 101.49%
Pb 220.353†             8307.8      510.29 µg/L         8.474      510.29 ppb          8.474   1.66%
   QC value within limits for Pb 220.353  Recovery = 102.06%
S 181.975 Axial†        1243.5      1023.6 µg/L         13.05      1023.6 ppb          13.05   1.27%
   QC value within limits for S 181.975 Axial  Recovery = 102.36%
Sb 206.836†             3854.1      506.57 µg/L         6.607      506.57 ppb          6.607   1.30%
   QC value within limits for Sb 206.836  Recovery = 101.31%
Se 196.026†             1269.8         510 µg/L           8.4         510 ppb            8.4   1.64%
   QC value within limits for Se 196.026  Recovery = 102.10%
SiO2†                  50315.3      5361.3 µg/L         11.95      5361.3 ppb          11.95   0.22%
   QC value within limits for SiO2  Recovery = 100.26%
Si 251.611†           155917.5      2513.6 µg/L          2.72      2513.6 ppb           2.72   0.11%
   QC value within limits for Si 251.611  Recovery = 100.55%
Sn 189.927†             7338.3      509.74 µg/L         7.594      509.74 ppb          7.594   1.49%
   QC value within limits for Sn 189.927  Recovery = 101.95%
Sr 421.552†           223612.5      515.80 µg/L         3.849      515.80 ppb          3.849   0.75%
   QC value within limits for Sr 421.552  Recovery = 103.16%
Ti 334.940†           501458.6      501.73 µg/L         0.794      501.73 ppb          0.794   0.16%
   QC value within limits for Ti 334.940  Recovery = 100.35%
Tl 190.801†             3778.9      515.38 µg/L         6.524      515.38 ppb          6.524   1.27%
   QC value within limits for Tl 190.801  Recovery = 103.08%
U 409.014†              7496.5      500.04 µg/L         9.889      500.04 ppb          9.889   1.98%
   QC value within limits for U 409.014  Recovery = 100.01%
V 292.402†             94031.1      505.91 µg/L         0.730      505.91 ppb          0.730   0.14%
   QC value within limits for V 292.402  Recovery = 101.18%
Zn 213.857†            81773.2      503.19 µg/L         0.400      503.19 ppb          0.400   0.08%
   QC value within limits for Zn 213.857  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 92 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/30/2010 20:29:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	156281.3	156281.3	106	%			20:29:58
1	Al 396.153Radial†	-57.7	8.3	1.6560	µg/L	1.6560	ppb	20:30:18
1	Ca 317.933Radial†	686.6	-48.5	-2.9187	µg/L	-2.9187	ppb	20:30:18
1	Fe 238.204 Radial†	182.2	31.7	2.1315	µg/L	2.1315	ppb	20:30:18
1	K 766.490 Radial†	1645.2	243.5	100.19	µg/L	100.19	ppb	20:29:58
1	Mg 279.077 IEC†	178.2	-0.2	-0.0569	µg/L	-0.0569	ppb	20:30:18
1	Na 589.592 Radial†	1470.9	184.7	27.961	µg/L	27.961	ppb	20:29:58
1	Sr 421.552†	-149.4	80.4	0.1854	µg/L	0.1854	ppb	20:29:58
1	Sc 361.383	1805100.9	1805100.9	102.85	%			20:31:05
1	Y 371.029	1089064.2	1089064.2	102.35	%			20:31:05
1	Ag 328.068†	3276.4	-261.5	-1.0418	µg/L	-1.0418	ppb	20:31:08
1	As 188.979†	-15.2	2.9	1.0095	µg/L	1.0095	ppb	20:31:28
1	B 249.677†	3289.2	-32.3	-0.5268	µg/L	-0.5268	ppb	20:31:28
1	Ba 233.527†	-154.2	12.3	0.0538	µg/L	0.0538	ppb	20:31:28
1	Be 313.107†	-778.8	28.4	0.0075	µg/L	0.0075	ppb	20:31:08
1	Cd 226.502†	-106.5	6.4	0.0440	µg/L	0.0440	ppb	20:31:28
1	Co 228.616†	-186.4	-8.8	-0.1189	µg/L	-0.1189	ppb	20:31:28
1	Cr 267.716†	176.3	-7.1	-0.0573	µg/L	-0.0573	ppb	20:31:28
1	Cu 324.752†	2912.1	42.5	0.1766	µg/L	0.1766	ppb	20:31:08
1	Mn 257.610†	254.1	71.4	0.0955	µg/L	0.0955	ppb	20:31:28
1	Mo 202.031†	-4.8	30.1	0.9572	µg/L	0.9572	ppb	20:31:28
1	Ni 231.604†	-67.4	12.3	0.1551	µg/L	0.1551	ppb	20:31:28
1	P 214.914†	-4.7	-9.6	-2.2950	µg/L	-2.2950	ppb	20:31:28
1	Pb 220.353†	107.2	7.3	0.4495	µg/L	0.4495	ppb	20:31:28
1	S 181.975 Axial†	106.6	16.0	13.105	µg/L	13.105	ppb	20:31:28
1	Sb 206.836†	85.7	5.2	0.7026	µg/L	0.7026	ppb	20:31:28
1	Se 196.026†	10.2	-3.7	-1.46	µg/L	-1.46	ppb	20:31:28
1	SiO2†	1732.1	-69.1	-7.4296	µg/L	-7.4296	ppb	20:31:28
1	Si 251.611†	1128.0	148.1	2.3779	µg/L	2.3779	ppb	20:31:08
1	Sn 189.927†	10.4	12.7	0.8784	µg/L	0.8784	ppb	20:31:28
1	Ti 334.940†	1019.3	105.5	0.1070	µg/L	0.1070	ppb	20:31:08
1	Tl 190.801†	-101.3	18.6	2.5044	µg/L	2.5044	ppb	20:31:28
1	U 409.014†	-344.6	-51.3	-3.2065	µg/L	-3.2065	ppb	20:31:08
1	V 292.402†	342.4	23.1	0.1298	µg/L	0.1298	ppb	20:31:08
1	Zn 213.857†	603.3	62.0	0.3835	µg/L	0.3835	ppb	20:31:28
2	Sc RADIAL	156509.3	156509.3	106	%			20:30:20
2	Al 396.153Radial†	-84.0	-16.5	-3.4369	µg/L	-3.4369	ppb	20:30:40
2	Ca 317.933Radial†	674.0	-61.4	-3.6926	µg/L	-3.6926	ppb	20:30:40
2	Fe 238.204 Radial†	164.4	14.5	0.9786	µg/L	0.9786	ppb	20:30:40
2	K 766.490 Radial†	1677.2	271.3	111.67	µg/L	111.67	ppb	20:30:20
2	Mg 279.077 IEC†	176.3	-2.3	-0.9200	µg/L	-0.9200	ppb	20:30:40
2	Na 589.592 Radial†	1451.1	164.0	24.806	µg/L	24.806	ppb	20:30:20
2	Sr 421.552†	-179.7	51.9	0.1197	µg/L	0.1197	ppb	20:30:20
2	Sc 361.383	1832032.1	1832032.1	104.38	%			20:31:30
2	Y 371.029	1105356.7	1105356.7	103.88	%			20:31:30
2	Ag 328.068†	3652.4	51.9	0.1969	µg/L	0.1969	ppb	20:31:32
2	As 188.979†	-13.3	4.9	1.7214	µg/L	1.7214	ppb	20:31:52
2	B 249.677†	3316.8	-52.9	-0.8619	µg/L	-0.8619	ppb	20:31:52
2	Ba 233.527†	-126.9	40.6	0.1771	µg/L	0.1771	ppb	20:31:52
2	Be 313.107†	-873.6	-51.3	-0.0176	µg/L	-0.0176	ppb	20:31:32
2	Cd 226.502†	-100.5	13.7	0.0942	µg/L	0.0942	ppb	20:31:52
2	Co 228.616†	-182.8	-2.7	-0.0363	µg/L	-0.0363	ppb	20:31:52
2	Cr 267.716†	174.6	-11.3	-0.0894	µg/L	-0.0894	ppb	20:31:52
2	Cu 324.752†	2740.9	-163.1	-0.6935	µg/L	-0.6935	ppb	20:31:32
2	Mn 257.610†	231.6	46.2	0.0618	µg/L	0.0618	ppb	20:31:52
2	Mo 202.031†	-11.0	24.2	0.7699	µg/L	0.7699	ppb	20:31:52
2	Ni 231.604†	-62.0	18.5	0.2321	µg/L	0.2321	ppb	20:31:52
2	P 214.914†	3.3	-1.8	-0.4309	µg/L	-0.4309	ppb	20:31:52
2	Pb 220.353†	68.1	-31.7	-1.9328	µg/L	-1.9328	ppb	20:31:52

2	S 181.975 Axial†	96.7	4.9	4.0468 µg/L	4.0468 ppb	20:31:52
2	Sb 206.836†	71.7	-9.4	-1.2149 µg/L	-1.2149 ppb	20:31:52
2	Se 196.026†	13.1	-1.0	-0.413 µg/L	-0.413 ppb	20:31:52
2	SiO2†	1768.1	-59.3	-6.3678 µg/L	-6.3678 ppb	20:31:52
2	Si 251.611†	874.9	-110.5	-1.7986 µg/L	-1.7986 ppb	20:31:32
2	Sn 189.927†	-4.3	-1.5	-0.1063 µg/L	-0.1063 ppb	20:31:52
2	Ti 334.940†	765.1	-152.6	-0.1499 µg/L	-0.1499 ppb	20:31:32
2	Tl 190.801†	-121.0	1.1	0.1488 µg/L	0.1488 ppb	20:31:52
2	U 409.014†	-419.9	-118.5	-7.4214 µg/L	-7.4214 ppb	20:31:32
2	V 292.402†	317.8	-5.3	-0.0258 µg/L	-0.0258 ppb	20:31:32
2	Zn 213.857†	609.7	59.6	0.3683 µg/L	0.3683 ppb	20:31:52
3	Sc RADIAL	153850.3	153850.3	104 %		20:30:42
3	Al 396.153Radial†	-27.3	36.7	7.5683 µg/L	7.5683 ppb	20:31:02
3	Ca 317.933Radial†	702.8	-22.7	-1.3665 µg/L	-1.3665 ppb	20:31:02
3	Fe 238.204 Radial†	188.0	39.9	2.6870 µg/L	2.6870 ppb	20:31:02
3	K 766.490 Radial†	1580.3	205.7	84.643 µg/L	84.643 ppb	20:30:42
3	Mg 279.077 IEC†	188.3	12.2	4.9762 µg/L	4.9762 ppb	20:31:02
3	Na 589.592 Radial†	1383.6	122.8	18.577 µg/L	18.577 ppb	20:30:42
3	Sr 421.552†	-133.7	93.2	0.2150 µg/L	0.2150 ppb	20:30:42
3	Sc 361.383	1826208.7	1826208.7	104.05 %		20:31:54
3	Y 371.029	1100770.0	1100770.0	103.45 %		20:31:54
3	Ag 328.068†	3330.5	-246.4	-0.9663 µg/L	-0.9663 ppb	20:31:56
3	As 188.979†	-15.0	3.3	1.1333 µg/L	1.1333 ppb	20:32:16
3	B 249.677†	3392.4	29.9	0.4882 µg/L	0.4882 ppb	20:32:16
3	Ba 233.527†	-164.4	4.1	0.0184 µg/L	0.0184 ppb	20:32:16
3	Be 313.107†	-860.1	-41.0	-0.0113 µg/L	-0.0113 ppb	20:31:56
3	Cd 226.502†	-111.1	3.2	0.0218 µg/L	0.0218 ppb	20:32:16
3	Co 228.616†	-192.3	-12.4	-0.1672 µg/L	-0.1672 ppb	20:32:16
3	Cr 267.716†	172.7	-12.6	-0.1081 µg/L	-0.1081 ppb	20:32:16
3	Cu 324.752†	2904.7	2.6	0.0142 µg/L	0.0142 ppb	20:31:56
3	Mn 257.610†	241.0	56.0	0.0747 µg/L	0.0747 ppb	20:32:16
3	Mo 202.031†	-44.3	-7.8	-0.2467 µg/L	-0.2467 ppb	20:32:16
3	Ni 231.604†	-84.2	-3.0	-0.0381 µg/L	-0.0381 ppb	20:32:16
3	P 214.914†	15.0	9.4	2.2488 µg/L	2.2488 ppb	20:32:16
3	Pb 220.353†	80.6	-19.5	-1.1963 µg/L	-1.1963 ppb	20:32:16
3	S 181.975 Axial†	94.5	3.1	2.5499 µg/L	2.5499 ppb	20:32:16
3	Sb 206.836†	95.7	13.9	1.8159 µg/L	1.8159 ppb	20:32:16
3	Se 196.026†	9.2	-4.7	-1.88 µg/L	-1.88 ppb	20:32:16
3	SiO2†	1770.6	-51.5	-5.5066 µg/L	-5.5066 ppb	20:32:16
3	Si 251.611†	865.4	-117.0	-1.8898 µg/L	-1.8898 ppb	20:31:56
3	Sn 189.927†	-3.1	-0.5	-0.0318 µg/L	-0.0318 ppb	20:32:16
3	Ti 334.940†	1025.6	100.0	0.0984 µg/L	0.0984 ppb	20:31:56
3	Tl 190.801†	-120.1	1.6	0.2289 µg/L	0.2289 ppb	20:32:16
3	U 409.014†	-239.3	53.8	3.4109 µg/L	3.4109 ppb	20:31:56
3	V 292.402†	467.6	139.6	0.7399 µg/L	0.7399 ppb	20:31:56
3	Zn 213.857†	593.8	46.1	0.2859 µg/L	0.2859 ppb	20:32:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1821113.9	103.76	%	0.807				0.78%
Sc RADIAL	155547.0	105	%	1.0				0.95%
Y 371.029	1098397.0	103.23	%	0.790				0.76%
Ag 328.068†	-152.0	-0.6037	µg/L	0.69441	-0.6037	ppb	0.69441	115.02%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.5	1.9291	µg/L	5.50766	1.9291	ppb	5.50766	285.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2881	µg/L	0.38036	1.2881	ppb	0.38036	29.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.4	-0.3002	µg/L	0.70300	-0.3002	ppb	0.70300	234.18%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.0	0.0831	µg/L	0.08332	0.0831	ppb	0.08332	100.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-21.3	-0.0071	µg/L	0.01309	-0.0071	ppb	0.01309	183.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-44.2	-2.6593	µg/L	1.18459	-2.6593	ppb	1.18459	44.55%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0533	µg/L	0.03706	0.0533	ppb	0.03706	69.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-7.9	-0.1075	µg/L	0.06620	-0.1075	ppb	0.06620	61.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.3     -0.0849 µg/L       0.02573     -0.0849 ppb        0.02573  30.30%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -39.4     -0.1676 µg/L       0.46265     -0.1676 ppb        0.46265 276.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        28.7      1.9324 µg/L       0.87141      1.9324 ppb        0.87141  45.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        240.2      98.835 µg/L       13.5645      98.835 ppb        13.5645  13.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.2      1.3331 µg/L       3.18442      1.3331 ppb        3.18442 238.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               57.9      0.0773 µg/L       0.01697      0.0773 ppb        0.01697  21.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               15.5      0.4935 µg/L       0.64782      0.4935 ppb        0.64782 131.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       157.2      23.781 µg/L        4.7751      23.781 ppb         4.7751  20.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.3      0.1164 µg/L       0.13923      0.1164 ppb        0.13923 119.65%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.7     -0.1590 µg/L       2.28406     -0.1590 ppb        2.28406 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -14.6     -0.8932 µg/L       1.21977     -0.8932 ppb        1.21977 136.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           8.0      6.5673 µg/L       5.71125      6.5673 ppb        5.71125  86.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.2      0.4345 µg/L       1.53310      0.4345 ppb        1.53310 352.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.1       -1.25 µg/L         0.756       -1.25 ppb          0.756  60.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -60.0     -6.4347 µg/L       0.96329     -6.4347 ppb        0.96329  14.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -26.5     -0.4368 µg/L       2.43806     -0.4368 ppb        2.43806 558.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.6      0.2467 µg/L       0.54828      0.2467 ppb        0.54828 222.22%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               75.1      0.1734 µg/L       0.04878      0.1734 ppb        0.04878  28.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               17.6      0.0185 µg/L       0.14588      0.0185 ppb        0.14588 788.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                7.1      0.9607 µg/L       1.33749      0.9607 ppb        1.33749 139.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -38.7     -2.4056 µg/L       5.46039     -2.4056 ppb        5.46039 226.98%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                52.4      0.2813 µg/L       0.40470      0.2813 ppb        0.40470 143.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               55.9      0.3459 µg/L       0.05250      0.3459 ppb        0.05250  15.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 99
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/30/2010 20:44:50
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	151904.4	151904.4	103	%			20:45:24
1	Al 396.153Radial†	26022.0	25386.9	5208.1	µg/L	5208.1	ppb	20:45:24
1	Ca 317.933Radial†	87863.9	84809.2	5102.8	µg/L	5102.8	ppb	20:45:24
1	Fe 238.204 Radial†	77878.4	75648.7	5090.3	µg/L	5090.3	ppb	20:45:24
1	K 766.490 Radial†	14283.7	12587.7	5176.4	µg/L	5176.4	ppb	20:45:24
1	Mg 279.077 IEC†	13202.7	12679.8	5209.4	µg/L	5209.4	ppb	20:45:24
1	Na 589.592 Radial†	69951.5	66868.5	10149	µg/L	10149	ppb	20:45:24
1	Sr 421.552†	229239.9	223312.5	515.11	µg/L	515.11	ppb	20:45:22
1	Sc 361.383	1776612.5	1776612.5	101.23	%			20:45:37
1	Y 371.029	1062092.1	1062092.1	99.817	%			20:45:37
1	Ag 328.068†	130066.6	125042.9	503.30	µg/L	503.30	ppb	20:45:37
1	As 188.979†	1481.1	1480.8	523.96	µg/L	523.96	ppb	20:45:57
1	B 249.677†	33984.0	30341.7	492.95	µg/L	492.95	ppb	20:45:37
1	Ba 233.527†	116180.5	114934.4	500.85	µg/L	500.85	ppb	20:45:37
1	Be 313.107†	1697244.2	1677456.7	503.57	µg/L	503.57	ppb	20:45:37
1	Cd 226.502†	73550.9	72769.4	499.34	µg/L	499.34	ppb	20:45:37
1	Co 228.616†	37479.0	37197.1	503.35	µg/L	503.35	ppb	20:45:37
1	Cr 267.716†	59937.2	59032.1	497.25	µg/L	497.25	ppb	20:45:37
1	Cu 324.752†	122717.1	118440.7	500.67	µg/L	500.67	ppb	20:45:37
1	Mn 257.610†	380459.5	375672.2	501.91	µg/L	501.91	ppb	20:45:37
1	Mo 202.031†	16006.8	15847.5	504.56	µg/L	504.56	ppb	20:45:57
1	Ni 231.604†	40179.4	39770.3	500.22	µg/L	500.22	ppb	20:45:37
1	P 214.914†	10718.8	10583.9	2515.9	µg/L	2515.9	ppb	20:45:57
1	Pb 220.353†	8476.1	8276.4	508.36	µg/L	508.36	ppb	20:45:57
1	S 181.975 Axial†	1332.5	1228.7	1011.4	µg/L	1011.4	ppb	20:45:57
1	Sb 206.836†	3971.3	3845.1	505.41	µg/L	505.41	ppb	20:45:57
1	Se 196.026†	1291.7	1262.4	508	µg/L	508	ppb	20:45:57
1	SiO2†	52126.0	49741.0	5299.9	µg/L	5299.9	ppb	20:45:37
1	Si 251.611†	157708.2	154847.9	2496.4	µg/L	2496.4	ppb	20:45:37
1	Sn 189.927†	7362.8	7276.1	505.42	µg/L	505.42	ppb	20:45:57
1	Ti 334.940†	507885.5	500843.6	501.11	µg/L	501.11	ppb	20:45:37
1	Tl 190.801†	3680.9	3753.3	511.93	µg/L	511.93	ppb	20:45:57
1	U 409.014†	7591.8	7783.6	517.87	µg/L	517.87	ppb	20:45:37
1	V 292.402†	95074.3	93612.0	503.69	µg/L	503.69	ppb	20:45:37
1	Zn 213.857†	82578.2	81052.7	498.76	µg/L	498.76	ppb	20:45:37
2	Sc RADIAL	152557.6	152557.6	103	%			20:45:28
2	Al 396.153Radial†	26089.2	25343.6	5199.3	µg/L	5199.3	ppb	20:45:28
2	Ca 317.933Radial†	87918.2	84495.7	5083.9	µg/L	5083.9	ppb	20:45:28
2	Fe 238.204 Radial†	78018.5	75460.0	5077.6	µg/L	5077.6	ppb	20:45:28
2	K 766.490 Radial†	14139.6	12388.6	5094.5	µg/L	5094.5	ppb	20:45:28
2	Mg 279.077 IEC†	13172.5	12595.5	5174.8	µg/L	5174.8	ppb	20:45:28
2	Na 589.592 Radial†	69979.5	66604.2	10109	µg/L	10109	ppb	20:45:28
2	Sr 421.552†	228446.9	221589.0	511.13	µg/L	511.13	ppb	20:45:26
2	Sc 361.383	1775434.8	1775434.8	101.16	%			20:46:00
2	Y 371.029	1060088.9	1060088.9	99.628	%			20:46:00
2	Ag 328.068†	129577.0	124644.2	501.69	µg/L	501.69	ppb	20:46:00
2	As 188.979†	1450.8	1451.8	513.83	µg/L	513.83	ppb	20:46:20
2	B 249.677†	34050.9	30430.2	494.40	µg/L	494.40	ppb	20:46:00
2	Ba 233.527†	116070.3	114901.6	500.71	µg/L	500.71	ppb	20:46:00
2	Be 313.107†	1697454.7	1678777.0	503.95	µg/L	503.95	ppb	20:46:00
2	Cd 226.502†	73538.2	72805.0	499.58	µg/L	499.58	ppb	20:46:00
2	Co 228.616†	37354.4	37098.6	502.01	µg/L	502.01	ppb	20:46:00
2	Cr 267.716†	59751.7	58888.0	496.06	µg/L	496.06	ppb	20:46:00
2	Cu 324.752†	122514.4	118320.7	500.13	µg/L	500.13	ppb	20:46:00
2	Mn 257.610†	379767.7	375237.6	501.33	µg/L	501.33	ppb	20:46:00
2	Mo 202.031†	15933.6	15785.7	502.59	µg/L	502.59	ppb	20:46:20
2	Ni 231.604†	40274.7	39890.8	501.74	µg/L	501.74	ppb	20:46:00
2	P 214.914†	10658.6	10531.4	2503.4	µg/L	2503.4	ppb	20:46:20
2	Pb 220.353†	8413.5	8220.0	504.93	µg/L	504.93	ppb	20:46:20

2	S 181.975 Axial†	1313.3	1210.6	996.59 µg/L	996.59 ppb	20:46:20
2	Sb 206.836†	3946.8	3823.5	502.57 µg/L	502.57 ppb	20:46:20
2	Se 196.026†	1279.2	1250.9	503 µg/L	503 ppb	20:46:20
2	SiO2†	52116.5	49765.8	5302.6 µg/L	5302.6 ppb	20:46:00
2	Si 251.611†	157497.4	154742.9	2494.7 µg/L	2494.7 ppb	20:46:00
2	Sn 189.927†	7347.5	7265.8	504.71 µg/L	504.71 ppb	20:46:20
2	Ti 334.940†	506417.0	499724.7	500.00 µg/L	500.00 ppb	20:46:00
2	Tl 190.801†	3685.4	3760.3	512.86 µg/L	512.86 ppb	20:46:20
2	U 409.014†	7082.5	7285.1	486.68 µg/L	486.68 ppb	20:46:00
2	V 292.402†	95124.4	93723.9	504.24 µg/L	504.24 ppb	20:46:00
2	Zn 213.857†	82471.4	81001.2	498.43 µg/L	498.43 ppb	20:46:00
3	Sc RADIAL	152739.9	152739.9	103 %		20:45:32
3	Al 396.153Radial†	25933.9	25163.1	5161.7 µg/L	5161.7 ppb	20:45:32
3	Ca 317.933Radial†	87836.0	84314.5	5073.0 µg/L	5073.0 ppb	20:45:32
3	Fe 238.204 Radial†	77965.7	75318.7	5068.1 µg/L	5068.1 ppb	20:45:32
3	K 766.490 Radial†	14242.6	12471.9	5128.8 µg/L	5128.8 ppb	20:45:32
3	Mg 279.077 IEC†	13175.4	12583.1	5169.9 µg/L	5169.9 ppb	20:45:32
3	Na 589.592 Radial†	69905.3	66451.5	10086 µg/L	10086 ppb	20:45:32
3	Sr 421.552†	228245.6	221130.0	510.07 µg/L	510.07 ppb	20:45:30
3	Sc 361.383	1755965.5	1755965.5	100.05 %		20:46:23
3	Y 371.029	1049080.8	1049080.8	98.594 %		20:46:23
3	Ag 328.068†	129277.4	125764.9	506.20 µg/L	506.20 ppb	20:46:23
3	As 188.979†	1463.6	1480.6	523.92 µg/L	523.92 ppb	20:46:43
3	B 249.677†	34071.9	30824.4	500.80 µg/L	500.80 ppb	20:46:23
3	Ba 233.527†	115792.6	115896.2	505.04 µg/L	505.04 ppb	20:46:23
3	Be 313.107†	1689272.9	1689204.0	507.09 µg/L	507.09 ppb	20:46:23
3	Cd 226.502†	73186.1	73259.1	502.70 µg/L	502.70 ppb	20:46:23
3	Co 228.616†	37397.7	37551.2	508.14 µg/L	508.14 ppb	20:46:23
3	Cr 267.716†	59662.3	59453.6	500.81 µg/L	500.81 ppb	20:46:23
3	Cu 324.752†	121938.4	119087.7	503.39 µg/L	503.39 ppb	20:46:23
3	Mn 257.610†	378591.5	378224.5	505.32 µg/L	505.32 ppb	20:46:23
3	Mo 202.031†	15977.6	16004.3	509.54 µg/L	509.54 ppb	20:46:43
3	Ni 231.604†	40245.7	40303.3	506.92 µg/L	506.92 ppb	20:46:23
3	P 214.914†	10714.1	10703.6	2544.4 µg/L	2544.4 ppb	20:46:43
3	Pb 220.353†	8477.9	8376.7	514.52 µg/L	514.52 ppb	20:46:43
3	S 181.975 Axial†	1318.4	1230.0	1012.6 µg/L	1012.6 ppb	20:46:43
3	Sb 206.836†	3972.2	3892.1	511.61 µg/L	511.61 ppb	20:46:43
3	Se 196.026†	1305.8	1291.6	519 µg/L	519 ppb	20:46:43
3	SiO2†	52051.9	50272.4	5356.5 µg/L	5356.5 ppb	20:46:23
3	Si 251.611†	156937.6	155909.6	2513.4 µg/L	2513.4 ppb	20:46:23
3	Sn 189.927†	7375.3	7374.1	512.22 µg/L	512.22 ppb	20:46:43
3	Ti 334.940†	504954.5	503813.5	504.09 µg/L	504.09 ppb	20:46:23
3	Tl 190.801†	3693.6	3808.8	519.42 µg/L	519.42 ppb	20:46:43
3	U 409.014†	7365.5	7645.6	509.41 µg/L	509.41 ppb	20:46:23
3	V 292.402†	94493.3	94135.7	506.53 µg/L	506.53 ppb	20:46:23
3	Zn 213.857†	81979.5	81413.5	500.96 µg/L	500.96 ppb	20:46:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1769337.6	100.81	%	0.661				0.66%
Sc RADIAL	152400.6	103	%	0.3				0.29%
Y 371.029	1057087.2	99.346	%	0.6584				0.66%
Ag 328.068†	125150.7	503.73	µg/L	2.284	503.73	ppb	2.284	0.45%
QC value within limits for Ag 328.068 Recovery = 100.75%								
Al 396.153Radial†	25297.9	5189.7	µg/L	24.61	5189.7	ppb	24.61	0.47%
QC value within limits for Al 396.153Radial Recovery = 103.79%								
As 188.979†	1471.1	520.57	µg/L	5.841	520.57	ppb	5.841	1.12%
QC value within limits for As 188.979 Recovery = 104.11%								
B 249.677†	30532.1	496.05	µg/L	4.179	496.05	ppb	4.179	0.84%
QC value within limits for B 249.677 Recovery = 99.21%								
Ba 233.527†	115244.1	502.20	µg/L	2.462	502.20	ppb	2.462	0.49%
QC value within limits for Ba 233.527 Recovery = 100.44%								
Be 313.107†	1681812.6	504.87	µg/L	1.932	504.87	ppb	1.932	0.38%
QC value within limits for Be 313.107 Recovery = 100.97%								
Ca 317.933Radial†	84539.8	5086.6	µg/L	15.06	5086.6	ppb	15.06	0.30%
QC value within limits for Ca 317.933Radial Recovery = 101.73%								
Cd 226.502†	72944.5	500.54	µg/L	1.877	500.54	ppb	1.877	0.38%
QC value within limits for Cd 226.502 Recovery = 100.11%								
Co 228.616†	37282.3	504.50	µg/L	3.222	504.50	ppb	3.222	0.64%

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   QC value within limits for Co 228.616  Recovery = 100.90%
Cr 267.716†            59124.5      498.04 µg/L         2.470      498.04 ppb          2.470   0.50%
   QC value within limits for Cr 267.716  Recovery = 99.61%
Cu 324.752†           118616.4      501.40 µg/L         1.744      501.40 ppb          1.744   0.35%
   QC value within limits for Cu 324.752  Recovery = 100.28%
Fe 238.204 Radial†     75475.8      5078.7 µg/L        11.14      5078.7 ppb          11.14   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.57%
K 766.490 Radial†      12482.8      5133.3 µg/L        41.16      5133.3 ppb          41.16   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 102.67%
Mg 279.077 IEC†        12619.5      5184.7 µg/L        21.54      5184.7 ppb          21.54   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.69%
Mn 257.610†           376378.1      502.85 µg/L         2.157      502.85 ppb          2.157   0.43%
   QC value within limits for Mn 257.610  Recovery = 100.57%
Mo 202.031†            15879.2      505.56 µg/L         3.584      505.56 ppb          3.584   0.71%
   QC value within limits for Mo 202.031  Recovery = 101.11%
Na 589.592 Radial†     66641.4       10115 µg/L          32.0       10115 ppb           32.0   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 101.15%
Ni 231.604†            39988.1      502.96 µg/L         3.515      502.96 ppb          3.515   0.70%
   QC value within limits for Ni 231.604  Recovery = 100.59%
P 214.914†             10606.3      2521.2 µg/L        21.04      2521.2 ppb          21.04   0.83%
   QC value within limits for P 214.914  Recovery = 100.85%
Pb 220.353†             8291.0      509.27 µg/L         4.860      509.27 ppb          4.860   0.95%
   QC value within limits for Pb 220.353  Recovery = 101.85%
S 181.975 Axial†        1223.1      1006.9 µg/L          8.92      1006.9 ppb           8.92   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 100.69%
Sb 206.836†             3853.6      506.53 µg/L         4.624      506.53 ppb          4.624   0.91%
   QC value within limits for Sb 206.836  Recovery = 101.31%
Se 196.026†             1268.3         510 µg/L           8.4         510 ppb            8.4   1.65%
   QC value within limits for Se 196.026  Recovery = 101.98%
SiO2†                  49926.4      5319.7 µg/L        31.93      5319.7 ppb          31.93   0.60%
   QC value within limits for SiO2  Recovery = 99.48%
Si 251.611†           155166.8      2501.5 µg/L        10.37      2501.5 ppb          10.37   0.41%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†             7305.3      507.45 µg/L         4.146      507.45 ppb          4.146   0.82%
   QC value within limits for Sn 189.927  Recovery = 101.49%
Sr 421.552†           222010.5      512.11 µg/L         2.654      512.11 ppb          2.654   0.52%
   QC value within limits for Sr 421.552  Recovery = 102.42%
Ti 334.940†           501460.6      501.73 µg/L         2.113      501.73 ppb          2.113   0.42%
   QC value within limits for Ti 334.940  Recovery = 100.35%
Tl 190.801†             3774.1      514.74 µg/L         4.084      514.74 ppb          4.084   0.79%
   QC value within limits for Tl 190.801  Recovery = 102.95%
U 409.014†              7571.4      504.65 µg/L        16.129      504.65 ppb         16.129   3.20%
   QC value within limits for U 409.014  Recovery = 100.93%
V 292.402†             93823.8      504.82 µg/L         1.507      504.82 ppb          1.507   0.30%
   QC value within limits for V 292.402  Recovery = 100.96%
Zn 213.857†            81155.8      499.38 µg/L         1.372      499.38 ppb          1.372   0.27%
   QC value within limits for Zn 213.857  Recovery = 99.88%
All analyte(s) passed QC.
```

Sequence No.: 100 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/30/2010 20:46:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155077.2	155077.2	105	%			20:47:22
1	Al 396.153Radial†	-58.1	7.5	1.5209	µg/L	1.5209	ppb	20:47:42
1	Ca 317.933Radial†	682.1	-47.8	-2.8761	µg/L	-2.8761	ppb	20:47:42
1	Fe 238.204 Radial†	208.3	57.9	3.8959	µg/L	3.8959	ppb	20:47:42
1	K 766.490 Radial†	1770.5	375.0	154.32	µg/L	154.32	ppb	20:47:22
1	Mg 279.077 IEC†	165.0	-11.5	-4.7125	µg/L	-4.7125	ppb	20:47:42
1	Na 589.592 Radial†	1519.0	241.4	36.520	µg/L	36.520	ppb	20:47:22
1	Sr 421.552†	-312.4	-76.1	-0.1756	µg/L	-0.1756	ppb	20:47:22
1	Sc 361.383	1772022.9	1772022.9	100.97	%			20:48:29
1	Y 371.029	1071521.3	1071521.3	100.70	%			20:48:29
1	Ag 328.068†	3631.0	149.2	0.5928	µg/L	0.5928	ppb	20:48:32
1	As 188.979†	-14.1	3.7	1.3040	µg/L	1.3040	ppb	20:48:52
1	B 249.677†	3280.1	18.4	0.2999	µg/L	0.2999	ppb	20:48:52
1	Ba 233.527†	-160.7	3.0	0.0128	µg/L	0.0128	ppb	20:48:52
1	Be 313.107†	-902.2	-108.0	-0.0316	µg/L	-0.0316	ppb	20:48:32
1	Cd 226.502†	-77.7	33.1	0.2268	µg/L	0.2268	ppb	20:48:52
1	Co 228.616†	-158.9	15.1	0.2037	µg/L	0.2037	ppb	20:48:52
1	Cr 267.716†	213.6	33.0	0.2755	µg/L	0.2755	ppb	20:48:52
1	Cu 324.752†	2902.3	85.6	0.3637	µg/L	0.3637	ppb	20:48:32
1	Mn 257.610†	294.1	115.7	0.1548	µg/L	0.1548	ppb	20:48:52
1	Mo 202.031†	-23.8	11.2	0.3560	µg/L	0.3560	ppb	20:48:52
1	Ni 231.604†	-73.5	5.1	0.0642	µg/L	0.0642	ppb	20:48:52
1	P 214.914†	-1.1	-6.1	-1.4493	µg/L	-1.4493	ppb	20:48:52
1	Pb 220.353†	78.2	-19.5	-1.1977	µg/L	-1.1977	ppb	20:48:52
1	S 181.975 Axial†	92.0	3.4	2.7988	µg/L	2.7988	ppb	20:48:52
1	Sb 206.836†	84.0	5.1	0.6715	µg/L	0.6715	ppb	20:48:52
1	Se 196.026†	11.3	-2.4	-0.940	µg/L	-0.940	ppb	20:48:52
1	SiO2†	1742.3	-27.5	-2.9657	µg/L	-2.9657	ppb	20:48:52
1	Si 251.611†	865.4	-91.5	-1.4930	µg/L	-1.4930	ppb	20:48:32
1	Sn 189.927†	11.7	14.1	0.9793	µg/L	0.9793	ppb	20:48:52
1	Ti 334.940†	1022.4	127.0	0.1263	µg/L	0.1263	ppb	20:48:32
1	Tl 190.801†	-122.4	-4.2	-0.5597	µg/L	-0.5597	ppb	20:48:52
1	U 409.014†	-240.6	45.5	2.8296	µg/L	2.8296	ppb	20:48:32
1	V 292.402†	253.6	-58.6	-0.3051	µg/L	-0.3051	ppb	20:48:32
1	Zn 213.857†	585.2	55.0	0.3402	µg/L	0.3402	ppb	20:48:52
2	Sc RADIAL	152322.5	152322.5	103	%			20:47:44
2	Al 396.153Radial†	-11.5	51.7	10.621	µg/L	10.621	ppb	20:48:04
2	Ca 317.933Radial†	696.5	-22.0	-1.3232	µg/L	-1.3232	ppb	20:48:04
2	Fe 238.204 Radial†	196.1	49.7	3.3411	µg/L	3.3411	ppb	20:48:04
2	K 766.490 Radial†	1418.6	63.9	26.311	µg/L	26.311	ppb	20:47:44
2	Mg 279.077 IEC†	173.2	-0.7	-0.2721	µg/L	-0.2721	ppb	20:48:04
2	Na 589.592 Radial†	1435.0	186.0	28.228	µg/L	28.228	ppb	20:47:44
2	Sr 421.552†	-126.7	98.7	0.2277	µg/L	0.2277	ppb	20:47:44
2	Sc 361.383	1783249.3	1783249.3	101.61	%			20:48:54
2	Y 371.029	1077637.1	1077637.1	101.28	%			20:48:54
2	Ag 328.068†	3498.3	-4.1	-0.0242	µg/L	-0.0242	ppb	20:48:56
2	As 188.979†	-15.3	2.7	0.9292	µg/L	0.9292	ppb	20:49:16
2	B 249.677†	3255.7	-26.0	-0.4236	µg/L	-0.4236	ppb	20:49:16
2	Ba 233.527†	-142.4	22.0	0.0962	µg/L	0.0962	ppb	20:49:16
2	Be 313.107†	-680.9	115.5	0.0327	µg/L	0.0327	ppb	20:48:56
2	Cd 226.502†	-74.6	36.6	0.2510	µg/L	0.2510	ppb	20:49:16
2	Co 228.616†	-195.5	-20.0	-0.2704	µg/L	-0.2704	ppb	20:49:16
2	Cr 267.716†	166.2	-14.9	-0.1209	µg/L	-0.1209	ppb	20:49:16
2	Cu 324.752†	2910.9	76.0	0.3154	µg/L	0.3154	ppb	20:48:56
2	Mn 257.610†	292.7	112.5	0.1503	µg/L	0.1503	ppb	20:49:16
2	Mo 202.031†	-10.4	24.5	0.7804	µg/L	0.7804	ppb	20:49:16
2	Ni 231.604†	-65.0	13.9	0.1746	µg/L	0.1746	ppb	20:49:16
2	P 214.914†	0.5	-4.6	-1.0915	µg/L	-1.0915	ppb	20:49:16
2	Pb 220.353†	77.2	-21.0	-1.2764	µg/L	-1.2764	ppb	20:49:16

2	S 181.975 Axial†	100.1	10.8	8.8962 µg/L	8.8962 ppb		20:49:16
2	Sb 206.836†	87.2	7.7	1.0243 µg/L	1.0243 ppb		20:49:16
2	Se 196.026†	22.6	8.7	3.47 µg/L	3.47 ppb		20:49:16
2	SiO2†	1742.6	-38.1	-4.1083 µg/L	-4.1083 ppb		20:49:16
2	Si 251.611†	805.5	-155.9	-2.5381 µg/L	-2.5381 ppb		20:48:56
2	Sn 189.927†	8.1	10.5	0.7301 µg/L	0.7301 ppb		20:49:16
2	Ti 334.940†	1169.5	265.5	0.2686 µg/L	0.2686 ppb		20:48:56
2	Tl 190.801†	-109.1	9.7	1.3055 µg/L	1.3055 ppb		20:49:16
2	U 409.014†	-391.1	-101.1	-6.3357 µg/L	-6.3357 ppb		20:48:56
2	V 292.402†	311.4	-3.4	-0.0153 µg/L	-0.0153 ppb		20:48:56
2	Zn 213.857†	611.1	76.9	0.4757 µg/L	0.4757 ppb		20:49:16
3	Sc RADIAL	153371.0	153371.0	104 %			20:48:06
3	Al 396.153Radial†	-41.1	23.3	4.7709 µg/L	4.7709 ppb		20:48:26
3	Ca 317.933Radial†	700.1	-23.2	-1.3951 µg/L	-1.3951 ppb		20:48:26
3	Fe 238.204 Radial†	182.7	35.4	2.3798 µg/L	2.3798 ppb		20:48:26
3	K 766.490 Radial†	1464.8	99.1	40.777 µg/L	40.777 ppb		20:48:06
3	Mg 279.077 IEC†	180.7	5.3	2.2042 µg/L	2.2042 ppb		20:48:26
3	Na 589.592 Radial†	1272.9	20.3	3.0413 µg/L	3.0413 ppb		20:48:06
3	Sr 421.552†	-226.6	3.2	0.0075 µg/L	0.0075 ppb		20:48:06
3	Sc 361.383	1779882.5	1779882.5	101.41 %			20:49:18
3	Y 371.029	1076637.8	1076637.8	101.18 %			20:49:18
3	Ag 328.068†	3679.4	181.1	0.7235 µg/L	0.7235 ppb		20:49:20
3	As 188.979†	-19.6	-1.6	-0.5633 µg/L	-0.5633 ppb		20:49:40
3	B 249.677†	3227.9	-47.4	-0.7724 µg/L	-0.7724 ppb		20:49:40
3	Ba 233.527†	-154.0	10.3	0.0450 µg/L	0.0450 ppb		20:49:40
3	Be 313.107†	-863.6	-66.0	-0.0192 µg/L	-0.0192 ppb		20:49:20
3	Cd 226.502†	-99.5	12.0	0.0820 µg/L	0.0820 ppb		20:49:40
3	Co 228.616†	-184.7	-9.7	-0.1316 µg/L	-0.1316 ppb		20:49:40
3	Cr 267.716†	177.3	-3.8	-0.0332 µg/L	-0.0332 ppb		20:49:40
3	Cu 324.752†	2897.9	68.6	0.2910 µg/L	0.2910 ppb		20:49:20
3	Mn 257.610†	280.5	101.0	0.1349 µg/L	0.1349 ppb		20:49:40
3	Mo 202.031†	-18.6	16.5	0.5237 µg/L	0.5237 ppb		20:49:40
3	Ni 231.604†	-55.7	23.0	0.2888 µg/L	0.2888 ppb		20:49:40
3	P 214.914†	24.4	19.0	4.5404 µg/L	4.5404 ppb		20:49:40
3	Pb 220.353†	93.2	-5.1	-0.3114 µg/L	-0.3114 ppb		20:49:40
3	S 181.975 Axial†	91.6	2.6	2.1670 µg/L	2.1670 ppb		20:49:40
3	Sb 206.836†	89.2	9.9	1.3093 µg/L	1.3093 ppb		20:49:40
3	Se 196.026†	19.6	5.8	2.32 µg/L	2.32 ppb		20:49:40
3	SiO2†	1709.1	-67.8	-7.2800 µg/L	-7.2800 ppb		20:49:40
3	Si 251.611†	905.8	-55.5	-0.9100 µg/L	-0.9100 ppb		20:49:20
3	Sn 189.927†	7.2	9.6	0.6647 µg/L	0.6647 ppb		20:49:40
3	Ti 334.940†	1001.0	101.5	0.1006 µg/L	0.1006 ppb		20:49:20
3	Tl 190.801†	-120.6	-1.8	-0.2389 µg/L	-0.2389 ppb		20:49:40
3	U 409.014†	-254.0	33.3	2.0917 µg/L	2.0917 ppb		20:49:20
3	V 292.402†	335.0	20.4	0.1149 µg/L	0.1149 ppb		20:49:20
3	Zn 213.857†	584.6	51.9	0.3197 µg/L	0.3197 ppb		20:49:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778384.9	101.33	%	0.328				0.32%
Sc RADIAL	153590.2	104	%	0.9				0.91%
Y 371.029	1075265.4	101.05	%	0.308				0.31%
Ag 328.068†	108.7	0.4307	µg/L	0.39934	0.4307	ppb	0.39934	92.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	27.5	5.6376	µg/L	4.61156	5.6376	ppb	4.61156	81.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.6	0.5566	µg/L	0.98785	0.5566	ppb	0.98785	177.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.3	-0.2987	µg/L	0.54695	-0.2987	ppb	0.54695	183.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.8	0.0513	µg/L	0.04202	0.0513	ppb	0.04202	81.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-19.5	-0.0060	µg/L	0.03411	-0.0060	ppb	0.03411	569.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-31.0	-1.8648	µg/L	0.87654	-1.8648	ppb	0.87654	47.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1866	µg/L	0.09139	0.1866	ppb	0.09139	48.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.9	-0.0661	µg/L	0.24377	-0.0661	ppb	0.24377	368.63%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.8      0.0405 µg/L       0.20821      0.0405 ppb        0.20821 514.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                76.7      0.3233 µg/L       0.03701      0.3233 ppb        0.03701  11.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         47.6      3.2056 µg/L       0.76707      3.2056 ppb        0.76707  23.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         179.3     73.803 µg/L       70.1044     73.803 ppb        70.1044  94.99%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.9268 µg/L       3.50451     -0.9268 ppb        3.50451 378.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               109.7      0.1467 µg/L       0.01044      0.1467 ppb        0.01044   7.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                17.4      0.5534 µg/L       0.21371      0.5534 ppb        0.21371  38.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        149.2     22.596 µg/L       17.4353     22.596 ppb        17.4353  77.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.0      0.1759 µg/L       0.11227      0.1759 ppb        0.11227  63.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.8      0.6665 µg/L       3.35962      0.6665 ppb        3.35962 504.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -15.2     -0.9285 µg/L       0.53586     -0.9285 ppb        0.53586  57.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.6      4.6207 µg/L       3.71616      4.6207 ppb        3.71616  80.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.6      1.0017 µg/L       0.31946      1.0017 ppb        0.31946  31.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.0         1.62 µg/L         2.287         1.62 ppb          2.287 141.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -44.5     -4.7847 µg/L       2.23526     -4.7847 ppb        2.23526  46.72%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -101.0     -1.6470 µg/L       0.82488     -1.6470 ppb        0.82488  50.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.4      0.7913 µg/L       0.16602      0.7913 ppb        0.16602  20.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.6      0.0199 µg/L       0.20193      0.0199 ppb        0.20193 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               164.7      0.1652 µg/L       0.09049      0.1652 ppb        0.09049  54.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.2      0.1690 µg/L       0.99728      0.1690 ppb        0.99728 590.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -7.5     -0.4715 µg/L       5.09197     -0.4715 ppb        5.09197 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -13.9     -0.0685 µg/L       0.21499     -0.0685 ppb        0.21499 313.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                61.3      0.3785 µg/L       0.08473      0.3785 ppb        0.08473  22.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 108
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/30/2010 21:04:29
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	152250.8	152250.8	103	%			21:05:04
1	Al 396.153Radial†	25757.5	25072.5	5143.6	µg/L	5143.6	ppb	21:05:04
1	Ca 317.933Radial†	87347.2	84113.0	5060.9	µg/L	5060.9	ppb	21:05:04
1	Fe 238.204 Radial†	77578.3	75185.0	5059.1	µg/L	5059.1	ppb	21:05:04
1	K 766.490 Radial†	14103.4	12381.1	5091.4	µg/L	5091.4	ppb	21:05:04
1	Mg 279.077 IEC†	13280.7	12726.3	5228.4	µg/L	5228.4	ppb	21:05:04
1	Na 589.592 Radial†	69862.0	66626.8	10113	µg/L	10113	ppb	21:05:04
1	Sr 421.552†	229473.3	223031.7	514.46	µg/L	514.46	ppb	21:05:02
1	Sc 361.383	1785931.5	1785931.5	101.76	%			21:05:31
1	Y 371.029	1065935.1	1065935.1	100.18	%			21:05:31
1	Ag 328.068†	130784.6	125078.0	503.45	µg/L	503.45	ppb	21:05:31
1	As 188.979†	1459.8	1452.3	513.98	µg/L	513.98	ppb	21:05:51
1	B 249.677†	34479.7	30653.7	498.03	µg/L	498.03	ppb	21:05:31
1	Ba 233.527†	117298.2	115433.9	503.02	µg/L	503.02	ppb	21:05:31
1	Be 313.107†	1716488.5	1687619.6	506.61	µg/L	506.61	ppb	21:05:31
1	Cd 226.502†	74402.7	73227.3	502.49	µg/L	502.49	ppb	21:05:31
1	Co 228.616†	37892.2	37410.0	506.23	µg/L	506.23	ppb	21:05:31
1	Cr 267.716†	60425.5	59203.0	498.71	µg/L	498.71	ppb	21:05:31
1	Cu 324.752†	123299.8	118380.7	500.40	µg/L	500.40	ppb	21:05:31
1	Mn 257.610†	383700.4	376895.9	503.54	µg/L	503.54	ppb	21:05:31
1	Mo 202.031†	15863.7	15624.4	497.46	µg/L	497.46	ppb	21:05:51
1	Ni 231.604†	40730.8	40105.0	504.43	µg/L	504.43	ppb	21:05:31
1	P 214.914†	10608.0	10419.7	2476.8	µg/L	2476.8	ppb	21:05:51
1	Pb 220.353†	8405.7	8163.5	501.44	µg/L	501.44	ppb	21:05:51
1	S 181.975 Axial†	1322.8	1212.3	997.93	µg/L	997.93	ppb	21:05:51
1	Sb 206.836†	3948.9	3802.6	499.71	µg/L	499.71	ppb	21:05:51
1	Se 196.026†	1277.6	1241.9	499	µg/L	499	ppb	21:05:51
1	SiO2†	52953.2	50285.3	5358.4	µg/L	5358.4	ppb	21:05:31
1	Si 251.611†	158911.1	155217.1	2502.4	µg/L	2502.4	ppb	21:05:31
1	Sn 189.927†	7344.2	7219.9	501.53	µg/L	501.53	ppb	21:05:51
1	Ti 334.940†	510150.6	500451.5	500.72	µg/L	500.72	ppb	21:05:31
1	Tl 190.801†	3659.6	3713.5	506.57	µg/L	506.57	ppb	21:05:51
1	U 409.014†	7292.9	7450.7	497.17	µg/L	497.17	ppb	21:05:31
1	V 292.402†	96022.8	94054.1	505.96	µg/L	505.96	ppb	21:05:31
1	Zn 213.857†	83254.5	81291.6	500.22	µg/L	500.22	ppb	21:05:31
2	Sc RADIAL	152383.0	152383.0	103	%			21:05:08
2	Al 396.153Radial†	25659.2	24955.4	5119.3	µg/L	5119.3	ppb	21:05:08
2	Ca 317.933Radial†	87104.9	83804.3	5042.3	µg/L	5042.3	ppb	21:05:08
2	Fe 238.204 Radial†	77096.6	74652.3	5023.3	µg/L	5023.3	ppb	21:05:08
2	K 766.490 Radial†	14186.4	12449.7	5119.7	µg/L	5119.7	ppb	21:05:08
2	Mg 279.077 IEC†	13176.3	12613.8	5182.4	µg/L	5182.4	ppb	21:05:08
2	Na 589.592 Radial†	69373.3	66093.9	10032	µg/L	10032	ppb	21:05:08
2	Sr 421.552†	227420.0	220846.4	509.42	µg/L	509.42	ppb	21:05:06
2	Sc 361.383	1775882.2	1775882.2	101.19	%			21:05:54
2	Y 371.029	1060566.3	1060566.3	99.673	%			21:05:54
2	Ag 328.068†	130187.1	125214.9	503.98	µg/L	503.98	ppb	21:05:54
2	As 188.979†	1459.9	1460.4	516.84	µg/L	516.84	ppb	21:06:14
2	B 249.677†	34242.9	30611.4	497.35	µg/L	497.35	ppb	21:05:54
2	Ba 233.527†	116364.9	115163.8	501.85	µg/L	501.85	ppb	21:05:54
2	Be 313.107†	1701965.2	1682811.9	505.17	µg/L	505.17	ppb	21:05:54
2	Cd 226.502†	73685.9	72932.6	500.46	µg/L	500.46	ppb	21:05:54
2	Co 228.616†	37508.8	37241.8	503.96	µg/L	503.96	ppb	21:05:54
2	Cr 267.716†	60096.3	59213.6	498.79	µg/L	498.79	ppb	21:05:54
2	Cu 324.752†	122682.7	118456.5	500.71	µg/L	500.71	ppb	21:05:54
2	Mn 257.610†	380171.5	375542.1	501.74	µg/L	501.74	ppb	21:05:54
2	Mo 202.031†	15919.1	15767.4	502.01	µg/L	502.01	ppb	21:06:14
2	Ni 231.604†	40308.6	39914.3	502.03	µg/L	502.03	ppb	21:05:54
2	P 214.914†	10703.2	10572.8	2513.3	µg/L	2513.3	ppb	21:06:14
2	Pb 220.353†	8440.3	8244.4	506.40	µg/L	506.40	ppb	21:06:14

2	S 181.975 Axial†	1336.1	1232.7	1014.7 µg/L	1014.7 ppb	21:06:14
2	Sb 206.836†	3963.5	3839.0	504.56 µg/L	504.56 ppb	21:06:14
2	Se 196.026†	1275.5	1247.0	501 µg/L	501 ppb	21:06:14
2	SiO2†	52445.3	50077.7	5336.0 µg/L	5336.0 ppb	21:05:54
2	Si 251.611†	157618.5	154823.3	2496.0 µg/L	2496.0 ppb	21:05:54
2	Sn 189.927†	7354.2	7270.6	505.04 µg/L	505.04 ppb	21:06:14
2	Ti 334.940†	507231.1	500403.2	500.67 µg/L	500.67 ppb	21:05:54
2	Tl 190.801†	3683.5	3757.4	512.48 µg/L	512.48 ppb	21:06:14
2	U 409.014†	7360.2	7557.7	503.78 µg/L	503.78 ppb	21:05:54
2	V 292.402†	95210.0	93784.8	504.59 µg/L	504.59 ppb	21:05:54
2	Zn 213.857†	82476.3	80985.5	498.34 µg/L	498.34 ppb	21:05:54
3	Sc RADIAL	152054.3	152054.3	103 %		21:05:12
3	Al 396.153Radial†	25957.0	25298.7	5190.0 µg/L	5190.0 ppb	21:05:12
3	Ca 317.933Radial†	87859.0	84720.1	5097.4 µg/L	5097.4 ppb	21:05:12
3	Fe 238.204 Radial†	77827.5	75524.6	5082.0 µg/L	5082.0 ppb	21:05:12
3	K 766.490 Radial†	14288.5	12578.7	5172.7 µg/L	5172.7 ppb	21:05:12
3	Mg 279.077 IEC†	13216.7	12680.7	5209.8 µg/L	5209.8 ppb	21:05:12
3	Na 589.592 Radial†	69997.8	66846.4	10146 µg/L	10146 ppb	21:05:12
3	Sr 421.552†	228534.6	222407.0	513.02 µg/L	513.02 ppb	21:05:10
3	Sc 361.383	1774418.7	1774418.7	101.10 %		21:06:17
3	Y 371.029	1059333.3	1059333.3	99.557 %		21:06:17
3	Ag 328.068†	129903.2	125040.2	503.29 µg/L	503.29 ppb	21:06:17
3	As 188.979†	1468.6	1470.3	520.30 µg/L	520.30 ppb	21:06:37
3	B 249.677†	34264.4	30660.5	498.14 µg/L	498.14 ppb	21:06:17
3	Ba 233.527†	116526.4	115418.4	502.96 µg/L	502.96 ppb	21:06:17
3	Be 313.107†	1707296.9	1689472.8	507.17 µg/L	507.17 ppb	21:06:17
3	Cd 226.502†	74216.4	73517.5	504.48 µg/L	504.48 ppb	21:06:17
3	Co 228.616†	37578.4	37341.2	505.30 µg/L	505.30 ppb	21:06:17
3	Cr 267.716†	60098.9	59265.2	499.23 µg/L	499.23 ppb	21:06:17
3	Cu 324.752†	122854.9	118726.8	501.86 µg/L	501.86 ppb	21:06:17
3	Mn 257.610†	381315.1	376983.1	503.66 µg/L	503.66 ppb	21:06:17
3	Mo 202.031†	15906.8	15768.2	502.03 µg/L	502.03 ppb	21:06:37
3	Ni 231.604†	40397.5	40035.1	503.55 µg/L	503.55 ppb	21:06:17
3	P 214.914†	10702.5	10580.8	2515.2 µg/L	2515.2 ppb	21:06:37
3	Pb 220.353†	8443.7	8254.7	507.04 µg/L	507.04 ppb	21:06:37
3	S 181.975 Axial†	1321.3	1219.2	1003.7 µg/L	1003.7 ppb	21:06:37
3	Sb 206.836†	3947.7	3826.6	502.93 µg/L	502.93 ppb	21:06:37
3	Se 196.026†	1300.0	1272.3	511 µg/L	511 ppb	21:06:37
3	SiO2†	52544.1	50218.3	5351.0 µg/L	5351.0 ppb	21:06:17
3	Si 251.611†	158179.1	155506.3	2507.0 µg/L	2507.0 ppb	21:06:17
3	Sn 189.927†	7381.8	7303.8	507.35 µg/L	507.35 ppb	21:06:37
3	Ti 334.940†	507743.6	501323.5	501.59 µg/L	501.59 ppb	21:06:17
3	Tl 190.801†	3682.1	3759.1	512.71 µg/L	512.71 ppb	21:06:37
3	U 409.014†	7243.5	7448.3	496.99 µg/L	496.99 ppb	21:06:17
3	V 292.402†	95296.1	93947.5	505.44 µg/L	505.44 ppb	21:06:17
3	Zn 213.857†	82733.5	81307.1	500.32 µg/L	500.32 ppb	21:06:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778744.1	101.35	%	0.357				0.35%
Sc RADIAL	152229.4	103	%	0.1				0.11%
Y 371.029	1061944.9	99.803	%	0.3299				0.33%
Ag 328.068†	125111.0	503.57	µg/L	0.364	503.57	ppb	0.364	0.07%
QC value within limits for Ag 328.068 Recovery = 100.71%								
Al 396.153Radial†	25108.9	5151.0	µg/L	35.94	5151.0	ppb	35.94	0.70%
QC value within limits for Al 396.153Radial Recovery = 103.02%								
As 188.979†	1461.0	517.04	µg/L	3.166	517.04	ppb	3.166	0.61%
QC value within limits for As 188.979 Recovery = 103.41%								
B 249.677†	30641.9	497.84	µg/L	0.430	497.84	ppb	0.430	0.09%
QC value within limits for B 249.677 Recovery = 99.57%								
Ba 233.527†	115338.7	502.61	µg/L	0.660	502.61	ppb	0.660	0.13%
QC value within limits for Ba 233.527 Recovery = 100.52%								
Be 313.107†	1686634.8	506.31	µg/L	1.031	506.31	ppb	1.031	0.20%
QC value within limits for Be 313.107 Recovery = 101.26%								
Ca 317.933Radial†	84212.5	5066.9	µg/L	28.03	5066.9	ppb	28.03	0.55%
QC value within limits for Ca 317.933Radial Recovery = 101.34%								
Cd 226.502†	73225.8	502.48	µg/L	2.005	502.48	ppb	2.005	0.40%
QC value within limits for Cd 226.502 Recovery = 100.50%								
Co 228.616†	37331.0	505.16	µg/L	1.144	505.16	ppb	1.144	0.23%

```
   QC value within limits for Co 228.616  Recovery = 101.03%
Cr 267.716†            59227.3      498.91 µg/L        0.282      498.91 ppb          0.282   0.06%
   QC value within limits for Cr 267.716  Recovery = 99.78%
Cu 324.752†           118521.3      500.99 µg/L        0.768      500.99 ppb          0.768   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.20%
Fe 238.204 Radial†     75120.6      5054.8 µg/L        29.59      5054.8 ppb          29.59   0.59%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.10%
K 766.490 Radial†      12469.8      5127.9 µg/L        41.28      5127.9 ppb          41.28   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 102.56%
Mg 279.077 IEC†        12673.6      5206.8 µg/L        23.14      5206.8 ppb          23.14   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.14%
Mn 257.610†           376473.7      502.98 µg/L        1.079      502.98 ppb          1.079   0.21%
   QC value within limits for Mn 257.610  Recovery = 100.60%
Mo 202.031†            15720.0      500.50 µg/L        2.633      500.50 ppb          2.633   0.53%
   QC value within limits for Mo 202.031  Recovery = 100.10%
Na 589.592 Radial†     66522.3       10097 µg/L         58.7       10097 ppb           58.7   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†            40018.1      503.34 µg/L        1.213      503.34 ppb          1.213   0.24%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†             10524.4      2501.7 µg/L        21.65      2501.7 ppb          21.65   0.87%
   QC value within limits for P 214.914  Recovery = 100.07%
Pb 220.353†             8220.9      504.96 µg/L        3.064      504.96 ppb          3.064   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.99%
S 181.975 Axial†        1221.4      1005.4 µg/L         8.54      1005.4 ppb           8.54   0.85%
   QC value within limits for S 181.975 Axial  Recovery = 100.54%
Sb 206.836†             3822.7      502.40 µg/L        2.468      502.40 ppb          2.468   0.49%
   QC value within limits for Sb 206.836  Recovery = 100.48%
Se 196.026†             1253.7         504 µg/L          6.5         504 ppb            6.5   1.29%
   QC value within limits for Se 196.026  Recovery = 100.81%
SiO2†                  50193.8      5348.5 µg/L        11.40      5348.5 ppb          11.40   0.21%
   QC value within limits for SiO2  Recovery = 100.02%
Si 251.611†           155182.2      2501.8 µg/L         5.55      2501.8 ppb           5.55   0.22%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7264.8      504.64 µg/L        2.929      504.64 ppb          2.929   0.58%
   QC value within limits for Sn 189.927  Recovery = 100.93%
Sr 421.552†           222095.0      512.30 µg/L        2.596      512.30 ppb          2.596   0.51%
   QC value within limits for Sr 421.552  Recovery = 102.46%
Ti 334.940†           500726.1      500.99 µg/L        0.520      500.99 ppb          0.520   0.10%
   QC value within limits for Ti 334.940  Recovery = 100.20%
Tl 190.801†             3743.3      510.59 µg/L        3.479      510.59 ppb          3.479   0.68%
   QC value within limits for Tl 190.801  Recovery = 102.12%
U 409.014†              7485.6      499.31 µg/L        3.873      499.31 ppb          3.873   0.78%
   QC value within limits for U 409.014  Recovery = 99.86%
V 292.402†             93928.8      505.33 µg/L        0.694      505.33 ppb          0.694   0.14%
   QC value within limits for V 292.402  Recovery = 101.07%
Zn 213.857†            81194.7      499.62 µg/L        1.115      499.62 ppb          1.115   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.92%
All analyte(s) passed QC.
```

Sequence No.: 109 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/30/2010 21:06:46**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153677.2	153677.2	104	%			21:07:17
1	Al 396.153Radial†	-39.4	25.0	5.1206	µg/L	5.1206	ppb	21:07:37
1	Ca 317.933Radial†	707.2	-17.7	-1.0642	µg/L	-1.0642	ppb	21:07:37
1	Fe 238.204 Radial†	183.4	35.7	2.4036	µg/L	2.4036	ppb	21:07:37
1	K 766.490 Radial†	1690.0	312.9	128.79	µg/L	128.79	ppb	21:07:17
1	Mg 279.077 IEC†	184.2	8.4	3.4622	µg/L	3.4622	ppb	21:07:37
1	Na 589.592 Radial†	1476.4	213.6	32.321	µg/L	32.321	ppb	21:07:17
1	Sr 421.552†	-214.3	15.5	0.0358	µg/L	0.0358	ppb	21:07:17
1	Sc 361.383	1796720.7	1796720.7	102.37	%			21:08:25
1	Y 371.029	1085770.1	1085770.1	102.04	%			21:08:25
1	Ag 328.068†	3720.7	187.4	0.7385	µg/L	0.7385	ppb	21:08:27
1	As 188.979†	-12.0	6.0	2.0927	µg/L	2.0927	ppb	21:08:47
1	B 249.677†	3331.3	23.8	0.3878	µg/L	0.3878	ppb	21:08:47
1	Ba 233.527†	-142.4	23.1	0.1003	µg/L	0.1003	ppb	21:08:47
1	Be 313.107†	-604.6	195.0	0.0581	µg/L	0.0581	ppb	21:08:27
1	Cd 226.502†	-94.1	18.1	0.1240	µg/L	0.1240	ppb	21:08:47
1	Co 228.616†	-178.6	-2.0	-0.0269	µg/L	-0.0269	ppb	21:08:47
1	Cr 267.716†	166.5	-15.9	-0.1329	µg/L	-0.1329	ppb	21:08:47
1	Cu 324.752†	2915.7	59.1	0.2484	µg/L	0.2484	ppb	21:08:27
1	Mn 257.610†	293.6	111.2	0.1485	µg/L	0.1485	ppb	21:08:47
1	Mo 202.031†	-19.6	15.6	0.4978	µg/L	0.4978	ppb	21:08:47
1	Ni 231.604†	-74.8	4.8	0.0608	µg/L	0.0608	ppb	21:08:47
1	P 214.914†	-7.0	-11.8	-2.8335	µg/L	-2.8335	ppb	21:08:47
1	Pb 220.353†	99.5	0.2	0.0143	µg/L	0.0143	ppb	21:08:47
1	S 181.975 Axial†	102.2	12.2	9.9786	µg/L	9.9786	ppb	21:08:47
1	Sb 206.836†	71.1	-8.6	-1.1243	µg/L	-1.1243	ppb	21:08:47
1	Se 196.026†	-2.8	-16.3	-6.51	µg/L	-6.51	ppb	21:08:47
1	SiO2†	1754.2	-39.6	-4.2460	µg/L	-4.2460	ppb	21:08:47
1	Si 251.611†	930.5	-39.8	-0.6499	µg/L	-0.6499	ppb	21:08:47
1	Sn 189.927†	-3.0	-0.4	-0.0252	µg/L	-0.0252	ppb	21:08:47
1	Ti 334.940†	1052.4	142.4	0.1430	µg/L	0.1430	ppb	21:08:27
1	Tl 190.801†	-105.0	14.5	1.9435	µg/L	1.9435	ppb	21:08:47
1	U 409.014†	-314.9	-23.9	-1.5168	µg/L	-1.5168	ppb	21:08:27
1	V 292.402†	247.0	-68.5	-0.3606	µg/L	-0.3606	ppb	21:08:27
1	Zn 213.857†	608.2	69.5	0.4306	µg/L	0.4306	ppb	21:08:47
2	Sc RADIAL	152648.1	152648.1	103	%			21:07:39
2	Al 396.153Radial†	-26.9	36.9	7.5643	µg/L	7.5643	ppb	21:07:59
2	Ca 317.933Radial†	678.5	-40.9	-2.4620	µg/L	-2.4620	ppb	21:07:59
2	Fe 238.204 Radial†	167.8	21.8	1.4696	µg/L	1.4696	ppb	21:07:59
2	K 766.490 Radial†	1592.4	229.4	94.390	µg/L	94.390	ppb	21:07:39
2	Mg 279.077 IEC†	162.4	-11.5	-4.7167	µg/L	-4.7167	ppb	21:07:59
2	Na 589.592 Radial†	1514.2	259.8	39.365	µg/L	39.365	ppb	21:07:39
2	Sr 421.552†	-268.2	-38.1	-0.0879	µg/L	-0.0879	ppb	21:07:39
2	Sc 361.383	1777695.4	1777695.4	101.29	%			21:08:49
2	Y 371.029	1073650.9	1073650.9	100.90	%			21:08:49
2	Ag 328.068†	3732.3	237.7	0.9337	µg/L	0.9337	ppb	21:08:51
2	As 188.979†	-16.1	1.8	0.6271	µg/L	0.6271	ppb	21:09:11
2	B 249.677†	3267.6	-4.3	-0.0714	µg/L	-0.0714	ppb	21:09:11
2	Ba 233.527†	-142.9	21.0	0.0917	µg/L	0.0917	ppb	21:09:11
2	Be 313.107†	-767.2	28.2	0.0062	µg/L	0.0062	ppb	21:08:51
2	Cd 226.502†	-108.1	3.3	0.0225	µg/L	0.0225	ppb	21:09:11
2	Co 228.616†	-159.8	14.6	0.1980	µg/L	0.1980	ppb	21:09:11
2	Cr 267.716†	166.7	-14.0	-0.1123	µg/L	-0.1123	ppb	21:09:11
2	Cu 324.752†	2959.4	132.8	0.5536	µg/L	0.5536	ppb	21:08:51
2	Mn 257.610†	279.3	100.1	0.1340	µg/L	0.1340	ppb	21:09:11
2	Mo 202.031†	-14.4	20.6	0.6548	µg/L	0.6548	ppb	21:09:11
2	Ni 231.604†	-66.5	12.2	0.1537	µg/L	0.1537	ppb	21:09:11
2	P 214.914†	17.2	12.0	2.8494	µg/L	2.8494	ppb	21:09:11
2	Pb 220.353†	76.0	-21.9	-1.3349	µg/L	-1.3349	ppb	21:09:11

2	S 181.975 Axial†	93.6	4.7	3.8406 µg/L	3.8406 ppb	21:09:11
2	Sb 206.836†	72.2	-6.8	-0.8788 µg/L	-0.8788 ppb	21:09:11
2	Se 196.026†	23.3	9.4	3.76 µg/L	3.76 ppb	21:09:11
2	SiO2†	1776.4	0.7	0.0519 µg/L	0.0519 ppb	21:09:11
2	Si 251.611†	867.2	-92.5	-1.5062 µg/L	-1.5062 ppb	21:09:11
2	Sn 189.927†	-1.4	1.2	0.0804 µg/L	0.0804 ppb	21:09:11
2	Ti 334.940†	1088.0	188.5	0.1923 µg/L	0.1923 ppb	21:08:51
2	Tl 190.801†	-101.8	16.6	2.2334 µg/L	2.2334 ppb	21:09:11
2	U 409.014†	-406.8	-117.9	-7.3950 µg/L	-7.3950 ppb	21:08:51
2	V 292.402†	278.6	-34.8	-0.1839 µg/L	-0.1839 ppb	21:08:51
2	Zn 213.857†	614.9	82.5	0.5103 µg/L	0.5103 ppb	21:09:11
3	Sc RADIAL	152456.9	152456.9	103 %		21:08:01
3	Al 396.153Radial†	-85.7	-20.3	-4.1941 µg/L	-4.1941 ppb	21:08:21
3	Ca 317.933Radial†	639.6	-77.8	-4.6806 µg/L	-4.6806 ppb	21:08:21
3	Fe 238.204 Radial†	172.8	26.8	1.8037 µg/L	1.8037 ppb	21:08:21
3	K 766.490 Radial†	1590.5	229.4	94.426 µg/L	94.426 ppb	21:08:01
3	Mg 279.077 IEC†	161.4	-12.3	-5.0294 µg/L	-5.0294 ppb	21:08:21
3	Na 589.592 Radial†	1356.4	108.6	16.410 µg/L	16.410 ppb	21:08:01
3	Sr 421.552†	-294.8	-64.2	-0.1481 µg/L	-0.1481 ppb	21:08:01
3	Sc 361.383	1783257.3	1783257.3	101.61 %		21:09:13
3	Y 371.029	1077364.7	1077364.7	101.25 %		21:09:13
3	Ag 328.068†	3639.8	135.2	0.5365 µg/L	0.5365 ppb	21:09:16
3	As 188.979†	-12.3	5.6	1.9533 µg/L	1.9533 ppb	21:09:36
3	B 249.677†	3242.2	-39.4	-0.6416 µg/L	-0.6416 ppb	21:09:36
3	Ba 233.527†	-147.6	16.9	0.0739 µg/L	0.0739 ppb	21:09:36
3	Be 313.107†	-702.6	94.1	0.0265 µg/L	0.0265 ppb	21:09:16
3	Cd 226.502†	-84.1	27.2	0.1867 µg/L	0.1867 ppb	21:09:36
3	Co 228.616†	-189.7	-14.3	-0.1934 µg/L	-0.1934 ppb	21:09:36
3	Cr 267.716†	160.2	-20.9	-0.1711 µg/L	-0.1711 ppb	21:09:36
3	Cu 324.752†	2874.0	39.7	0.1624 µg/L	0.1624 ppb	21:09:16
3	Mn 257.610†	263.4	83.7	0.1120 µg/L	0.1120 ppb	21:09:36
3	Mo 202.031†	-22.7	12.4	0.3941 µg/L	0.3941 ppb	21:09:36
3	Ni 231.604†	-71.7	7.4	0.0926 µg/L	0.0926 ppb	21:09:36
3	P 214.914†	3.9	-1.1	-0.2787 µg/L	-0.2787 ppb	21:09:36
3	Pb 220.353†	90.7	-7.7	-0.4644 µg/L	-0.4644 ppb	21:09:36
3	S 181.975 Axial†	83.1	-5.9	-4.8734 µg/L	-4.8734 ppb	21:09:36
3	Sb 206.836†	81.9	2.5	0.3377 µg/L	0.3377 ppb	21:09:36
3	Se 196.026†	12.4	-1.4	-0.553 µg/L	-0.553 ppb	21:09:36
3	SiO2†	1738.8	-41.8	-4.4819 µg/L	-4.4819 ppb	21:09:36
3	Si 251.611†	838.4	-123.5	-2.0026 µg/L	-2.0026 ppb	21:09:36
3	Sn 189.927†	-7.4	-4.8	-0.3301 µg/L	-0.3301 ppb	21:09:36
3	Ti 334.940†	1011.4	109.9	0.1128 µg/L	0.1128 ppb	21:09:16
3	Tl 190.801†	-102.1	16.6	2.2400 µg/L	2.2400 ppb	21:09:36
3	U 409.014†	-381.4	-91.6	-5.7066 µg/L	-5.7066 ppb	21:09:16
3	V 292.402†	413.5	97.1	0.5147 µg/L	0.5147 ppb	21:09:16
3	Zn 213.857†	583.8	50.0	0.3095 µg/L	0.3095 ppb	21:09:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1785891.2	101.76	%	0.557				0.55%
Sc RADIAL	152927.4	103	%	0.4				0.43%
Y 371.029	1078928.6	101.40	%	0.584				0.58%
Ag 328.068†	186.8	0.7362	µg/L	0.19859	0.7362	ppb	0.19859	26.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.9	2.8303	µg/L	6.20477	2.8303	ppb	6.20477	219.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.5	1.5577	µg/L	0.80891	1.5577	ppb	0.80891	51.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-6.7	-0.1084	µg/L	0.51568	-0.1084	ppb	0.51568	475.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.3	0.0886	µg/L	0.01347	0.0886	ppb	0.01347	15.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.8	0.0303	µg/L	0.02613	0.0303	ppb	0.02613	86.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-45.5	-2.7356	µg/L	1.82366	-2.7356	ppb	1.82366	66.66%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.2	0.1111	µg/L	0.08283	0.1111	ppb	0.08283	74.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.5	-0.0074	µg/L	0.19643	-0.0074	ppb	0.19643	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -16.9     -0.1388 µg/L       0.02980     -0.1388 ppb        0.02980  21.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               77.2      0.3214 µg/L       0.20556      0.3214 ppb        0.20556  63.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        28.1      1.8923 µg/L       0.47326      1.8923 ppb        0.47326  25.01%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        257.2      105.87 µg/L        19.849      105.87 ppb         19.849  18.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -5.1     -2.0946 µg/L       4.81490     -2.0946 ppb        4.81490 229.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               98.3      0.1315 µg/L       0.01834      0.1315 ppb        0.01834  13.95%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               16.2      0.5155 µg/L       0.13126      0.5155 ppb        0.13126  25.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       194.0      29.365 µg/L       11.7597      29.365 ppb        11.7597  40.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.1      0.1023 µg/L       0.04723      0.1023 ppb        0.04723  46.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.3     -0.0876 µg/L       2.84626     -0.0876 ppb        2.84626 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.8     -0.5950 µg/L       0.68399     -0.5950 ppb        0.68399 114.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.6      2.9819 µg/L       7.46313      2.9819 ppb        7.46313 250.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.3     -0.5551 µg/L       0.78291     -0.5551 ppb        0.78291 141.03%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.7       -1.10 µg/L         5.159       -1.10 ppb          5.159 467.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -26.9     -2.8920 µg/L       2.55222     -2.8920 ppb        2.55222  88.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -85.3     -1.3862 µg/L       0.68427     -1.3862 ppb        0.68427  49.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.3     -0.0916 µg/L       0.21320     -0.0916 ppb        0.21320 232.64%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -28.9     -0.0667 µg/L       0.09371     -0.0667 ppb        0.09371 140.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              146.9      0.1494 µg/L       0.04013      0.1494 ppb        0.04013  26.87%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               15.9      2.1390 µg/L       0.16933      2.1390 ppb        0.16933   7.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -77.8     -4.8728 µg/L       3.02650     -4.8728 ppb        3.02650  62.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -2.1     -0.0099 µg/L       0.46286     -0.0099 ppb        0.46286 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               67.4      0.4168 µg/L       0.10109      0.4168 ppb        0.10109  24.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 114
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/30/2010 21:18:10
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	151631.9	151631.9	103	%			21:18:44
1	Al 396.153Radial†	26045.3	25455.1	5222.2	µg/L	5222.2	ppb	21:18:44
1	Ca 317.933Radial†	87712.1	84814.8	5103.1	µg/L	5103.1	ppb	21:18:44
1	Fe 238.204 Radial†	77774.2	75683.3	5092.6	µg/L	5092.6	ppb	21:18:44
1	K 766.490 Radial†	14284.5	12613.5	5187.0	µg/L	5187.0	ppb	21:18:44
1	Mg 279.077 IEC†	13202.8	12703.0	5218.9	µg/L	5218.9	ppb	21:18:44
1	Na 589.592 Radial†	69863.8	66905.4	10155	µg/L	10155	ppb	21:18:44
1	Sr 421.552†	227431.6	221950.6	511.97	µg/L	511.97	ppb	21:18:42
1	Sc 361.383	1768687.5	1768687.5	100.78	%			21:18:56
1	Y 371.029	1055307.6	1055307.6	99.179	%			21:18:56
1	Ag 328.068†	129918.8	125472.0	505.03	µg/L	505.03	ppb	21:18:56
1	As 188.979†	1473.4	1479.7	523.61	µg/L	523.61	ppb	21:19:17
1	B 249.677†	34105.9	30613.1	497.36	µg/L	497.36	ppb	21:18:56
1	Ba 233.527†	116649.9	115914.4	505.12	µg/L	505.12	ppb	21:18:56
1	Be 313.107†	1706391.0	1694045.9	508.54	µg/L	508.54	ppb	21:18:56
1	Cd 226.502†	74033.0	73573.3	504.86	µg/L	504.86	ppb	21:18:56
1	Co 228.616†	37620.2	37503.1	507.49	µg/L	507.49	ppb	21:18:56
1	Cr 267.716†	60107.5	59466.4	500.93	µg/L	500.93	ppb	21:18:56
1	Cu 324.752†	122803.0	119069.1	503.30	µg/L	503.30	ppb	21:18:56
1	Mn 257.610†	381421.7	378311.1	505.44	µg/L	505.44	ppb	21:18:56
1	Mo 202.031†	15884.6	15797.1	502.95	µg/L	502.95	ppb	21:19:17
1	Ni 231.604†	40333.2	40100.8	504.38	µg/L	504.38	ppb	21:18:56
1	P 214.914†	10682.6	10595.4	2518.6	µg/L	2518.6	ppb	21:19:17
1	Pb 220.353†	8425.9	8264.1	507.62	µg/L	507.62	ppb	21:19:17
1	S 181.975 Axial†	1325.6	1227.7	1010.7	µg/L	1010.7	ppb	21:19:17
1	Sb 206.836†	3941.9	3833.5	503.82	µg/L	503.82	ppb	21:19:17
1	Se 196.026†	1280.6	1257.2	505	µg/L	505	ppb	21:19:17
1	SiO2†	52559.2	50401.6	5370.6	µg/L	5370.6	ppb	21:18:56
1	Si 251.611†	158141.9	155976.3	2514.6	µg/L	2514.6	ppb	21:18:56
1	Sn 189.927†	7349.0	7295.0	506.74	µg/L	506.74	ppb	21:19:17
1	Ti 334.940†	507861.1	503067.5	503.34	µg/L	503.34	ppb	21:18:56
1	Tl 190.801†	3670.3	3759.2	512.75	µg/L	512.75	ppb	21:19:17
1	U 409.014†	7226.1	7454.2	497.48	µg/L	497.48	ppb	21:18:56
1	V 292.402†	95390.4	94346.5	507.57	µg/L	507.57	ppb	21:18:56
1	Zn 213.857†	82673.2	81512.5	501.58	µg/L	501.58	ppb	21:18:56
2	Sc RADIAL	153903.5	153903.5	104	%			21:18:48
2	Al 396.153Radial†	26249.1	25276.1	5185.5	µg/L	5185.5	ppb	21:18:48
2	Ca 317.933Radial†	88603.1	84408.5	5078.7	µg/L	5078.7	ppb	21:18:48
2	Fe 238.204 Radial†	78669.5	75424.2	5075.2	µg/L	5075.2	ppb	21:18:48
2	K 766.490 Radial†	14378.2	12498.0	5139.5	µg/L	5139.5	ppb	21:18:48
2	Mg 279.077 IEC†	13395.8	12698.4	5216.9	µg/L	5216.9	ppb	21:18:48
2	Na 589.592 Radial†	70515.1	66525.7	10097	µg/L	10097	ppb	21:18:48
2	Sr 421.552†	230265.8	221400.2	510.70	µg/L	510.70	ppb	21:18:46
2	Sc 361.383	1789061.4	1789061.4	101.94	%			21:19:20
2	Y 371.029	1067477.1	1067477.1	100.32	%			21:19:20
2	Ag 328.068†	131095.7	125158.4	503.76	µg/L	503.76	ppb	21:19:20
2	As 188.979†	1470.4	1460.2	516.75	µg/L	516.75	ppb	21:19:40
2	B 249.677†	34557.8	30671.0	498.32	µg/L	498.32	ppb	21:19:20
2	Ba 233.527†	117502.5	115432.7	503.02	µg/L	503.02	ppb	21:19:20
2	Be 313.107†	1722107.7	1690181.1	507.38	µg/L	507.38	ppb	21:19:20
2	Cd 226.502†	74669.3	73360.9	503.40	µg/L	503.40	ppb	21:19:20
2	Co 228.616†	37839.0	37292.7	504.64	µg/L	504.64	ppb	21:19:20
2	Cr 267.716†	60469.3	59142.1	498.19	µg/L	498.19	ppb	21:19:20
2	Cu 324.752†	123402.0	118269.0	499.93	µg/L	499.93	ppb	21:19:20
2	Mn 257.610†	383781.4	376315.8	502.77	µg/L	502.77	ppb	21:19:20
2	Mo 202.031†	15949.3	15681.1	499.26	µg/L	499.26	ppb	21:19:40
2	Ni 231.604†	40697.1	40001.9	503.13	µg/L	503.13	ppb	21:19:20
2	P 214.914†	10762.9	10553.5	2508.7	µg/L	2508.7	ppb	21:19:40
2	Pb 220.353†	8485.8	8227.7	505.37	µg/L	505.37	ppb	21:19:40

2	S 181.975 Axial†	1340.7	1227.6	1010.5 µg/L	1010.5 ppb	21:19:40
2	Sb 206.836†	3958.8	3805.5	500.14 µg/L	500.14 ppb	21:19:40
2	Se 196.026†	1301.5	1263.2	508 µg/L	508 ppb	21:19:40
2	SiO2†	52800.7	50044.6	5332.5 µg/L	5332.5 ppb	21:19:20
2	Si 251.611†	159073.2	155102.9	2500.6 µg/L	2500.6 ppb	21:19:20
2	Sn 189.927†	7411.4	7273.1	505.22 µg/L	505.22 ppb	21:19:40
2	Ti 334.940†	511242.0	500645.1	500.91 µg/L	500.91 ppb	21:19:20
2	Tl 190.801†	3687.1	3734.1	509.35 µg/L	509.35 ppb	21:19:40
2	U 409.014†	7333.2	7477.6	498.80 µg/L	498.80 ppb	21:19:20
2	V 292.402†	96018.4	93884.7	505.08 µg/L	505.08 ppb	21:19:20
2	Zn 213.857†	83458.6	81348.7	500.58 µg/L	500.58 ppb	21:19:20
3	Sc RADIAL	154073.4	154073.4	104 %		21:18:52
3	Al 396.153Radial†	26145.6	25149.0	5159.2 µg/L	5159.2 ppb	21:18:52
3	Ca 317.933Radial†	88246.9	83972.9	5052.4 µg/L	5052.4 ppb	21:18:52
3	Fe 238.204 Radial†	78381.5	75064.5	5051.0 µg/L	5051.0 ppb	21:18:52
3	K 766.490 Radial†	14455.2	12556.6	5163.7 µg/L	5163.7 ppb	21:18:52
3	Mg 279.077 IEC†	13385.3	12674.1	5207.1 µg/L	5207.1 ppb	21:18:52
3	Na 589.592 Radial†	70201.9	66150.5	10040 µg/L	10040 ppb	21:18:52
3	Sr 421.552†	230383.3	221269.1	510.40 µg/L	510.40 ppb	21:18:50
3	Sc 361.383	1774253.6	1774253.6	101.09 %		21:19:43
3	Y 371.029	1057800.0	1057800.0	99.413 %		21:19:43
3	Ag 328.068†	130220.5	125365.9	504.59 µg/L	504.59 ppb	21:19:43
3	As 188.979†	1457.4	1459.3	516.48 µg/L	516.48 ppb	21:20:03
3	B 249.677†	34468.1	30865.3	501.47 µg/L	501.47 ppb	21:19:43
3	Ba 233.527†	116797.3	115697.1	504.17 µg/L	504.17 ppb	21:19:43
3	Be 313.107†	1711330.3	1693619.7	508.41 µg/L	508.41 ppb	21:19:43
3	Cd 226.502†	74370.4	73676.7	505.57 µg/L	505.57 ppb	21:19:43
3	Co 228.616†	37728.8	37493.5	507.36 µg/L	507.36 ppb	21:19:43
3	Cr 267.716†	60198.9	59369.7	500.11 µg/L	500.11 ppb	21:19:43
3	Cu 324.752†	122728.4	118613.0	501.38 µg/L	501.38 ppb	21:19:43
3	Mn 257.610†	381598.4	377298.5	504.08 µg/L	504.08 ppb	21:19:43
3	Mo 202.031†	15887.1	15750.2	501.46 µg/L	501.46 ppb	21:20:03
3	Ni 231.604†	40432.0	40072.9	504.03 µg/L	504.03 ppb	21:19:43
3	P 214.914†	10710.5	10589.8	2517.3 µg/L	2517.3 ppb	21:20:03
3	Pb 220.353†	8465.4	8276.9	508.39 µg/L	508.39 ppb	21:20:03
3	S 181.975 Axial†	1317.3	1215.3	1000.5 µg/L	1000.5 ppb	21:20:03
3	Sb 206.836†	3935.2	3814.6	501.34 µg/L	501.34 ppb	21:20:03
3	Se 196.026†	1290.6	1263.1	508 µg/L	508 ppb	21:20:03
3	SiO2†	52664.6	50342.3	5364.3 µg/L	5364.3 ppb	21:19:43
3	Si 251.611†	158392.5	155731.9	2510.7 µg/L	2510.7 ppb	21:19:43
3	Sn 189.927†	7362.2	7285.1	506.05 µg/L	506.05 ppb	21:20:03
3	Ti 334.940†	508369.1	501989.0	502.26 µg/L	502.26 ppb	21:19:43
3	Tl 190.801†	3659.0	3736.5	509.68 µg/L	509.68 ppb	21:20:03
3	U 409.014†	7329.8	7534.3	502.39 µg/L	502.39 ppb	21:19:43
3	V 292.402†	95311.3	93971.3	505.57 µg/L	505.57 ppb	21:19:43
3	Zn 213.857†	83007.1	81585.4	502.04 µg/L	502.04 ppb	21:19:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1777334.1	101.27	%	0.600				0.59%
Sc RADIAL	153202.9	104	%	0.9				0.89%
Y 371.029	1060194.9	99.638	%	0.6042				0.61%
Ag 328.068†	125332.1	504.46	µg/L	0.647	504.46	ppb	0.647	0.13%
QC value within limits for Ag 328.068 Recovery = 100.89%								
Al 396.153Radial†	25293.4	5189.0	µg/L	31.66	5189.0	ppb	31.66	0.61%
QC value within limits for Al 396.153Radial Recovery = 103.78%								
As 188.979†	1466.4	518.95	µg/L	4.042	518.95	ppb	4.042	0.78%
QC value within limits for As 188.979 Recovery = 103.79%								
B 249.677†	30716.5	499.05	µg/L	2.152	499.05	ppb	2.152	0.43%
QC value within limits for B 249.677 Recovery = 99.81%								
Ba 233.527†	115681.4	504.10	µg/L	1.052	504.10	ppb	1.052	0.21%
QC value within limits for Ba 233.527 Recovery = 100.82%								
Be 313.107†	1692615.6	508.11	µg/L	0.636	508.11	ppb	0.636	0.13%
QC value within limits for Be 313.107 Recovery = 101.62%								
Ca 317.933Radial†	84398.7	5078.1	µg/L	25.33	5078.1	ppb	25.33	0.50%
QC value within limits for Ca 317.933Radial Recovery = 101.56%								
Cd 226.502†	73537.0	504.61	µg/L	1.106	504.61	ppb	1.106	0.22%
QC value within limits for Cd 226.502 Recovery = 100.92%								
Co 228.616†	37429.8	506.50	µg/L	1.608	506.50	ppb	1.608	0.32%

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   QC value within limits for Co 228.616  Recovery = 101.30%
Cr 267.716†            59326.0      499.74 µg/L         1.404      499.74 ppb          1.404   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.95%
Cu 324.752†           118650.3      501.54 µg/L         1.693      501.54 ppb          1.693   0.34%
   QC value within limits for Cu 324.752  Recovery = 100.31%
Fe 238.204 Radial†     75390.7      5072.9 µg/L         20.91      5072.9 ppb          20.91   0.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.46%
K 766.490 Radial†      12556.0      5163.4 µg/L         23.76      5163.4 ppb          23.76   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 103.27%
Mg 279.077 IEC†        12691.8      5214.3 µg/L          6.35      5214.3 ppb           6.35   0.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.29%
Mn 257.610†           377308.4      504.10 µg/L         1.333      504.10 ppb          1.333   0.26%
   QC value within limits for Mn 257.610  Recovery = 100.82%
Mo 202.031†            15742.8      501.23 µg/L         1.857      501.23 ppb          1.857   0.37%
   QC value within limits for Mo 202.031  Recovery = 100.25%
Na 589.592 Radial†     66527.2       10097 µg/L          57.3       10097 ppb           57.3   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†            40058.5      503.85 µg/L         0.641      503.85 ppb          0.641   0.13%
   QC value within limits for Ni 231.604  Recovery = 100.77%
P 214.914†             10579.6      2514.9 µg/L          5.40      2514.9 ppb           5.40   0.21%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             8256.2      507.13 µg/L         1.569      507.13 ppb          1.569   0.31%
   QC value within limits for Pb 220.353  Recovery = 101.43%
S 181.975 Axial†        1223.5      1007.2 µg/L          5.82      1007.2 ppb           5.82   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 100.72%
Sb 206.836†             3817.9      501.77 µg/L         1.877      501.77 ppb          1.877   0.37%
   QC value within limits for Sb 206.836  Recovery = 100.35%
Se 196.026†             1261.2         507 µg/L           1.4         507 ppb            1.4   0.27%
   QC value within limits for Se 196.026  Recovery = 101.41%
SiO2†                  50262.8      5355.8 µg/L         20.40      5355.8 ppb          20.40   0.38%
   QC value within limits for SiO2  Recovery = 100.16%
Si 251.611†           155603.7      2508.6 µg/L          7.26      2508.6 ppb           7.26   0.29%
   QC value within limits for Si 251.611  Recovery = 100.35%
Sn 189.927†             7284.4      506.00 µg/L         0.761      506.00 ppb          0.761   0.15%
   QC value within limits for Sn 189.927  Recovery = 101.20%
Sr 421.552†           221540.0      511.02 µg/L         0.834      511.02 ppb          0.834   0.16%
   QC value within limits for Sr 421.552  Recovery = 102.20%
Ti 334.940†           501900.6      502.17 µg/L         1.216      502.17 ppb          1.216   0.24%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†             3743.3      510.59 µg/L         1.876      510.59 ppb          1.876   0.37%
   QC value within limits for Tl 190.801  Recovery = 102.12%
U 409.014†              7488.7      499.56 µg/L         2.538      499.56 ppb          2.538   0.51%
   QC value within limits for U 409.014  Recovery = 99.91%
V 292.402†             94067.5      506.07 µg/L         1.322      506.07 ppb          1.322   0.26%
   QC value within limits for V 292.402  Recovery = 101.21%
Zn 213.857†            81482.2      501.40 µg/L         0.749      501.40 ppb          0.749   0.15%
   QC value within limits for Zn 213.857  Recovery = 100.28%
All analyte(s) passed QC.
```

Sequence No.: 115
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/30/2010 21:20:10
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	152696.6	152696.6	103	%			21:20:41
1	Al 396.153Radial†	-30.7	33.2	6.8400	µg/L	6.8400	ppb	21:21:01
1	Ca 317.933Radial†	683.4	-36.3	-2.1859	µg/L	-2.1859	ppb	21:21:01
1	Fe 238.204 Radial†	180.7	34.2	2.3025	µg/L	2.3025	ppb	21:21:01
1	K 766.490 Radial†	1568.6	205.8	84.677	µg/L	84.677	ppb	21:20:41
1	Mg 279.077 IEC†	186.3	11.6	4.7428	µg/L	4.7428	ppb	21:21:01
1	Na 589.592 Radial†	1531.6	276.2	41.863	µg/L	41.863	ppb	21:20:41
1	Sr 421.552†	-202.7	25.4	0.0587	µg/L	0.0587	ppb	21:20:41
1	Sc 361.383	1776337.0	1776337.0	101.21	%			21:21:48
1	Y 371.029	1071521.2	1071521.2	100.70	%			21:21:48
1	Ag 328.068†	3644.4	153.7	0.5936	µg/L	0.5936	ppb	21:21:51
1	As 188.979†	-8.6	9.1	3.1890	µg/L	3.1890	ppb	21:22:11
1	B 249.677†	3320.3	50.2	0.8180	µg/L	0.8180	ppb	21:22:11
1	Ba 233.527†	-154.6	9.4	0.0409	µg/L	0.0409	ppb	21:22:11
1	Be 313.107†	-702.4	91.6	0.0234	µg/L	0.0234	ppb	21:21:51
1	Cd 226.502†	-127.2	-15.7	-0.1077	µg/L	-0.1077	ppb	21:22:11
1	Co 228.616†	-172.0	2.5	0.0332	µg/L	0.0332	ppb	21:22:11
1	Cr 267.716†	137.8	-42.5	-0.3472	µg/L	-0.3472	ppb	21:22:11
1	Cu 324.752†	3007.5	182.5	0.7585	µg/L	0.7585	ppb	21:21:51
1	Mn 257.610†	281.6	102.6	0.1370	µg/L	0.1370	ppb	21:22:11
1	Mo 202.031†	-35.6	-0.4	-0.0121	µg/L	-0.0121	ppb	21:22:11
1	Ni 231.604†	-83.8	-4.9	-0.0620	µg/L	-0.0620	ppb	21:22:11
1	P 214.914†	-9.3	-14.2	-3.4052	µg/L	-3.4052	ppb	21:22:11
1	Pb 220.353†	70.2	-27.6	-1.6779	µg/L	-1.6779	ppb	21:22:11
1	S 181.975 Axial†	99.1	10.2	8.3793	µg/L	8.3793	ppb	21:22:11
1	Sb 206.836†	83.0	3.9	0.5207	µg/L	0.5207	ppb	21:22:11
1	Se 196.026†	17.2	3.4	1.36	µg/L	1.36	ppb	21:22:11
1	SiO2†	1762.0	-12.2	-1.3038	µg/L	-1.3038	ppb	21:22:11
1	Si 251.611†	906.5	-53.0	-0.8574	µg/L	-0.8574	ppb	21:21:51
1	Sn 189.927†	-4.5	-1.9	-0.1326	µg/L	-0.1326	ppb	21:22:11
1	Ti 334.940†	985.7	88.3	0.0937	µg/L	0.0937	ppb	21:21:51
1	Tl 190.801†	-102.8	15.6	2.0909	µg/L	2.0909	ppb	21:22:11
1	U 409.014†	-505.2	-215.4	-13.495	µg/L	-13.495	ppb	21:21:51
1	V 292.402†	301.0	-12.5	-0.0774	µg/L	-0.0774	ppb	21:21:51
1	Zn 213.857†	609.8	78.0	0.4833	µg/L	0.4833	ppb	21:22:11
2	Sc RADIAL	152475.3	152475.3	103	%			21:21:03
2	Al 396.153Radial†	-50.1	14.4	2.9305	µg/L	2.9305	ppb	21:21:23
2	Ca 317.933Radial†	636.2	-81.2	-4.8839	µg/L	-4.8839	ppb	21:21:23
2	Fe 238.204 Radial†	179.6	33.4	2.2506	µg/L	2.2506	ppb	21:21:23
2	K 766.490 Radial†	1565.5	205.0	84.362	µg/L	84.362	ppb	21:21:03
2	Mg 279.077 IEC†	157.9	-15.7	-6.4417	µg/L	-6.4417	ppb	21:21:23
2	Na 589.592 Radial†	1374.9	126.4	19.111	µg/L	19.111	ppb	21:21:03
2	Sr 421.552†	-301.4	-70.6	-0.1628	µg/L	-0.1628	ppb	21:21:03
2	Sc 361.383	1806321.5	1806321.5	102.92	%			21:22:13
2	Y 371.029	1089292.1	1089292.1	102.37	%			21:22:13
2	Ag 328.068†	3427.5	-116.9	-0.4503	µg/L	-0.4503	ppb	21:22:15
2	As 188.979†	-10.5	7.5	2.6258	µg/L	2.6258	ppb	21:22:35
2	B 249.677†	3351.1	25.7	0.4185	µg/L	0.4185	ppb	21:22:35
2	Ba 233.527†	-180.7	-13.4	-0.0578	µg/L	-0.0578	ppb	21:22:35
2	Be 313.107†	-951.9	-139.3	-0.0396	µg/L	-0.0396	ppb	21:22:15
2	Cd 226.502†	-96.5	16.3	0.1114	µg/L	0.1114	ppb	21:22:35
2	Co 228.616†	-169.0	8.2	0.1107	µg/L	0.1107	ppb	21:22:35
2	Cr 267.716†	171.1	-12.3	-0.1092	µg/L	-0.1092	ppb	21:22:35
2	Cu 324.752†	2902.5	31.2	0.1378	µg/L	0.1378	ppb	21:22:15
2	Mn 257.610†	258.5	75.6	0.1013	µg/L	0.1013	ppb	21:22:35
2	Mo 202.031†	-17.0	18.2	0.5803	µg/L	0.5803	ppb	21:22:35
2	Ni 231.604†	-101.1	-20.4	-0.2564	µg/L	-0.2564	ppb	21:22:35
2	P 214.914†	-6.7	-11.5	-2.7538	µg/L	-2.7538	ppb	21:22:35
2	Pb 220.353†	73.8	-25.3	-1.5512	µg/L	-1.5512	ppb	21:22:35

2	S 181.975 Axial†	86.2	-4.0	-3.2454 µg/L	-3.2454 ppb	21:22:35
2	Sb 206.836†	77.6	-2.7	-0.3378 µg/L	-0.3378 ppb	21:22:35
2	Se 196.026†	21.8	7.6	3.05 µg/L	3.05 ppb	21:22:35
2	SiO2†	1795.6	-8.5	-0.9269 µg/L	-0.9269 ppb	21:22:35
2	Si 251.611†	825.8	-146.3	-2.3766 µg/L	-2.3766 ppb	21:22:15
2	Sn 189.927†	-1.7	0.9	0.0615 µg/L	0.0615 ppb	21:22:35
2	Ti 334.940†	908.5	-2.8	-0.0054 µg/L	-0.0054 ppb	21:22:15
2	Tl 190.801†	-112.2	8.0	1.0825 µg/L	1.0825 ppb	21:22:35
2	U 409.014†	-170.5	118.1	7.4210 µg/L	7.4210 ppb	21:22:15
2	V 292.402†	400.8	79.5	0.4326 µg/L	0.4326 ppb	21:22:15
2	Zn 213.857†	582.6	41.5	0.2591 µg/L	0.2591 ppb	21:22:35
3	Sc RADIAL	153938.4	153938.4	104 %		21:21:25
3	Al 396.153Radial†	-92.7	-26.2	-5.4070 µg/L	-5.4070 ppb	21:21:45
3	Ca 317.933Radial†	646.7	-76.9	-4.6271 µg/L	-4.6271 ppb	21:21:45
3	Fe 238.204 Radial†	168.4	21.0	1.4158 µg/L	1.4158 ppb	21:21:45
3	K 766.490 Radial†	1549.2	174.9	72.000 µg/L	72.000 ppb	21:21:25
3	Mg 279.077 IEC†	179.9	4.0	1.6306 µg/L	1.6306 ppb	21:21:45
3	Na 589.592 Radial†	1364.7	103.9	15.716 µg/L	15.716 ppb	21:21:25
3	Sr 421.552†	-222.9	7.6	0.0177 µg/L	0.0177 ppb	21:21:25
3	Sc 361.383	1775538.2	1775538.2	101.17 %		21:22:37
3	Y 371.029	1072315.6	1072315.6	100.78 %		21:22:37
3	Ag 328.068†	3608.1	119.5	0.4897 µg/L	0.4897 ppb	21:22:39
3	As 188.979†	-10.5	7.4	2.5654 µg/L	2.5654 ppb	21:22:59
3	B 249.677†	3330.9	62.2	1.0138 µg/L	1.0138 ppb	21:22:59
3	Ba 233.527†	-161.3	2.7	0.0122 µg/L	0.0122 ppb	21:22:59
3	Be 313.107†	-1046.4	-248.8	-0.0732 µg/L	-0.0732 ppb	21:22:39
3	Cd 226.502†	-109.7	1.5	0.0106 µg/L	0.0106 ppb	21:22:59
3	Co 228.616†	-170.3	4.1	0.0555 µg/L	0.0555 ppb	21:22:59
3	Cr 267.716†	165.2	-15.3	-0.1324 µg/L	-0.1324 ppb	21:22:59
3	Cu 324.752†	2825.6	4.1	0.0218 µg/L	0.0218 ppb	21:22:39
3	Mn 257.610†	247.7	69.3	0.0925 µg/L	0.0925 ppb	21:22:59
3	Mo 202.031†	-26.8	8.3	0.2644 µg/L	0.2644 ppb	21:22:59
3	Ni 231.604†	-60.4	18.2	0.2293 µg/L	0.2293 ppb	21:22:59
3	P 214.914†	-40.5	-45.1	-10.746 µg/L	-10.746 ppb	21:22:59
3	Pb 220.353†	62.5	-35.1	-2.1545 µg/L	-2.1545 ppb	21:22:59
3	S 181.975 Axial†	88.3	-0.4	-0.3563 µg/L	-0.3563 ppb	21:22:59
3	Sb 206.836†	84.1	5.0	0.6686 µg/L	0.6686 ppb	21:22:59
3	Se 196.026†	7.9	-5.8	-2.32 µg/L	-2.32 ppb	21:22:59
3	SiO2†	1788.7	15.0	1.5853 µg/L	1.5853 ppb	21:22:59
3	Si 251.611†	855.5	-103.0	-1.6750 µg/L	-1.6750 ppb	21:22:39
3	Sn 189.927†	6.6	9.0	0.6261 µg/L	0.6261 ppb	21:22:59
3	Ti 334.940†	1070.7	172.8	0.1709 µg/L	0.1709 ppb	21:22:39
3	Tl 190.801†	-103.9	14.4	1.9412 µg/L	1.9412 ppb	21:22:59
3	U 409.014†	-208.0	78.2	4.9397 µg/L	4.9397 ppb	21:22:39
3	V 292.402†	452.0	136.9	0.7322 µg/L	0.7322 ppb	21:22:39
3	Zn 213.857†	610.2	78.6	0.4858 µg/L	0.4858 ppb	21:22:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786065.6	101.77	%	1.000				0.98%
Sc RADIAL	153036.8	104	%	0.5				0.52%
Y 371.029	1077709.6	101.28	%	0.943				0.93%
Ag 328.068†	52.1	0.2110	µg/L	0.57507	0.2110	ppb	0.57507	272.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.1	1.4545	µg/L	6.25546	1.4545	ppb	6.25546	430.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.0	2.7934	µg/L	0.34392	2.7934	ppb	0.34392	12.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	46.0	0.7501	µg/L	0.30341	0.7501	ppb	0.30341	40.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.4	-0.0016	µg/L	0.05080	-0.0016	ppb	0.05080	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-98.8	-0.0298	µg/L	0.04903	-0.0298	ppb	0.04903	164.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-64.8	-3.8990	µg/L	1.48915	-3.8990	ppb	1.48915	38.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.7	0.0047	µg/L	0.10969	0.0047	ppb	0.10969	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.9	0.0664	µg/L	0.03989	0.0664	ppb	0.03989	60.04%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -23.4     -0.1963 µg/L       0.13125     -0.1963 ppb        0.13125  66.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               72.6      0.3060 µg/L       0.39613      0.3060 ppb        0.39613 129.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        29.6      1.9896 µg/L       0.49762      1.9896 ppb        0.49762  25.01%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        195.2     80.347 µg/L        7.2297     80.347 ppb         7.2297   9.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.1     -0.0228 µg/L       5.77268     -0.0228 ppb        5.77268 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               82.5      0.1103 µg/L       0.02354      0.1103 ppb        0.02354  21.35%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.7      0.2775 µg/L       0.29646      0.2775 ppb        0.29646 106.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       168.8     25.563 µg/L       14.2178     25.563 ppb        14.2178  55.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -2.4     -0.0297 µg/L       0.24443     -0.0297 ppb        0.24443 822.71%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -23.6     -5.6348 µg/L       4.43796     -5.6348 ppb        4.43796  78.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -29.3     -1.7945 µg/L       0.31809     -1.7945 ppb        0.31809  17.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.9      1.5925 µg/L       6.05244      1.5925 ppb        6.05244 380.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.1      0.2838 µg/L       0.54341      0.2838 ppb        0.54341 191.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.7       0.698 µg/L        2.7434       0.698 ppb         2.7434 393.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -1.9     -0.2152 µg/L       1.57055     -0.2152 ppb        1.57055 729.96%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -100.8     -1.6363 µg/L       0.76037     -1.6363 ppb        0.76037  46.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.7      0.1850 µg/L       0.39414      0.1850 ppb        0.39414 213.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -12.5     -0.0288 µg/L       0.11780     -0.0288 ppb        0.11780 408.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               86.1      0.0864 µg/L       0.08836      0.0864 ppb        0.08836 102.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               12.7      1.7048 µg/L       0.54419      1.7048 ppb        0.54419  31.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -6.4     -0.3781 µg/L      11.42697     -0.3781 ppb       11.42697 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                68.0      0.3625 µg/L       0.40932      0.3625 ppb        0.40932 112.92%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               66.0      0.4094 µg/L       0.13019      0.4094 ppb        0.13019  31.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 124 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/30/2010 21:37:49**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155735.7	155735.7	105	%			21:38:23
1	Al 396.153Radial†	26455.5	25175.3	5164.1	µg/L	5164.1	ppb	21:38:23
1	Ca 317.933Radial†	89784.1	84528.3	5085.9	µg/L	5085.9	ppb	21:38:23
1	Fe 238.204 Radial†	79588.2	75407.3	5074.1	µg/L	5074.1	ppb	21:38:23
1	K 766.490 Radial†	14482.6	12434.6	5113.4	µg/L	5113.4	ppb	21:38:23
1	Mg 279.077 IEC†	13566.6	12709.1	5221.7	µg/L	5221.7	ppb	21:38:23
1	Na 589.592 Radial†	71159.0	66340.0	10069	µg/L	10069	ppb	21:38:23
1	Sr 421.552†	233554.7	221920.1	511.90	µg/L	511.90	ppb	21:38:21
1	Sc 361.383	1774505.8	1774505.8	101.11	%			21:38:36
1	Y 371.029	1058192.5	1058192.5	99.450	%			21:38:36
1	Ag 328.068†	130627.3	125750.0	506.13	µg/L	506.13	ppb	21:38:36
1	As 188.979†	1530.1	1531.1	541.56	µg/L	541.56	ppb	21:38:56
1	B 249.677†	34306.6	30700.6	498.78	µg/L	498.78	ppb	21:38:36
1	Ba 233.527†	117582.7	116457.5	507.49	µg/L	507.49	ppb	21:38:36
1	Be 313.107†	1725175.2	1707072.4	512.44	µg/L	512.44	ppb	21:38:36
1	Cd 226.502†	74496.9	73791.3	506.36	µg/L	506.36	ppb	21:38:36
1	Co 228.616†	37908.7	37666.1	509.70	µg/L	509.70	ppb	21:38:36
1	Cr 267.716†	60512.5	59671.4	502.67	µg/L	502.67	ppb	21:38:36
1	Cu 324.752†	123549.7	119408.0	504.71	µg/L	504.71	ppb	21:38:36
1	Mn 257.610†	383802.8	379425.1	506.93	µg/L	506.93	ppb	21:38:36
1	Mo 202.031†	16253.5	16110.3	512.92	µg/L	512.92	ppb	21:38:56
1	Ni 231.604†	40678.4	40310.9	507.02	µg/L	507.02	ppb	21:38:36
1	P 214.914†	10958.5	10833.5	2575.4	µg/L	2575.4	ppb	21:38:56
1	Pb 220.353†	8590.9	8399.9	515.97	µg/L	515.97	ppb	21:38:56
1	S 181.975 Axial†	1363.8	1261.2	1038.1	µg/L	1038.1	ppb	21:38:56
1	Sb 206.836†	4031.9	3909.6	513.95	µg/L	513.95	ppb	21:38:56
1	Se 196.026†	1318.0	1290.0	519	µg/L	519	ppb	21:38:56
1	SiO2†	52866.2	50534.2	5384.3	µg/L	5384.3	ppb	21:38:36
1	Si 251.611†	159054.7	156364.6	2520.7	µg/L	2520.7	ppb	21:38:36
1	Sn 189.927†	7536.9	7456.9	517.95	µg/L	517.95	ppb	21:38:56
1	Ti 334.940†	510712.3	504235.1	504.52	µg/L	504.52	ppb	21:38:36
1	Tl 190.801†	3764.0	3839.8	523.61	µg/L	523.61	ppb	21:38:56
1	U 409.014†	6927.0	7135.0	477.59	µg/L	477.59	ppb	21:38:36
1	V 292.402†	95996.0	94635.1	509.20	µg/L	509.20	ppb	21:38:36
1	Zn 213.857†	83459.4	82021.0	504.72	µg/L	504.72	ppb	21:38:36
2	Sc RADIAL	155041.9	155041.9	105	%			21:38:27
2	Al 396.153Radial†	26439.8	25272.8	5184.4	µg/L	5184.4	ppb	21:38:27
2	Ca 317.933Radial†	89541.1	84677.9	5094.9	µg/L	5094.9	ppb	21:38:27
2	Fe 238.204 Radial†	79278.2	75449.7	5076.9	µg/L	5076.9	ppb	21:38:27
2	K 766.490 Radial†	14371.1	12389.8	5095.0	µg/L	5095.0	ppb	21:38:27
2	Mg 279.077 IEC†	13629.4	12826.7	5269.8	µg/L	5269.8	ppb	21:38:27
2	Na 589.592 Radial†	70921.4	66415.8	10081	µg/L	10081	ppb	21:38:27
2	Sr 421.552†	231205.0	220671.8	509.02	µg/L	509.02	ppb	21:38:25
2	Sc 361.383	1782336.8	1782336.8	101.55	%			21:38:59
2	Y 371.029	1062229.9	1062229.9	99.829	%			21:38:59
2	Ag 328.068†	131409.1	125952.2	506.96	µg/L	506.96	ppb	21:38:59
2	As 188.979†	1515.6	1510.1	534.25	µg/L	534.25	ppb	21:39:19
2	B 249.677†	34746.5	30984.7	503.41	µg/L	503.41	ppb	21:38:59
2	Ba 233.527†	118240.5	116594.2	508.08	µg/L	508.08	ppb	21:38:59
2	Be 313.107†	1734884.9	1709136.7	513.07	µg/L	513.07	ppb	21:38:59
2	Cd 226.502†	74952.3	73916.0	507.21	µg/L	507.21	ppb	21:38:59
2	Co 228.616†	38256.0	37843.3	512.09	µg/L	512.09	ppb	21:38:59
2	Cr 267.716†	60885.4	59775.6	503.53	µg/L	503.53	ppb	21:38:59
2	Cu 324.752†	123997.9	119312.5	504.33	µg/L	504.33	ppb	21:38:59
2	Mn 257.610†	385847.6	379770.8	507.39	µg/L	507.39	ppb	21:38:59
2	Mo 202.031†	16207.6	15994.5	509.23	µg/L	509.23	ppb	21:39:19
2	Ni 231.604†	40972.6	40423.8	508.44	µg/L	508.44	ppb	21:38:59
2	P 214.914†	10934.2	10762.0	2558.4	µg/L	2558.4	ppb	21:39:19
2	Pb 220.353†	8605.8	8377.2	514.57	µg/L	514.57	ppb	21:39:19

2	S 181.975 Axial†	1353.8	1245.4	1025.2 µg/L	1025.2 ppb	21:39:19
2	Sb 206.836†	4039.9	3900.0	512.61 µg/L	512.61 ppb	21:39:19
2	Se 196.026†	1294.9	1261.6	507 µg/L	507 ppb	21:39:19
2	SiO2†	53037.1	50472.8	5377.9 µg/L	5377.9 ppb	21:38:59
2	Si 251.611†	159953.2	156558.2	2523.9 µg/L	2523.9 ppb	21:38:59
2	Sn 189.927†	7521.9	7409.4	514.67 µg/L	514.67 ppb	21:39:19
2	Ti 334.940†	513507.3	504768.0	505.04 µg/L	505.04 ppb	21:38:59
2	Tl 190.801†	3788.2	3847.3	524.61 µg/L	524.61 ppb	21:39:19
2	U 409.014†	7265.3	7438.0	496.58 µg/L	496.58 ppb	21:38:59
2	V 292.402†	96459.1	94674.0	509.39 µg/L	509.39 ppb	21:38:59
2	Zn 213.857†	83907.6	82099.7	505.20 µg/L	505.20 ppb	21:38:59
3	Sc RADIAL	154159.8	154159.8	104 %		21:38:31
3	Al 396.153Radial†	26383.6	25363.1	5203.0 µg/L	5203.0 ppb	21:38:31
3	Ca 317.933Radial†	88957.8	84607.2	5090.6 µg/L	5090.6 ppb	21:38:31
3	Fe 238.204 Radial†	79038.6	75652.5	5090.6 µg/L	5090.6 ppb	21:38:31
3	K 766.490 Radial†	14471.9	12564.8	5167.0 µg/L	5167.0 ppb	21:38:31
3	Mg 279.077 IEC†	13429.6	12709.4	5221.7 µg/L	5221.7 ppb	21:38:31
3	Na 589.592 Radial†	70531.1	66428.3	10082 µg/L	10082 ppb	21:38:31
3	Sr 421.552†	234744.2	225327.0	519.76 µg/L	519.76 ppb	21:38:29
3	Sc 361.383	1781093.9	1781093.9	101.48 %		21:39:22
3	Y 371.029	1062049.8	1062049.8	99.813 %		21:39:22
3	Ag 328.068†	131409.2	126042.6	507.32 µg/L	507.32 ppb	21:39:22
3	As 188.979†	1511.6	1507.2	533.24 µg/L	533.24 ppb	21:39:42
3	B 249.677†	34741.3	31003.5	503.72 µg/L	503.72 ppb	21:39:22
3	Ba 233.527†	117890.9	116331.0	506.94 µg/L	506.94 ppb	21:39:22
3	Be 313.107†	1732769.0	1708243.9	512.80 µg/L	512.80 ppb	21:39:22
3	Cd 226.502†	74929.0	73944.5	507.41 µg/L	507.41 ppb	21:39:22
3	Co 228.616†	38060.0	37676.5	509.84 µg/L	509.84 ppb	21:39:22
3	Cr 267.716†	60819.3	59752.4	503.33 µg/L	503.33 ppb	21:39:22
3	Cu 324.752†	124074.4	119473.1	505.01 µg/L	505.01 ppb	21:39:22
3	Mn 257.610†	385191.5	379389.4	506.88 µg/L	506.88 ppb	21:39:22
3	Mo 202.031†	16174.4	15972.9	508.55 µg/L	508.55 ppb	21:39:42
3	Ni 231.604†	40856.7	40337.8	507.36 µg/L	507.36 ppb	21:39:22
3	P 214.914†	10914.7	10750.3	2555.5 µg/L	2555.5 ppb	21:39:42
3	Pb 220.353†	8564.4	8342.3	512.42 µg/L	512.42 ppb	21:39:42
3	S 181.975 Axial†	1337.8	1230.6	1013.0 µg/L	1013.0 ppb	21:39:42
3	Sb 206.836†	4017.7	3880.9	510.10 µg/L	510.10 ppb	21:39:42
3	Se 196.026†	1323.8	1290.9	519 µg/L	519 ppb	21:39:42
3	SiO2†	53114.6	50585.6	5390.0 µg/L	5390.0 ppb	21:39:22
3	Si 251.611†	160007.2	156721.3	2526.6 µg/L	2526.6 ppb	21:39:22
3	Sn 189.927†	7519.2	7411.9	514.84 µg/L	514.84 ppb	21:39:42
3	Ti 334.940†	512393.0	504022.8	504.29 µg/L	504.29 ppb	21:39:22
3	Tl 190.801†	3733.3	3795.8	517.69 µg/L	517.69 ppb	21:39:42
3	U 409.014†	7355.4	7531.7	502.41 µg/L	502.41 ppb	21:39:22
3	V 292.402†	96255.9	94540.0	508.67 µg/L	508.67 ppb	21:39:22
3	Zn 213.857†	83891.6	82141.6	505.47 µg/L	505.47 ppb	21:39:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779312.2	101.38	%	0.240				0.24%
Sc RADIAL	154979.1	105	%	0.5				0.51%
Y 371.029	1060824.1	99.697	%	0.2144				0.22%
Ag 328.068†	125914.9	506.80	µg/L	0.609	506.80	ppb	0.609	0.12%
QC value within limits for Ag 328.068 Recovery = 101.36%								
Al 396.153Radial†	25270.4	5183.8	µg/L	19.45	5183.8	ppb	19.45	0.38%
QC value within limits for Al 396.153Radial Recovery = 103.68%								
As 188.979†	1516.1	536.35	µg/L	4.542	536.35	ppb	4.542	0.85%
QC value within limits for As 188.979 Recovery = 107.27%								
B 249.677†	30896.3	501.97	µg/L	2.765	501.97	ppb	2.765	0.55%
QC value within limits for B 249.677 Recovery = 100.39%								
Ba 233.527†	116460.9	507.50	µg/L	0.574	507.50	ppb	0.574	0.11%
QC value within limits for Ba 233.527 Recovery = 101.50%								
Be 313.107†	1708151.0	512.77	µg/L	0.314	512.77	ppb	0.314	0.06%
QC value within limits for Be 313.107 Recovery = 102.55%								
Ca 317.933Radial†	84604.5	5090.4	µg/L	4.50	5090.4	ppb	4.50	0.09%
QC value within limits for Ca 317.933Radial Recovery = 101.81%								
Cd 226.502†	73883.9	506.99	µg/L	0.559	506.99	ppb	0.559	0.11%
QC value within limits for Cd 226.502 Recovery = 101.40%								
Co 228.616†	37728.6	510.54	µg/L	1.345	510.54	ppb	1.345	0.26%

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   QC value within limits for Co 228.616  Recovery = 102.11%
Cr 267.716†            59733.1      503.18 µg/L        0.451      503.18 ppb          0.451   0.09%
   QC value within limits for Cr 267.716  Recovery = 100.64%
Cu 324.752†           119397.9      504.68 µg/L        0.341      504.68 ppb          0.341   0.07%
   QC value within limits for Cu 324.752  Recovery = 100.94%
Fe 238.204 Radial†     75503.2      5080.5 µg/L         8.82      5080.5 ppb           8.82   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.61%
K 766.490 Radial†      12463.1      5125.2 µg/L        37.42      5125.2 ppb          37.42   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 102.50%
Mg 279.077 IEC†        12748.4      5237.7 µg/L        27.78      5237.7 ppb          27.78   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.75%
Mn 257.610†           379528.4      507.06 µg/L        0.280      507.06 ppb          0.280   0.06%
   QC value within limits for Mn 257.610  Recovery = 101.41%
Mo 202.031†            16025.9      510.23 µg/L        2.350      510.23 ppb          2.350   0.46%
   QC value within limits for Mo 202.031  Recovery = 102.05%
Na 589.592 Radial†     66394.7       10077 µg/L          7.2       10077 ppb            7.2   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 100.77%
Ni 231.604†            40357.5      507.61 µg/L        0.742      507.61 ppb          0.742   0.15%
   QC value within limits for Ni 231.604  Recovery = 101.52%
P 214.914†             10781.9      2563.1 µg/L        10.74      2563.1 ppb          10.74   0.42%
   QC value within limits for P 214.914  Recovery = 102.52%
Pb 220.353†             8373.1      514.32 µg/L        1.790      514.32 ppb          1.790   0.35%
   QC value within limits for Pb 220.353  Recovery = 102.86%
S 181.975 Axial†        1245.7      1025.4 µg/L        12.55      1025.4 ppb          12.55   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 102.54%
Sb 206.836†             3896.8      512.22 µg/L        1.954      512.22 ppb          1.954   0.38%
   QC value within limits for Sb 206.836  Recovery = 102.44%
Se 196.026†             1280.8         515 µg/L          6.7         515 ppb            6.7   1.30%
   QC value within limits for Se 196.026  Recovery = 102.98%
SiO2†                  50530.9      5384.1 µg/L        6.05      5384.1 ppb          6.05   0.11%
   QC value within limits for SiO2  Recovery = 100.68%
Si 251.611†           156548.1      2523.7 µg/L        2.93      2523.7 ppb          2.93   0.12%
   QC value within limits for Si 251.611  Recovery = 100.95%
Sn 189.927†             7426.1      515.82 µg/L        1.848      515.82 ppb          1.848   0.36%
   QC value within limits for Sn 189.927  Recovery = 103.16%
Sr 421.552†           222639.6      513.56 µg/L        5.558      513.56 ppb          5.558   1.08%
   QC value within limits for Sr 421.552  Recovery = 102.71%
Ti 334.940†           504342.0      504.62 µg/L        0.382      504.62 ppb          0.382   0.08%
   QC value within limits for Ti 334.940  Recovery = 100.92%
Tl 190.801†             3827.7      521.97 µg/L        3.742      521.97 ppb          3.742   0.72%
   QC value within limits for Tl 190.801  Recovery = 104.39%
U 409.014†              7368.2      492.19 µg/L       12.978      492.19 ppb         12.978   2.64%
   QC value within limits for U 409.014  Recovery = 98.44%
V 292.402†             94616.4      509.09 µg/L        0.372      509.09 ppb          0.372   0.07%
   QC value within limits for V 292.402  Recovery = 101.82%
Zn 213.857†            82087.5      505.13 µg/L        0.377      505.13 ppb          0.377   0.07%
   QC value within limits for Zn 213.857  Recovery = 101.03%
All analyte(s) passed QC.
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Sequence No.: 125
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 21:39:51
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	156639.7	156639.7	106	%			21:40:20
1	Al 396.153Radial†	-58.5	7.7	1.5743	µg/L	1.5743	ppb	21:40:40
1	Ca 317.933Radial†	759.4	18.7	1.1262	µg/L	1.1262	ppb	21:40:40
1	Fe 238.204 Radial†	194.7	43.1	2.8986	µg/L	2.8986	ppb	21:40:40
1	K 766.490 Radial†	1490.5	93.8	38.618	µg/L	38.618	ppb	21:40:20
1	Mg 279.077 IEC†	190.8	11.2	4.6159	µg/L	4.6159	ppb	21:40:40
1	Na 589.592 Radial†	1311.9	31.5	4.7498	µg/L	4.7498	ppb	21:40:20
1	Sr 421.552†	-198.8	34.0	0.0784	µg/L	0.0784	ppb	21:40:20
1	Sc 361.383	1802513.8	1802513.8	102.70	%			21:41:28
1	Y 371.029	1087508.1	1087508.1	102.21	%			21:41:28
1	Ag 328.068†	3555.0	14.3	0.0735	µg/L	0.0735	ppb	21:41:30
1	As 188.979†	-17.5	0.6	0.2149	µg/L	0.2149	ppb	21:41:50
1	B 249.677†	3344.4	26.0	0.4240	µg/L	0.4240	ppb	21:41:50
1	Ba 233.527†	-131.2	34.4	0.1496	µg/L	0.1496	ppb	21:41:50
1	Be 313.107†	-1013.8	-201.5	-0.0559	µg/L	-0.0559	ppb	21:41:30
1	Cd 226.502†	-76.9	35.2	0.2413	µg/L	0.2413	ppb	21:41:50
1	Co 228.616†	-176.5	0.6	0.0084	µg/L	0.0084	ppb	21:41:50
1	Cr 267.716†	162.0	-20.8	-0.1878	µg/L	-0.1878	ppb	21:41:50
1	Cu 324.752†	2902.6	37.3	0.1702	µg/L	0.1702	ppb	21:41:30
1	Mn 257.610†	251.1	68.9	0.0920	µg/L	0.0920	ppb	21:41:50
1	Mo 202.031†	-30.4	5.2	0.1640	µg/L	0.1640	ppb	21:41:50
1	Ni 231.604†	-85.9	-5.7	-0.0718	µg/L	-0.0718	ppb	21:41:50
1	P 214.914†	8.1	2.9	0.6926	µg/L	0.6926	ppb	21:41:50
1	Pb 220.353†	80.9	-18.2	-1.1250	µg/L	-1.1250	ppb	21:41:50
1	S 181.975 Axial†	99.3	9.0	7.3721	µg/L	7.3721	ppb	21:41:50
1	Sb 206.836†	74.8	-5.2	-0.6785	µg/L	-0.6785	ppb	21:41:50
1	Se 196.026†	11.2	-2.7	-1.06	µg/L	-1.06	ppb	21:41:50
1	SiO2†	1816.5	15.5	1.6465	µg/L	1.6465	ppb	21:41:50
1	Si 251.611†	956.9	-16.9	-0.2814	µg/L	-0.2814	ppb	21:41:30
1	Sn 189.927†	10.0	12.3	0.8523	µg/L	0.8523	ppb	21:41:50
1	Ti 334.940†	1083.5	169.4	0.1631	µg/L	0.1631	ppb	21:41:30
1	Tl 190.801†	-120.6	-0.3	-0.0456	µg/L	-0.0456	ppb	21:41:50
1	U 409.014†	-40.8	244.0	15.274	µg/L	15.274	ppb	21:41:30
1	V 292.402†	284.0	-33.3	-0.1660	µg/L	-0.1660	ppb	21:41:30
1	Zn 213.857†	618.4	77.6	0.4813	µg/L	0.4813	ppb	21:41:50
2	Sc RADIAL	154442.3	154442.3	104	%			21:40:42
2	Al 396.153Radial†	-52.6	12.5	2.5703	µg/L	2.5703	ppb	21:41:02
2	Ca 317.933Radial†	769.8	38.8	2.3356	µg/L	2.3356	ppb	21:41:02
2	Fe 238.204 Radial†	179.2	30.9	2.0764	µg/L	2.0764	ppb	21:41:02
2	K 766.490 Radial†	1688.5	303.4	124.87	µg/L	124.87	ppb	21:40:42
2	Mg 279.077 IEC†	185.5	8.8	3.6051	µg/L	3.6051	ppb	21:41:02
2	Na 589.592 Radial†	1499.9	229.0	34.668	µg/L	34.668	ppb	21:40:42
2	Sr 421.552†	-72.3	152.5	0.3517	µg/L	0.3517	ppb	21:40:42
2	Sc 361.383	1820695.7	1820695.7	103.74	%			21:41:52
2	Y 371.029	1097572.0	1097572.0	103.15	%			21:41:52
2	Ag 328.068†	3794.3	210.4	0.8494	µg/L	0.8494	ppb	21:41:54
2	As 188.979†	-9.3	8.7	3.0329	µg/L	3.0329	ppb	21:42:15
2	B 249.677†	3355.0	3.7	0.0606	µg/L	0.0606	ppb	21:42:15
2	Ba 233.527†	-140.4	26.8	0.1170	µg/L	0.1170	ppb	21:42:15
2	Be 313.107†	-980.0	-159.1	-0.0454	µg/L	-0.0454	ppb	21:41:54
2	Cd 226.502†	-107.8	6.1	0.0414	µg/L	0.0414	ppb	21:42:15
2	Co 228.616†	-176.7	2.1	0.0288	µg/L	0.0288	ppb	21:42:15
2	Cr 267.716†	181.7	-3.4	-0.0350	µg/L	-0.0350	ppb	21:42:15
2	Cu 324.752†	2791.5	-98.1	-0.4063	µg/L	-0.4063	ppb	21:41:54
2	Mn 257.610†	250.8	66.2	0.0883	µg/L	0.0883	ppb	21:42:15
2	Mo 202.031†	-27.8	7.9	0.2520	µg/L	0.2520	ppb	21:42:15
2	Ni 231.604†	-83.9	-3.0	-0.0373	µg/L	-0.0373	ppb	21:42:15
2	P 214.914†	-20.6	-24.9	-5.9289	µg/L	-5.9289	ppb	21:42:15
2	Pb 220.353†	110.2	9.3	0.5644	µg/L	0.5644	ppb	21:42:15

2	S 181.975 Axial†	95.9	4.8	3.9289 µg/L	3.9289 ppb	21:42:15
2	Sb 206.836†	84.9	3.7	0.4967 µg/L	0.4967 ppb	21:42:15
2	Se 196.026†	21.6	7.2	2.89 µg/L	2.89 ppb	21:42:15
2	SiO2†	1786.9	-30.6	-3.2933 µg/L	-3.2933 ppb	21:42:15
2	Si 251.611†	920.4	-61.4	-1.0032 µg/L	-1.0032 ppb	21:41:54
2	Sn 189.927†	9.7	11.9	0.8219 µg/L	0.8219 ppb	21:42:15
2	Ti 334.940†	1029.8	107.2	0.1039 µg/L	0.1039 ppb	21:41:54
2	Tl 190.801†	-110.9	10.2	1.3683 µg/L	1.3683 ppb	21:42:15
2	U 409.014†	-164.2	125.5	7.8759 µg/L	7.8759 ppb	21:41:54
2	V 292.402†	377.1	53.7	0.2925 µg/L	0.2925 ppb	21:41:54
2	Zn 213.857†	598.4	52.3	0.3246 µg/L	0.3246 ppb	21:42:15
3	Sc RADIAL	153682.3	153682.3	104 %		21:41:04
3	Al 396.153Radial†	-46.3	18.3	3.7304 µg/L	3.7304 ppb	21:41:24
3	Ca 317.933Radial†	784.4	56.6	3.4031 µg/L	3.4031 ppb	21:41:24
3	Fe 238.204 Radial†	185.0	37.2	2.5062 µg/L	2.5062 ppb	21:41:24
3	K 766.490 Radial†	1677.2	300.5	123.67 µg/L	123.67 ppb	21:41:04
3	Mg 279.077 IEC†	179.8	4.2	1.7326 µg/L	1.7326 ppb	21:41:24
3	Na 589.592 Radial†	1394.0	134.3	20.284 µg/L	20.284 ppb	21:41:04
3	Sr 421.552†	-217.5	12.4	0.0286 µg/L	0.0286 ppb	21:41:04
3	Sc 361.383	1802159.9	1802159.9	102.68 %		21:42:17
3	Y 371.029	1086924.1	1086924.1	102.15 %		21:42:17
3	Ag 328.068†	3659.8	117.1	0.4739 µg/L	0.4739 ppb	21:42:19
3	As 188.979†	-13.8	4.2	1.4795 µg/L	1.4795 ppb	21:42:39
3	B 249.677†	3323.9	6.7	0.1078 µg/L	0.1078 ppb	21:42:39
3	Ba 233.527†	-184.0	-17.1	-0.0741 µg/L	-0.0741 ppb	21:42:39
3	Be 313.107†	-772.4	33.4	0.0119 µg/L	0.0119 ppb	21:42:19
3	Cd 226.502†	-83.4	28.8	0.1976 µg/L	0.1976 ppb	21:42:39
3	Co 228.616†	-141.3	34.9	0.4711 µg/L	0.4711 ppb	21:42:39
3	Cr 267.716†	153.9	-28.7	-0.2464 µg/L	-0.2464 ppb	21:42:39
3	Cu 324.752†	2875.3	11.3	0.0532 µg/L	0.0532 ppb	21:42:19
3	Mn 257.610†	229.4	47.8	0.0638 µg/L	0.0638 ppb	21:42:39
3	Mo 202.031†	-8.4	26.5	0.8446 µg/L	0.8446 ppb	21:42:39
3	Ni 231.604†	-73.6	6.2	0.0781 µg/L	0.0781 ppb	21:42:39
3	P 214.914†	-10.6	-15.3	-3.6491 µg/L	-3.6491 ppb	21:42:39
3	Pb 220.353†	101.2	1.6	0.0954 µg/L	0.0954 ppb	21:42:39
3	S 181.975 Axial†	89.8	-0.3	-0.2028 µg/L	-0.2028 ppb	21:42:39
3	Sb 206.836†	70.2	-9.8	-1.2620 µg/L	-1.2620 ppb	21:42:39
3	Se 196.026†	7.0	-6.7	-2.68 µg/L	-2.68 ppb	21:42:39
3	SiO2†	1769.9	-29.5	-3.1976 µg/L	-3.1976 ppb	21:42:39
3	Si 251.611†	828.7	-141.6	-2.3098 µg/L	-2.3098 ppb	21:42:19
3	Sn 189.927†	11.8	14.0	0.9698 µg/L	0.9698 ppb	21:42:39
3	Ti 334.940†	874.2	-34.2	-0.0367 µg/L	-0.0367 ppb	21:42:19
3	Tl 190.801†	-111.1	8.9	1.1939 µg/L	1.1939 ppb	21:42:39
3	U 409.014†	-191.5	97.3	6.0989 µg/L	6.0989 ppb	21:42:19
3	V 292.402†	334.2	15.6	0.0944 µg/L	0.0944 ppb	21:42:19
3	Zn 213.857†	588.3	48.4	0.2995 µg/L	0.2995 ppb	21:42:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1808456.5	103.04	%	0.604				0.59%
Sc RADIAL	154921.4	105	%	1.0				0.99%
Y 371.029	1090668.1	102.50	%	0.563				0.55%
Ag 328.068†	113.9	0.4656	µg/L	0.38802	0.4656	ppb	0.38802	83.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.8	2.6250	µg/L	1.07912	2.6250	ppb	1.07912	41.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.5	1.5757	µg/L	1.41147	1.5757	ppb	1.41147	89.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	12.1	0.1975	µg/L	0.19759	0.1975	ppb	0.19759	100.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.7	0.0642	µg/L	0.12083	0.0642	ppb	0.12083	188.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-109.1	-0.0298	µg/L	0.03646	-0.0298	ppb	0.03646	122.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	38.0	2.2883	µg/L	1.13918	2.2883	ppb	1.13918	49.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.4	0.1601	µg/L	0.10506	0.1601	ppb	0.10506	65.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.5	0.1694	µg/L	0.26142	0.1694	ppb	0.26142	154.29%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.7     -0.1564 µg/L       0.10911     -0.1564 ppb        0.10911  69.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -16.5     -0.0610 µg/L       0.30473     -0.0610 ppb        0.30473 499.81%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        37.1      2.4938 µg/L       0.41124      2.4938 ppb        0.41124  16.49%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        232.6     95.721 µg/L       49.4567     95.721 ppb        49.4567  51.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           8.1      3.3179 µg/L       1.46292      3.3179 ppb        1.46292  44.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              61.0      0.0814 µg/L       0.01529      0.0814 ppb        0.01529  18.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.2      0.4202 µg/L       0.37018      0.4202 ppb        0.37018  88.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       131.6     19.901 µg/L       14.9630     19.901 ppb        14.9630  75.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -0.8     -0.0103 µg/L       0.07850     -0.0103 ppb        0.07850 759.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.4     -2.9618 µg/L       3.36384     -2.9618 ppb        3.36384 113.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.4     -0.1551 µg/L       0.87212     -0.1551 ppb        0.87212 562.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.5      3.6994 µg/L       3.79266      3.6994 ppb        3.79266 102.52%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.7     -0.4813 µg/L       0.89576     -0.4813 ppb        0.89576 186.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.7      -0.283 µg/L        2.8667      -0.283 ppb         2.8667 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -14.9     -1.6148 µg/L       2.82478     -1.6148 ppb        2.82478 174.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -73.3     -1.1981 µg/L       1.02817     -1.1981 ppb        1.02817  85.81%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               12.7      0.8813 µg/L       0.07810      0.8813 ppb        0.07810   8.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               66.3      0.1529 µg/L       0.17395      0.1529 ppb        0.17395 113.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               80.8      0.0768 µg/L       0.10266      0.0768 ppb        0.10266 133.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.8389 µg/L       0.77090      0.8389 ppb        0.77090  91.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               155.6      9.7495 µg/L       4.86586      9.7495 ppb        4.86586  49.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                12.0      0.0736 µg/L       0.22999      0.0736 ppb        0.22999 312.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               59.4      0.3685 µg/L       0.09853      0.3685 ppb        0.09853  26.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 126
Sample ID: 1202065045|962575|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 3/30/2010 21:42:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065045|962575|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155504.4	155504.4	105	%			21:43:20
1	Al 396.153Radial†	-27.0	37.2	7.6611	µg/L	7.6611	ppb	21:43:40
1	Ca 317.933Radial†	910.1	167.2	10.059	µg/L	10.059	ppb	21:43:40
1	Fe 238.204 Radial†	926.1	739.7	49.774	µg/L	49.774	ppb	21:43:40
1	K 766.490 Radial†	1667.9	272.7	112.24	µg/L	112.24	ppb	21:43:20
1	Mg 279.077 IEC†	190.9	12.6	5.1458	µg/L	5.1458	ppb	21:43:40
1	Na 589.592 Radial†	1548.7	265.7	40.240	µg/L	40.240	ppb	21:43:20
1	Sr 421.552†	-118.1	109.3	0.2522	µg/L	0.2522	ppb	21:43:20
1	Sc 361.383	1775389.4	1775389.4	101.16	%			21:44:28
1	Y 371.029	1067330.3	1067330.3	100.31	%			21:44:28
1	Ag 328.068†	3835.0	344.0	1.3590	µg/L	1.3590	ppb	21:44:30
1	As 188.979†	-12.4	5.4	1.8987	µg/L	1.8987	ppb	21:44:50
1	B 249.677†	3414.3	144.9	2.3613	µg/L	2.3613	ppb	21:44:50
1	Ba 233.527†	-122.9	40.7	0.1770	µg/L	0.1770	ppb	21:44:50
1	Be 313.107†	-600.4	192.1	0.0538	µg/L	0.0538	ppb	21:44:30
1	Cd 226.502†	-79.7	31.2	0.2095	µg/L	0.2095	ppb	21:44:50
1	Co 228.616†	-158.2	16.0	0.2144	µg/L	0.2144	ppb	21:44:50
1	Cr 267.716†	327.4	145.1	1.2345	µg/L	1.2345	ppb	21:44:50
1	Cu 324.752†	2814.7	-6.5	-0.0303	µg/L	-0.0303	ppb	21:44:30
1	Mn 257.610†	868.7	683.2	0.9128	µg/L	0.9128	ppb	21:44:50
1	Mo 202.031†	-35.2	-0.0	0.0019	µg/L	0.0019	ppb	21:44:50
1	Ni 231.604†	-26.0	52.2	0.6569	µg/L	0.6569	ppb	21:44:50
1	P 214.914†	-0.2	-5.2	-1.2550	µg/L	-1.2550	ppb	21:44:50
1	Pb 220.353†	73.9	-24.0	-1.4578	µg/L	-1.4578	ppb	21:44:50
1	S 181.975 Axial†	104.3	15.4	12.604	µg/L	12.604	ppb	21:44:50
1	Sb 206.836†	82.8	3.8	0.4802	µg/L	0.4802	ppb	21:44:50
1	Se 196.026†	18.2	4.4	1.77	µg/L	1.77	ppb	21:44:50
1	SiO2†	2336.8	556.9	59.571	µg/L	59.571	ppb	21:44:50
1	Si 251.611†	2591.9	1613.6	26.112	µg/L	26.112	ppb	21:44:30
1	Sn 189.927†	11.6	14.0	0.9706	µg/L	0.9706	ppb	21:44:50
1	Ti 334.940†	1254.6	354.6	0.3600	µg/L	0.3600	ppb	21:44:30
1	Tl 190.801†	-108.8	9.5	1.2879	µg/L	1.2879	ppb	21:44:50
1	U 409.014†	-493.9	-204.5	-12.779	µg/L	-12.779	ppb	21:44:30
1	V 292.402†	442.9	128.0	0.6704	µg/L	0.6704	ppb	21:44:30
1	Zn 213.857†	854.7	320.4	1.9778	µg/L	1.9778	ppb	21:44:50
2	Sc RADIAL	153097.6	153097.6	104	%			21:43:42
2	Al 396.153Radial†	-22.5	41.2	8.4892	µg/L	8.4892	ppb	21:44:02
2	Ca 317.933Radial†	922.9	193.2	11.624	µg/L	11.624	ppb	21:44:02
2	Fe 238.204 Radial†	917.8	745.5	50.162	µg/L	50.162	ppb	21:44:02
2	K 766.490 Radial†	1593.5	225.8	92.928	µg/L	92.928	ppb	21:43:42
2	Mg 279.077 IEC†	189.7	14.4	5.8747	µg/L	5.8747	ppb	21:44:02
2	Na 589.592 Radial†	1487.4	229.6	34.784	µg/L	34.784	ppb	21:43:42
2	Sr 421.552†	-207.6	21.2	0.0487	µg/L	0.0487	ppb	21:43:42
2	Sc 361.383	1778838.1	1778838.1	101.35	%			21:44:52
2	Y 371.029	1069781.8	1069781.8	100.54	%			21:44:52
2	Ag 328.068†	3744.4	247.3	0.9880	µg/L	0.9880	ppb	21:44:54
2	As 188.979†	-13.0	4.9	1.7304	µg/L	1.7304	ppb	21:45:14
2	B 249.677†	3361.2	85.9	1.4013	µg/L	1.4013	ppb	21:45:14
2	Ba 233.527†	-118.3	45.5	0.1976	µg/L	0.1976	ppb	21:45:14
2	Be 313.107†	-858.3	-61.2	-0.0183	µg/L	-0.0183	ppb	21:44:54
2	Cd 226.502†	-109.5	2.0	0.0087	µg/L	0.0087	ppb	21:45:14
2	Co 228.616†	-173.5	1.3	0.0153	µg/L	0.0153	ppb	21:45:14
2	Cr 267.716†	335.6	152.6	1.2869	µg/L	1.2869	ppb	21:45:14
2	Cu 324.752†	3084.3	254.1	1.0785	µg/L	1.0785	ppb	21:44:54
2	Mn 257.610†	872.7	685.5	0.9159	µg/L	0.9159	ppb	21:45:14
2	Mo 202.031†	-37.0	-1.7	-0.0528	µg/L	-0.0528	ppb	21:45:14
2	Ni 231.604†	-24.9	53.3	0.6708	µg/L	0.6708	ppb	21:45:14
2	P 214.914†	-4.2	-9.2	-2.2150	µg/L	-2.2150	ppb	21:45:14
2	Pb 220.353†	74.1	-23.9	-1.4630	µg/L	-1.4630	ppb	21:45:14

2	S 181.975 Axial†	102.2	13.1	10.736 µg/L	10.736 ppb	21:45:14
2	Sb 206.836†	71.3	-7.8	-1.0330 µg/L	-1.0330 ppb	21:45:14
2	Se 196.026†	-1.3	-14.8	-5.92 µg/L	-5.92 ppb	21:45:14
2	SiO2†	2321.1	537.0	57.421 µg/L	57.421 ppb	21:45:14
2	Si 251.611†	2643.8	1659.9	26.855 µg/L	26.855 ppb	21:44:54
2	Sn 189.927†	24.8	27.0	1.8687 µg/L	1.8687 ppb	21:45:14
2	Ti 334.940†	1208.1	306.4	0.3063 µg/L	0.3063 ppb	21:44:54
2	Tl 190.801†	-107.8	10.8	1.4556 µg/L	1.4556 ppb	21:45:14
2	U 409.014†	-284.4	3.1	0.2154 µg/L	0.2154 ppb	21:44:54
2	V 292.402†	400.4	85.2	0.4518 µg/L	0.4518 ppb	21:44:54
2	Zn 213.857†	816.0	280.5	1.7295 µg/L	1.7295 ppb	21:45:14
3	Sc RADIAL	153854.2	153854.2	104 %		21:44:04
3	Al 396.153Radial†	-43.4	21.1	4.3368 µg/L	4.3368 ppb	21:44:24
3	Ca 317.933Radial†	914.5	180.7	10.874 µg/L	10.874 ppb	21:44:24
3	Fe 238.204 Radial†	919.7	743.0	49.997 µg/L	49.997 ppb	21:44:24
3	K 766.490 Radial†	1802.8	419.4	172.60 µg/L	172.60 ppb	21:44:04
3	Mg 279.077 IEC†	174.0	-1.6	-0.6882 µg/L	-0.6882 ppb	21:44:24
3	Na 589.592 Radial†	1374.9	114.4	17.218 µg/L	17.218 ppb	21:44:04
3	Sr 421.552†	-121.2	105.2	0.2427 µg/L	0.2427 ppb	21:44:04
3	Sc 361.383	1765733.4	1765733.4	100.61 %		21:45:16
3	Y 371.029	1062137.9	1062137.9	99.821 %		21:45:16
3	Ag 328.068†	3424.1	-43.7	-0.1740 µg/L	-0.1740 ppb	21:45:19
3	As 188.979†	-20.1	-2.3	-0.7720 µg/L	-0.7720 ppb	21:45:39
3	B 249.677†	3388.9	138.1	2.2517 µg/L	2.2517 ppb	21:45:39
3	Ba 233.527†	-134.3	28.6	0.1245 µg/L	0.1245 ppb	21:45:39
3	Be 313.107†	-886.2	-95.3	-0.0302 µg/L	-0.0302 ppb	21:45:19
3	Cd 226.502†	-97.2	13.4	0.0867 µg/L	0.0867 ppb	21:45:39
3	Co 228.616†	-188.2	-14.6	-0.2003 µg/L	-0.2003 ppb	21:45:39
3	Cr 267.716†	338.0	157.4	1.3324 µg/L	1.3324 ppb	21:45:39
3	Cu 324.752†	2867.7	61.5	0.2619 µg/L	0.2619 ppb	21:45:19
3	Mn 257.610†	856.6	675.8	0.9032 µg/L	0.9032 ppb	21:45:39
3	Mo 202.031†	-22.8	12.1	0.3863 µg/L	0.3863 ppb	21:45:39
3	Ni 231.604†	-44.7	33.5	0.4213 µg/L	0.4213 ppb	21:45:39
3	P 214.914†	4.2	-0.8	-0.2161 µg/L	-0.2161 ppb	21:45:39
3	Pb 220.353†	87.0	-10.5	-0.6401 µg/L	-0.6401 ppb	21:45:39
3	S 181.975 Axial†	85.6	-2.6	-2.1598 µg/L	-2.1598 ppb	21:45:39
3	Sb 206.836†	88.2	9.6	1.2517 µg/L	1.2517 ppb	21:45:39
3	Se 196.026†	6.1	-7.5	-3.01 µg/L	-3.01 ppb	21:45:39
3	SiO2†	2371.2	603.7	64.553 µg/L	64.553 ppb	21:45:39
3	Si 251.611†	2680.8	1716.0	27.758 µg/L	27.758 ppb	21:45:19
3	Sn 189.927†	23.0	25.4	1.7596 µg/L	1.7596 ppb	21:45:39
3	Ti 334.940†	1336.7	443.1	0.4459 µg/L	0.4459 ppb	21:45:19
3	Tl 190.801†	-109.0	8.8	1.1902 µg/L	1.1902 ppb	21:45:39
3	U 409.014†	-370.2	-84.2	-5.2473 µg/L	-5.2473 ppb	21:45:19
3	V 292.402†	419.8	107.4	0.5709 µg/L	0.5709 ppb	21:45:19
3	Zn 213.857†	873.5	343.7	2.1238 µg/L	2.1238 ppb	21:45:39

Mean Data: 1202065045|962575|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773320.3	101.04	%	0.387				0.38%
Sc RADIAL	154152.1	104	%	0.8				0.80%
Y 371.029	1066416.7	100.22	%	0.367				0.37%
Ag 328.068†	182.6	0.7243	µg/L	0.79976	0.7243	ppb	0.79976	110.42%
Al 396.153Radial†	33.2	6.8290	µg/L	2.19769	6.8290	ppb	2.19769	32.18%
As 188.979†	2.7	0.9524	µg/L	1.49568	0.9524	ppb	1.49568	157.05%
B 249.677†	123.0	2.0048	µg/L	0.52551	2.0048	ppb	0.52551	26.21%
Ba 233.527†	38.3	0.1664	µg/L	0.03768	0.1664	ppb	0.03768	22.65%
Be 313.107†	11.9	0.0018	µg/L	0.04544	0.0018	ppb	0.04544	>999.9%
Ca 317.933Radial†	180.4	10.853	µg/L	0.7826	10.853	ppb	0.7826	7.21%
Cd 226.502†	15.5	0.1016	µg/L	0.10123	0.1016	ppb	0.10123	99.62%
Co 228.616†	0.9	0.0098	µg/L	0.20736	0.0098	ppb	0.20736	>999.9%
Cr 267.716†	151.7	1.2846	µg/L	0.04896	1.2846	ppb	0.04896	3.81%
Cu 324.752†	103.1	0.4367	µg/L	0.57471	0.4367	ppb	0.57471	131.60%
Fe 238.204 Radial†	742.7	49.978	µg/L	0.1951	49.978	ppb	0.1951	0.39%
K 766.490 Radial†	306.0	125.92	µg/L	41.564	125.92	ppb	41.564	33.01%
Mg 279.077 IEC†	8.5	3.4441	µg/L	3.59720	3.4441	ppb	3.59720	104.45%
Mn 257.610†	681.5	0.9106	µg/L	0.00663	0.9106	ppb	0.00663	0.73%
Mo 202.031†	3.4	0.1118	µg/L	0.23928	0.1118	ppb	0.23928	214.04%
Na 589.592 Radial†	203.2	30.747	µg/L	12.0302	30.747	ppb	12.0302	39.13%

Ni 231.604†	46.4	0.5830	µg/L	0.14020	0.5830	ppb	0.14020 24.05%
P 214.914†	-5.0	-1.2287	µg/L	0.99967	-1.2287	ppb	0.99967 81.36%
Pb 220.353†	-19.5	-1.1870	µg/L	0.47360	-1.1870	ppb	0.47360 39.90%
S 181.975 Axial†	8.6	7.0599	µg/L	8.03900	7.0599	ppb	8.03900 113.87%
Sb 206.836†	1.9	0.2330	µg/L	1.16220	0.2330	ppb	1.16220 498.88%
Se 196.026†	-6.0	-2.39	µg/L	3.882	-2.39	ppb	3.882 162.69%
SiO2†	565.9	60.515	µg/L	3.6587	60.515	ppb	3.6587 6.05%
Si 251.611†	1663.1	26.908	µg/L	0.8246	26.908	ppb	0.8246 3.06%
Sn 189.927†	22.1	1.5329	µg/L	0.49007	1.5329	ppb	0.49007 31.97%
Sr 421.552†	78.6	0.1812	µg/L	0.11480	0.1812	ppb	0.11480 63.36%
Ti 334.940†	368.0	0.3707	µg/L	0.07043	0.3707	ppb	0.07043 19.00%
Tl 190.801†	9.7	1.3112	µg/L	0.13419	1.3112	ppb	0.13419 10.23%
U 409.014†	-95.2	-5.9368	µg/L	6.52438	-5.9368	ppb	6.52438 109.90%
V 292.402†	106.9	0.5644	µg/L	0.10946	0.5644	ppb	0.10946 19.39%
Zn 213.857†	314.9	1.9437	µg/L	0.19934	1.9437	ppb	0.19934 10.26%

Sequence No.: 127
Sample ID: 1202065046|962575|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 3/30/2010 21:45:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065046|962575|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	157055.5	157055.5	106	%			21:46:18
1	Al 396.153Radial†	471633.2	443991.7	91472	µg/L	91472	ppb	21:46:18
1	Ca 317.933Radial†	1778057.6	1672914.1	100660	µg/L	100660	ppb	21:46:16
1	Fe 238.204 Radial†	3017404.2	2840017.1	191100	µg/L	191100	ppb	21:46:16
1	K 766.490 Radial†	108902.2	101192.3	41603	µg/L	41603	ppb	21:46:18
1	Mg 279.077 IEC†	100663.1	94581.2	38647	µg/L	38647	ppb	21:46:18
1	Na 589.592 Radial†	72511.3	67045.3	10144	µg/L	10144	ppb	21:46:18
1	Sr 421.552†	1103550.9	1038948.5	2395.9	µg/L	2395.9	ppb	21:46:16
1	Sc 361.383	1782400.0	1782400.0	101.56	%			21:46:33
1	Y 371.029	1134957.3	1134957.3	106.66	%			21:46:33
1	Ag 328.068†	80193.7	75517.3	309.49	µg/L	309.49	ppb	21:46:33
1	As 188.979†	3146.3	3115.8	1153.2	µg/L	1153.2	ppb	21:46:35
1	B 249.677†	95142.9	90454.1	1471.6	µg/L	1471.6	ppb	21:46:33
1	Ba 233.527†	487153.5	479848.0	2087.8	µg/L	2087.8	ppb	21:46:33
1	Be 313.107†	2695490.9	2654956.9	796.69	µg/L	796.69	ppb	21:46:33
1	Cd 226.502†	90622.4	89343.3	593.97	µg/L	593.97	ppb	21:46:33
1	Co 228.616†	69346.1	68455.5	918.26	µg/L	918.26	ppb	21:46:33
1	Cr 267.716†	277636.6	273202.1	2307.6	µg/L	2307.6	ppb	21:46:33
1	Cu 324.752†	439607.7	430080.0	1841.5	µg/L	1841.5	ppb	21:46:33
1	Mn 257.610†	4166302.4	4102261.0	5481.1	µg/L	5481.1	ppb	21:46:33
1	Mo 202.031†	15403.9	15202.5	492.26	µg/L	492.26	ppb	21:46:35
1	Ni 231.604†	107181.0	105615.9	1328.4	µg/L	1328.4	ppb	21:46:33
1	P 214.914†	33647.1	33126.3	7776.1	µg/L	7776.1	ppb	21:46:35
1	Pb 220.353†	14035.0	13722.9	848.25	µg/L	848.25	ppb	21:46:35
1	S 181.975 Axial†	4757.9	4597.2	3772.6	µg/L	3772.6	ppb	21:46:35
1	Sb 206.836†	9079.1	8861.9	1135.2	µg/L	1135.2	ppb	21:46:35
1	Se 196.026†	7229.3	7104.9	2910	µg/L	2910	ppb	21:46:35
1	SiO2†	851943.3	837130.6	89531	µg/L	89531	ppb	21:46:33
1	Si 251.611†	2619813.9	2578705.7	41726	µg/L	41726	ppb	21:46:33
1	Sn 189.927†	15577.2	15341.0	1081.7	µg/L	1081.7	ppb	21:46:35
1	Ti 334.940†	5889494.3	5798327.8	5807.8	µg/L	5807.8	ppb	21:46:33
1	Tl 190.801†	8638.9	8623.5	1236.0	µg/L	1236.0	ppb	21:46:35
1	U 409.014†	-4657.6	-4302.4	-204.42	µg/L	-204.42	ppb	21:46:33
1	V 292.402†	237439.3	233489.7	1228.8	µg/L	1228.8	ppb	21:46:33
1	Zn 213.857†	958943.0	943718.7	5826.7	µg/L	5826.7	ppb	21:46:33
2	Sc RADIAL	154319.3	154319.3	104	%			21:46:23
2	Al 396.153Radial†	466733.4	447169.1	92126	µg/L	92126	ppb	21:46:23
2	Ca 317.933Radial†	1753400.8	1678968.3	101020	µg/L	101020	ppb	21:46:20
2	Fe 238.204 Radial†	2974945.1	2849701.1	191750	µg/L	191750	ppb	21:46:20
2	K 766.490 Radial†	107766.5	101921.9	41903	µg/L	41903	ppb	21:46:23
2	Mg 279.077 IEC†	99112.4	94775.7	38726	µg/L	38726	ppb	21:46:23
2	Na 589.592 Radial†	71669.1	67448.6	10205	µg/L	10205	ppb	21:46:23
2	Sr 421.552†	1092732.6	1047002.3	2414.5	µg/L	2414.5	ppb	21:46:20
2	Sc 361.383	1780226.7	1780226.7	101.43	%			21:46:39
2	Y 371.029	1133393.6	1133393.6	106.52	%			21:46:39
2	Ag 328.068†	80020.7	75443.1	309.22	µg/L	309.22	ppb	21:46:39
2	As 188.979†	3200.2	3172.7	1173.2	µg/L	1173.2	ppb	21:46:41
2	B 249.677†	95107.5	90533.5	1472.9	µg/L	1472.9	ppb	21:46:39
2	Ba 233.527†	486827.8	480112.5	2089.0	µg/L	2089.0	ppb	21:46:39
2	Be 313.107†	2692808.6	2655552.8	796.87	µg/L	796.87	ppb	21:46:39
2	Cd 226.502†	90149.2	88985.7	591.45	µg/L	591.45	ppb	21:46:39
2	Co 228.616†	69278.3	68472.0	918.45	µg/L	918.45	ppb	21:46:39
2	Cr 267.716†	277231.7	273136.7	2307.1	µg/L	2307.1	ppb	21:46:39
2	Cu 324.752†	439048.9	430057.5	1841.5	µg/L	1841.5	ppb	21:46:39
2	Mn 257.610†	4159661.6	4100722.4	5479.0	µg/L	5479.0	ppb	21:46:39
2	Mo 202.031†	15440.8	15257.4	494.04	µg/L	494.04	ppb	21:46:41
2	Ni 231.604†	107011.2	105577.4	1327.9	µg/L	1327.9	ppb	21:46:39
2	P 214.914†	33982.9	33497.8	7864.5	µg/L	7864.5	ppb	21:46:41
2	Pb 220.353†	14338.5	14039.0	867.62	µg/L	867.62	ppb	21:46:41

2	S 181.975 Axial†	4824.3	4668.5	3831.0 µg/L	3831.0 ppb		21:46:41
2	Sb 206.836†	9174.1	8966.5	1148.9 µg/L	1148.9 ppb		21:46:41
2	Se 196.026†	7309.2	7192.3	2950 µg/L	2950 ppb		21:46:41
2	SiO2†	850174.3	836410.7	89454 µg/L	89454 ppb		21:46:39
2	Si 251.611†	2613574.6	2575703.9	41677 µg/L	41677 ppb		21:46:39
2	Sn 189.927†	15736.2	15516.4	1093.8 µg/L	1093.8 ppb		21:46:41
2	Ti 334.940†	5884990.8	5800967.8	5810.4 µg/L	5810.4 ppb		21:46:39
2	Tl 190.801†	8661.8	8656.5	1240.5 µg/L	1240.5 ppb		21:46:41
2	U 409.014†	-4449.5	-4102.9	-191.97 µg/L	-191.97 ppb		21:46:39
2	V 292.402†	237474.2	233809.5	1230.5 µg/L	1230.5 ppb		21:46:39
2	Zn 213.857†	956766.7	942725.8	5820.4 µg/L	5820.4 ppb		21:46:39
3	Sc RADIAL	155239.8	155239.8	105 %			21:46:27
3	Al 396.153Radial†	470048.5	447674.9	92230 µg/L	92230 ppb		21:46:27
3	Ca 317.933Radial†	1755245.0	1670765.0	100530 µg/L	100530 ppb		21:46:25
3	Fe 238.204 Radial†	2977644.7	2835374.0	190790 µg/L	190790 ppb		21:46:25
3	K 766.490 Radial†	108451.5	101962.1	41919 µg/L	41919 ppb		21:46:27
3	Mg 279.077 IEC†	99944.6	95005.2	38821 µg/L	38821 ppb		21:46:27
3	Na 589.592 Radial†	72368.8	67707.8	10244 µg/L	10244 ppb		21:46:27
3	Sr 421.552†	1093529.5	1041554.4	2401.9 µg/L	2401.9 ppb		21:46:25
3	Sc 361.383	1778519.6	1778519.6	101.34 %			21:46:45
3	Y 371.029	1132206.3	1132206.3	106.41 %			21:46:45
3	Ag 328.068†	80163.5	75659.8	310.07 µg/L	310.07 ppb		21:46:45
3	As 188.979†	3196.3	3171.8	1172.7 µg/L	1172.7 ppb		21:46:47
3	B 249.677†	94916.0	90434.6	1471.3 µg/L	1471.3 ppb		21:46:45
3	Ba 233.527†	486216.7	479970.2	2088.3 µg/L	2088.3 ppb		21:46:45
3	Be 313.107†	2686580.5	2651955.0	795.79 µg/L	795.79 ppb		21:46:45
3	Cd 226.502†	90148.3	89070.1	592.13 µg/L	592.13 ppb		21:46:45
3	Co 228.616†	69014.0	68276.8	915.86 µg/L	915.86 ppb		21:46:45
3	Cr 267.716†	276541.0	272717.5	2303.5 µg/L	2303.5 ppb		21:46:45
3	Cu 324.752†	438474.5	429906.1	1840.7 µg/L	1840.7 ppb		21:46:45
3	Mn 257.610†	4152660.1	4097749.4	5475.1 µg/L	5475.1 ppb		21:46:45
3	Mo 202.031†	15452.2	15283.3	494.82 µg/L	494.82 ppb		21:46:47
3	Ni 231.604†	106819.4	105489.3	1326.8 µg/L	1326.8 ppb		21:46:45
3	P 214.914†	34130.2	33675.3	7907.6 µg/L	7907.6 ppb		21:46:47
3	Pb 220.353†	14362.5	14076.2	869.96 µg/L	869.96 ppb		21:46:47
3	S 181.975 Axial†	4797.5	4646.6	3813.1 µg/L	3813.1 ppb		21:46:47
3	Sb 206.836†	9228.9	9029.2	1157.3 µg/L	1157.3 ppb		21:46:47
3	Se 196.026†	7373.7	7263.0	2970 µg/L	2970 ppb		21:46:47
3	SiO2†	849161.7	836216.0	89433 µg/L	89433 ppb		21:46:45
3	Si 251.611†	2610514.2	2575157.0	41668 µg/L	41668 ppb		21:46:45
3	Sn 189.927†	15809.7	15603.9	1099.9 µg/L	1099.9 ppb		21:46:47
3	Ti 334.940†	5882728.8	5804304.5	5813.8 µg/L	5813.8 ppb		21:46:45
3	Tl 190.801†	8715.2	8717.4	1248.7 µg/L	1248.7 ppb		21:46:47
3	U 409.014†	-4816.5	-4469.3	-214.72 µg/L	-214.72 ppb		21:46:45
3	V 292.402†	237321.9	233884.0	1231.0 µg/L	1231.0 ppb		21:46:45
3	Zn 213.857†	954496.8	941391.3	5812.3 µg/L	5812.3 ppb		21:46:45

Mean Data: 1202065046|962575|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1780382.1	101.44	%	0.111				0.11%
Sc RADIAL	155538.2	105	%	0.9				0.90%
Y 371.029	1133519.1	106.53	%	0.130				0.12%
Ag 328.068†	75540.1	309.59	µg/L	0.438	309.59	ppb	0.438	0.14%
Al 396.153Radial†	446278.6	91943	µg/L	411.4	91943	ppb	411.4	0.45%
As 188.979†	3153.4	1166.4	µg/L	11.39	1166.4	ppb	11.39	0.98%
B 249.677†	90474.1	1471.9	µg/L	0.85	1471.9	ppb	0.85	0.06%
Ba 233.527†	479976.9	2088.4	µg/L	0.57	2088.4	ppb	0.57	0.03%
Be 313.107†	2654154.9	796.45	µg/L	0.582	796.45	ppb	0.582	0.07%
Ca 317.933Radial†	1674215.8	100730	µg/L	255.9	100730	ppb	255.9	0.25%
Cd 226.502†	89133.0	592.52	µg/L	1.306	592.52	ppb	1.306	0.22%
Co 228.616†	68401.4	917.52	µg/L	1.444	917.52	ppb	1.444	0.16%
Cr 267.716†	273018.7	2306.1	µg/L	2.22	2306.1	ppb	2.22	0.10%
Cu 324.752†	430014.5	1841.2	µg/L	0.46	1841.2	ppb	0.46	0.02%
Fe 238.204 Radial†	2841697.4	191210	µg/L	491.9	191210	ppb	491.9	0.26%
K 766.490 Radial†	101692.1	41808	µg/L	178.2	41808	ppb	178.2	0.43%
Mg 279.077 IEC†	94787.4	38731	µg/L	87.3	38731	ppb	87.3	0.23%
Mn 257.610†	4100244.2	5478.4	µg/L	3.07	5478.4	ppb	3.07	0.06%
Mo 202.031†	15247.7	493.71	µg/L	1.311	493.71	ppb	1.311	0.27%
Na 589.592 Radial†	67400.6	10197	µg/L	50.5	10197	ppb	50.5	0.50%

Ni 231.604†	105560.9	1327.7	µg/L	0.82	1327.7	ppb	0.82	0.06%
P 214.914†	33433.2	7849.4	µg/L	67.02	7849.4	ppb	67.02	0.85%
Pb 220.353†	13946.0	861.94	µg/L	11.915	861.94	ppb	11.915	1.38%
S 181.975 Axial†	4637.4	3805.6	µg/L	29.92	3805.6	ppb	29.92	0.79%
Sb 206.836†	8952.5	1147.1	µg/L	11.15	1147.1	ppb	11.15	0.97%
Se 196.026†	7186.8	2940	µg/L	31.6	2940	ppb	31.6	1.08%
SiO2†	836585.8	89473	µg/L	51.7	89473	ppb	51.7	0.06%
Si 251.611†	2576522.2	41691	µg/L	31.0	41691	ppb	31.0	0.07%
Sn 189.927†	15487.1	1091.8	µg/L	9.28	1091.8	ppb	9.28	0.85%
Sr 421.552†	1042501.7	2404.1	µg/L	9.48	2404.1	ppb	9.48	0.39%
Ti 334.940†	5801200.0	5810.7	µg/L	2.99	5810.7	ppb	2.99	0.05%
Tl 190.801†	8665.8	1241.7	µg/L	6.43	1241.7	ppb	6.43	0.52%
U 409.014†	-4291.5	-203.70	µg/L	11.390	-203.70	ppb	11.390	5.59%
Concentration less than lower limit for U 409.014.								
V 292.402†	233727.7	1230.1	µg/L	1.11	1230.1	ppb	1.11	0.09%
Zn 213.857†	942611.9	5819.8	µg/L	7.21	5819.8	ppb	7.21	0.12%

Sequence No.: 129
Sample ID: 1202065047|962575|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 315
Date Collected: 3/30/2010 21:48:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065047|962575|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154380.9	154380.9	104	%			21:49:24
1	Al 396.153Radial†	121332.3	116246.6	23955	µg/L	23955	ppb	21:49:24
1	Ca 317.933Radial†	77413.2	73430.3	4418.1	µg/L	4418.1	ppb	21:49:24
1	Fe 238.204 Radial†	1218150.3	1166318.4	78480	µg/L	78480	ppb	21:49:22
1	K 766.490 Radial†	27662.3	25175.7	10352	µg/L	10352	ppb	21:49:24
1	Mg 279.077 IEC†	10380.6	9771.3	3941.2	µg/L	3941.2	ppb	21:49:24
1	Na 589.592 Radial†	117632.6	111434.4	16912	µg/L	16912	ppb	21:49:24
1	Sr 421.552†	17221.3	16712.2	38.518	µg/L	38.518	ppb	21:49:24
1	Sc 361.383	1796024.4	1796024.4	102.33	%			21:49:37
1	Y 371.029	1297311.4	1297311.4	121.92	%			21:49:37
1	Ag 328.068†	3988.7	450.7	1.1392	µg/L	1.1392	ppb	21:49:37
1	As 188.979†	-7.8	10.1	22.310	µg/L	22.310	ppb	21:49:57
1	B 249.677†	3676.4	362.3	5.8352	µg/L	5.8352	ppb	21:49:37
1	Ba 233.527†	71781.7	70307.3	305.18	µg/L	305.18	ppb	21:49:37
1	Be 313.107†	22461.0	22734.5	6.7203	µg/L	6.7203	ppb	21:49:37
1	Cd 226.502†	1121.8	1206.3	0.0671	µg/L	0.0671	ppb	21:49:57
1	Co 228.616†	1369.8	1511.0	16.663	µg/L	16.663	ppb	21:49:57
1	Cr 267.716†	15021.0	14500.0	124.52	µg/L	124.52	ppb	21:49:57
1	Cu 324.752†	8361.2	5381.6	33.947	µg/L	33.947	ppb	21:49:37
1	Mn 257.610†	1944278.6	1899776.0	2538.9	µg/L	2538.9	ppb	21:49:37
1	Mo 202.031†	179.5	210.2	9.8926	µg/L	9.8926	ppb	21:49:57
1	Ni 231.604†	6277.5	6212.3	78.137	µg/L	78.137	ppb	21:49:57
1	P 214.914†	4532.2	4423.8	1006.8	µg/L	1006.8	ppb	21:49:57
1	Pb 220.353†	827.0	711.2	46.700	µg/L	46.700	ppb	21:49:57
1	S 181.975 Axial†	1379.7	1260.5	1033.3	µg/L	1033.3	ppb	21:49:57
1	Sb 206.836†	81.9	2.0	-2.4808	µg/L	-2.4808	ppb	21:49:57
1	Se 196.026†	-47.6	-60.1	2.85	µg/L	2.85	ppb	21:49:57
1	SiO2†	493536.7	480531.6	51410	µg/L	51410	ppb	21:49:37
1	Si 251.611†	1514423.2	1478947.6	23938	µg/L	23938	ppb	21:49:37
1	Sn 189.927†	-33.0	-29.7	7.9534	µg/L	7.9534	ppb	21:49:57
1	Ti 334.940†	3033411.9	2963368.5	2968.7	µg/L	2968.7	ppb	21:49:37
1	Tl 190.801†	-432.7	-305.8	-4.1605	µg/L	-4.1605	ppb	21:49:57
1	U 409.014†	-5828.7	-5412.0	-335.11	µg/L	-335.11	ppb	21:49:37
1	V 292.402†	17752.0	17037.4	79.790	µg/L	79.790	ppb	21:49:57
1	Zn 213.857†	62922.1	60963.0	371.18	µg/L	371.18	ppb	21:49:37
2	Sc RADIAL	157858.5	157858.5	107	%			21:49:28
2	Al 396.153Radial†	124019.7	116203.7	23946	µg/L	23946	ppb	21:49:28
2	Ca 317.933Radial†	78878.3	73169.2	4402.4	µg/L	4402.4	ppb	21:49:28
2	Fe 238.204 Radial†	1213398.9	1136171.6	76452	µg/L	76452	ppb	21:49:26
2	K 766.490 Radial†	28097.1	24999.3	10280	µg/L	10280	ppb	21:49:28
2	Mg 279.077 IEC†	10671.1	9824.4	3964.7	µg/L	3964.7	ppb	21:49:28
2	Na 589.592 Radial†	119491.2	110693.4	16799	µg/L	16799	ppb	21:49:28
2	Sr 421.552†	17529.2	16637.3	38.345	µg/L	38.345	ppb	21:49:28
2	Sc 361.383	1786091.7	1786091.7	101.77	%			21:50:00
2	Y 371.029	1290612.9	1290612.9	121.29	%			21:50:00
2	Ag 328.068†	3630.4	120.3	-0.1641	µg/L	-0.1641	ppb	21:50:00
2	As 188.979†	-1.9	15.9	23.869	µg/L	23.869	ppb	21:50:20
2	B 249.677†	3652.3	358.5	5.7738	µg/L	5.7738	ppb	21:50:00
2	Ba 233.527†	71599.5	70518.4	306.13	µg/L	306.13	ppb	21:50:00
2	Be 313.107†	22564.8	22958.5	6.7873	µg/L	6.7873	ppb	21:50:00
2	Cd 226.502†	1120.9	1211.4	0.3158	µg/L	0.3158	ppb	21:50:20
2	Co 228.616†	1368.5	1517.1	16.853	µg/L	16.853	ppb	21:50:20
2	Cr 267.716†	15035.6	14596.0	125.26	µg/L	125.26	ppb	21:50:20
2	Cu 324.752†	8283.0	5350.2	33.519	µg/L	33.519	ppb	21:50:00
2	Mn 257.610†	1941160.4	1907277.8	2548.9	µg/L	2548.9	ppb	21:50:00
2	Mo 202.031†	166.3	198.1	9.4303	µg/L	9.4303	ppb	21:50:20
2	Ni 231.604†	6255.2	6224.4	78.289	µg/L	78.289	ppb	21:50:20
2	P 214.914†	4493.4	4410.4	1005.0	µg/L	1005.0	ppb	21:50:20
2	Pb 220.353†	812.2	701.1	46.165	µg/L	46.165	ppb	21:50:20

2	S 181.975 Axial†	1365.1	1253.6	1027.7	µg/L	1027.7 ppb	21:50:20
2	Sb 206.836†	73.1	-6.2	-3.5468	µg/L	-3.5468 ppb	21:50:20
2	Se 196.026†	-43.6	-56.4	3.61	µg/L	3.61 ppb	21:50:20
2	SiO2†	493280.6	482962.0	51670	µg/L	51670 ppb	21:50:00
2	Si 251.611†	1512790.9	1485573.6	24046	µg/L	24046 ppb	21:50:00
2	Sn 189.927†	-26.2	-23.2	8.4521	µg/L	8.4521 ppb	21:50:20
2	Ti 334.940†	3029720.1	2976225.4	2981.6	µg/L	2981.6 ppb	21:50:00
2	Tl 190.801†	-423.8	-299.3	-3.1409	µg/L	-3.1409 ppb	21:50:20
2	U 409.014†	-5813.2	-5428.6	-335.62	µg/L	-335.62 ppb	21:50:00
2	V 292.402†	17667.7	17051.1	80.063	µg/L	80.063 ppb	21:50:20
2	Zn 213.857†	62890.4	61273.8	373.33	µg/L	373.33 ppb	21:50:00
3	Sc RADIAL	156319.5	156319.5	106	%		21:49:32
3	Al 396.153Radial†	122786.6	116180.9	23941	µg/L	23941 ppb	21:49:32
3	Ca 317.933Radial†	78128.4	73187.3	4403.5	µg/L	4403.5 ppb	21:49:32
3	Fe 238.204 Radial†	1207706.7	1141975.9	76842	µg/L	76842 ppb	21:49:30
3	K 766.490 Radial†	27836.3	25011.7	10285	µg/L	10285 ppb	21:49:32
3	Mg 279.077 IEC†	10482.7	9744.6	3931.6	µg/L	3931.6 ppb	21:49:32
3	Na 589.592 Radial†	118624.3	110975.2	16842	µg/L	16842 ppb	21:49:32
3	Sr 421.552†	17295.0	16577.4	38.207	µg/L	38.207 ppb	21:49:32
3	Sc 361.383	1777475.5	1777475.5	101.28	%		21:50:22
3	Y 371.029	1286718.9	1286718.9	120.93	%		21:50:22
3	Ag 328.068†	3664.1	170.8	0.0287	µg/L	0.0287 ppb	21:50:22
3	As 188.979†	-6.8	11.0	22.265	µg/L	22.265 ppb	21:50:43
3	B 249.677†	3664.9	388.4	6.2610	µg/L	6.2610 ppb	21:50:22
3	Ba 233.527†	71761.0	71018.9	308.30	µg/L	308.30 ppb	21:50:22
3	Be 313.107†	22451.6	22954.3	6.7833	µg/L	6.7833 ppb	21:50:22
3	Cd 226.502†	1111.6	1207.6	0.2486	µg/L	0.2486 ppb	21:50:43
3	Co 228.616†	1371.9	1527.0	16.969	µg/L	16.969 ppb	21:50:43
3	Cr 267.716†	15059.7	14691.3	126.08	µg/L	126.08 ppb	21:50:43
3	Cu 324.752†	8397.4	5502.7	34.210	µg/L	34.210 ppb	21:50:22
3	Mn 257.610†	1937474.8	1912884.9	2556.4	µg/L	2556.4 ppb	21:50:22
3	Mo 202.031†	159.7	192.4	9.2635	µg/L	9.2635 ppb	21:50:43
3	Ni 231.604†	6240.1	6239.3	78.476	µg/L	78.476 ppb	21:50:43
3	P 214.914†	4529.5	4467.5	1018.3	µg/L	1018.3 ppb	21:50:43
3	Pb 220.353†	824.9	717.6	47.178	µg/L	47.178 ppb	21:50:43
3	S 181.975 Axial†	1392.8	1287.6	1055.5	µg/L	1055.5 ppb	21:50:43
3	Sb 206.836†	76.2	-2.9	-3.1287	µg/L	-3.1287 ppb	21:50:43
3	Se 196.026†	-48.9	-61.8	1.58	µg/L	1.58 ppb	21:50:43
3	SiO2†	491466.8	483520.6	51729	µg/L	51729 ppb	21:50:22
3	Si 251.611†	1508015.6	1488064.3	24086	µg/L	24086 ppb	21:50:22
3	Sn 189.927†	-29.7	-26.8	8.2443	µg/L	8.2443 ppb	21:50:43
3	Ti 334.940†	3027694.1	2988656.3	2994.0	µg/L	2994.0 ppb	21:50:22
3	Tl 190.801†	-423.5	-301.1	-3.2288	µg/L	-3.2288 ppb	21:50:43
3	U 409.014†	-5931.3	-5572.8	-344.66	µg/L	-344.66 ppb	21:50:22
3	V 292.402†	17704.1	17171.1	80.643	µg/L	80.643 ppb	21:50:43
3	Zn 213.857†	62690.7	61376.1	373.93	µg/L	373.93 ppb	21:50:22

Mean Data: 1202065047|962575|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786530.5	101.79	%	0.529				0.52%
Sc RADIAL	156186.3	106	%	1.2				1.12%
Y 371.029	1291547.7	121.38	%	0.504				0.41%
Ag 328.068†	247.2	0.3346	µg/L	0.70340	0.3346	ppb	0.70340	210.22%
Al 396.153Radial†	116210.4	23947	µg/L	6.9	23947	ppb	6.9	0.03%
As 188.979†	12.3	22.814	µg/L	0.9132	22.814	ppb	0.9132	4.00%
B 249.677†	369.7	5.9567	µg/L	0.26536	5.9567	ppb	0.26536	4.45%
Ba 233.527†	70614.8	306.54	µg/L	1.600	306.54	ppb	1.600	0.52%
Be 313.107†	22882.4	6.7636	µg/L	0.03754	6.7636	ppb	0.03754	0.56%
Ca 317.933Radial†	73262.3	4408.0	µg/L	8.77	4408.0	ppb	8.77	0.20%
Cd 226.502†	1208.4	0.2105	µg/L	0.12869	0.2105	ppb	0.12869	61.13%
Co 228.616†	1518.4	16.829	µg/L	0.1546	16.829	ppb	0.1546	0.92%
Cr 267.716†	14595.8	125.29	µg/L	0.780	125.29	ppb	0.780	0.62%
Cu 324.752†	5411.5	33.892	µg/L	0.3487	33.892	ppb	0.3487	1.03%
Fe 238.204 Radial†	1148155.3	77258	µg/L	1076.3	77258	ppb	1076.3	1.39%
K 766.490 Radial†	25062.3	10305	µg/L	40.5	10305	ppb	40.5	0.39%
Mg 279.077 IEC†	9780.1	3945.9	µg/L	17.03	3945.9	ppb	17.03	0.43%
Mn 257.610†	1906646.2	2548.1	µg/L	8.79	2548.1	ppb	8.79	0.35%
Mo 202.031†	200.3	9.5288	µg/L	0.32594	9.5288	ppb	0.32594	3.42%
Na 589.592 Radial†	111034.3	16851	µg/L	56.8	16851	ppb	56.8	0.34%

Ni 231.604†	6225.3	78.301	µg/L	0.1703	78.301	ppb	0.1703	0.22%
P 214.914†	4433.9	1010.0	µg/L	7.23	1010.0	ppb	7.23	0.72%
Pb 220.353†	710.0	46.681	µg/L	0.5072	46.681	ppb	0.5072	1.09%
S 181.975 Axial†	1267.2	1038.9	µg/L	14.70	1038.9	ppb	14.70	1.41%
Sb 206.836†	-2.4	-3.0521	µg/L	0.53709	-3.0521	ppb	0.53709	17.60%
Se 196.026†	-59.4	2.68	µg/L	1.025	2.68	ppb	1.025	38.24%
SiO2†	482338.1	51603	µg/L	170.0	51603	ppb	170.0	0.33%
Si 251.611†	1484195.2	24023	µg/L	76.3	24023	ppb	76.3	0.32%
Sn 189.927†	-26.6	8.2166	µg/L	0.25050	8.2166	ppb	0.25050	3.05%
Sr 421.552†	16642.3	38.357	µg/L	0.1558	38.357	ppb	0.1558	0.41%
Ti 334.940†	2976083.4	2981.4	µg/L	12.67	2981.4	ppb	12.67	0.42%
Tl 190.801†	-302.1	-3.5100	µg/L	0.56498	-3.5100	ppb	0.56498	16.10%
U 409.014†	-5471.1	-338.46	µg/L	5.370	-338.46	ppb	5.370	1.59%
Concentration less than lower limit for U 409.014.								
V 292.402†	17086.6	80.165	µg/L	0.4358	80.165	ppb	0.4358	0.54%
Zn 213.857†	61204.3	372.81	µg/L	1.444	372.81	ppb	1.444	0.39%

Sequence No.: 130
Sample ID: 1202065048|962575|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 316
Date Collected: 3/30/2010 21:50:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065048|962575|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154731.4	154731.4	105	%			21:51:22
1	Al 396.153Radial†	448496.1	428554.5	88291	µg/L	88291	ppb	21:51:22
1	Ca 317.933Radial†	200540.9	190898.1	11486	µg/L	11486	ppb	21:51:22
1	Fe 238.204 Radial†	1910965.0	1825588.9	122840	µg/L	122840	ppb	21:51:20
1	K 766.490 Radial†	99080.0	93347.9	38391	µg/L	38391	ppb	21:51:22
1	Mg 279.077 IEC†	98555.1	93990.5	38463	µg/L	38463	ppb	21:51:22
1	Na 589.592 Radial†	133959.2	126777.5	19217	µg/L	19217	ppb	21:51:22
1	Sr 421.552†	260243.5	248857.5	573.99	µg/L	573.99	ppb	21:51:22
1	Sc 361.383	1784235.6	1784235.6	101.66	%			21:51:36
1	Y 371.029	1444584.8	1444584.8	135.76	%			21:51:36
1	Ag 328.068†	124776.9	119290.7	479.95	µg/L	479.95	ppb	21:51:36
1	As 188.979†	1526.2	1519.0	564.28	µg/L	564.28	ppb	21:51:38
1	B 249.677†	35628.0	31815.4	516.92	µg/L	516.92	ppb	21:51:36
1	Ba 233.527†	323917.7	318786.3	1387.0	µg/L	1387.0	ppb	21:51:36
1	Be 313.107†	1739171.1	1711534.9	513.70	µg/L	513.70	ppb	21:51:36
1	Cd 226.502†	73864.8	72767.7	486.99	µg/L	486.99	ppb	21:51:36
1	Co 228.616†	38999.1	38534.2	516.17	µg/L	516.17	ppb	21:51:38
1	Cr 267.716†	68605.7	67306.0	569.68	µg/L	569.68	ppb	21:51:36
1	Cu 324.752†	131139.6	126207.6	551.21	µg/L	551.21	ppb	21:51:36
1	Mn 257.610†	4315612.3	4244910.4	5672.0	µg/L	5672.0	ppb	21:51:36
1	Mo 202.031†	15280.3	15065.4	485.01	µg/L	485.01	ppb	21:51:38
1	Ni 231.604†	47704.2	47002.5	591.18	µg/L	591.18	ppb	21:51:38
1	P 214.914†	12623.7	12412.4	2890.5	µg/L	2890.5	ppb	21:51:38
1	Pb 220.353†	14170.2	13841.6	855.86	µg/L	855.86	ppb	21:51:38
1	S 181.975 Axial†	7548.0	7336.9	6018.4	µg/L	6018.4	ppb	21:51:38
1	Sb 206.836†	3574.8	3438.3	449.00	µg/L	449.00	ppb	21:51:38
1	Se 196.026†	1129.9	1097.9	482	µg/L	482	ppb	21:51:38
1	SiO2†	484840.8	475164.3	50814	µg/L	50814	ppb	21:51:36
1	Si 251.611†	1491259.8	1465940.8	23718	µg/L	23718	ppb	21:51:36
1	Sn 189.927†	7790.2	7665.5	545.82	µg/L	545.82	ppb	21:51:38
1	Ti 334.940†	4552055.8	4476779.9	4481.9	µg/L	4481.9	ppb	21:51:36
1	Tl 190.801†	3036.2	3103.7	479.26	µg/L	479.26	ppb	21:51:38
1	U 409.014†	2713.8	2953.2	233.06	µg/L	233.06	ppb	21:51:36
1	V 292.402†	131384.4	128927.5	674.91	µg/L	674.91	ppb	21:51:36
1	Zn 213.857†	453668.7	445730.2	2751.0	µg/L	2751.0	ppb	21:51:36
2	Sc RADIAL	155976.0	155976.0	106	%			21:51:26
2	Al 396.153Radial†	450392.9	426933.2	87957	µg/L	87957	ppb	21:51:26
2	Ca 317.933Radial†	201717.1	190484.0	11461	µg/L	11461	ppb	21:51:26
2	Fe 238.204 Radial†	1905844.5	1806167.6	121530	µg/L	121530	ppb	21:51:24
2	K 766.490 Radial†	99386.3	92882.9	38199	µg/L	38199	ppb	21:51:26
2	Mg 279.077 IEC†	98842.5	93511.5	38267	µg/L	38267	ppb	21:51:26
2	Na 589.592 Radial†	134785.8	126539.7	19181	µg/L	19181	ppb	21:51:26
2	Sr 421.552†	261411.4	247980.3	571.96	µg/L	571.96	ppb	21:51:26
2	Sc 361.383	1795443.4	1795443.4	102.30	%			21:51:42
2	Y 371.029	1453015.3	1453015.3	136.56	%			21:51:42
2	Ag 328.068†	125280.0	119016.3	478.86	µg/L	478.86	ppb	21:51:42
2	As 188.979†	1469.5	1454.1	541.33	µg/L	541.33	ppb	21:51:44
2	B 249.677†	35813.2	31777.7	516.32	µg/L	516.32	ppb	21:51:42
2	Ba 233.527†	325796.7	318634.2	1386.4	µg/L	1386.4	ppb	21:51:42
2	Be 313.107†	1749551.1	1711002.4	513.54	µg/L	513.54	ppb	21:51:42
2	Cd 226.502†	74482.1	72917.6	488.15	µg/L	488.15	ppb	21:51:42
2	Co 228.616†	38883.8	38182.1	511.48	µg/L	511.48	ppb	21:51:44
2	Cr 267.716†	69024.8	67294.4	569.53	µg/L	569.53	ppb	21:51:42
2	Cu 324.752†	131917.7	126162.9	550.82	µg/L	550.82	ppb	21:51:42
2	Mn 257.610†	4340626.7	4242862.9	5669.2	µg/L	5669.2	ppb	21:51:42
2	Mo 202.031†	15096.1	14791.4	476.24	µg/L	476.24	ppb	21:51:44
2	Ni 231.604†	47511.1	46520.8	585.13	µg/L	585.13	ppb	21:51:44
2	P 214.914†	12520.1	12233.6	2848.7	µg/L	2848.7	ppb	21:51:44
2	Pb 220.353†	14167.6	13752.1	850.37	µg/L	850.37	ppb	21:51:44

2	S 181.975 Axial†	7538.5	7281.3	5972.7 µg/L	5972.7 ppb	21:51:44
2	Sb 206.836†	3555.6	3397.6	443.54 µg/L	443.54 ppb	21:51:44
2	Se 196.026†	1146.8	1107.4	486 µg/L	486 ppb	21:51:44
2	SiO2†	487660.4	474943.4	50791 µg/L	50791 ppb	21:51:42
2	Si 251.611†	1500921.4	1466228.3	23723 µg/L	23723 ppb	21:51:42
2	Sn 189.927†	7718.0	7547.1	537.61 µg/L	537.61 ppb	21:51:44
2	Ti 334.940†	4577212.7	4473419.9	4478.5 µg/L	4478.5 ppb	21:51:42
2	Tl 190.801†	3025.6	3074.7	475.34 µg/L	475.34 ppb	21:51:44
2	U 409.014†	2757.6	2979.3	234.94 µg/L	234.94 ppb	21:51:42
2	V 292.402†	132107.6	128827.6	674.43 µg/L	674.43 ppb	21:51:42
2	Zn 213.857†	456940.3	446142.6	2753.7 µg/L	2753.7 ppb	21:51:42
3	Sc RADIAL	155353.4	155353.4	105 %		21:51:31
3	Al 396.153Radial†	448576.9	426915.9	87953 µg/L	87953 ppb	21:51:31
3	Ca 317.933Radial†	200159.6	189768.2	11418 µg/L	11418 ppb	21:51:31
3	Fe 238.204 Radial†	1909222.4	1816621.1	122240 µg/L	122240 ppb	21:51:29
3	K 766.490 Radial†	98874.8	92773.6	38154 µg/L	38154 ppb	21:51:31
3	Mg 279.077 IEC†	98070.0	93151.9	38119 µg/L	38119 ppb	21:51:31
3	Na 589.592 Radial†	133667.7	125987.8	19097 µg/L	19097 ppb	21:51:31
3	Sr 421.552†	259625.5	247273.9	570.33 µg/L	570.33 ppb	21:51:31
3	Sc 361.383	1790911.9	1790911.9	102.04 %		21:51:48
3	Y 371.029	1448725.1	1448725.1	136.15 %		21:51:48
3	Ag 328.068†	125263.4	119309.9	480.04 µg/L	480.04 ppb	21:51:48
3	As 188.979†	1527.2	1514.4	562.53 µg/L	562.53 ppb	21:51:50
3	B 249.677†	35673.5	31729.4	515.51 µg/L	515.51 ppb	21:51:48
3	Ba 233.527†	325503.1	319152.2	1388.6 µg/L	1388.6 ppb	21:51:48
3	Be 313.107†	1748094.1	1713901.9	514.41 µg/L	514.41 ppb	21:51:48
3	Cd 226.502†	74282.0	72905.7	488.00 µg/L	488.00 ppb	21:51:48
3	Co 228.616†	39211.5	38599.3	517.09 µg/L	517.09 ppb	21:51:50
3	Cr 267.716†	68916.3	67358.8	570.10 µg/L	570.10 ppb	21:51:48
3	Cu 324.752†	131795.7	126369.6	551.80 µg/L	551.80 ppb	21:51:48
3	Mn 257.610†	4337698.3	4250729.4	5679.8 µg/L	5679.8 ppb	21:51:48
3	Mo 202.031†	15281.9	15010.9	483.24 µg/L	483.24 ppb	21:51:50
3	Ni 231.604†	48167.4	47281.5	594.69 µg/L	594.69 ppb	21:51:50
3	P 214.914†	12725.2	12465.6	2903.5 µg/L	2903.5 ppb	21:51:50
3	Pb 220.353†	14331.6	13947.9	862.36 µg/L	862.36 ppb	21:51:50
3	S 181.975 Axial†	7591.7	7352.1	6030.8 µg/L	6030.8 ppb	21:51:50
3	Sb 206.836†	3548.7	3399.6	443.91 µg/L	443.91 ppb	21:51:50
3	Se 196.026†	1120.2	1084.2	477 µg/L	477 ppb	21:51:50
3	SiO2†	486955.6	475458.9	50846 µg/L	50846 ppb	21:51:48
3	Si 251.611†	1498346.8	1467417.6	23742 µg/L	23742 ppb	21:51:48
3	Sn 189.927†	7815.4	7661.6	545.56 µg/L	545.56 ppb	21:51:50
3	Ti 334.940†	4574038.9	4481631.0	4486.8 µg/L	4486.8 ppb	21:51:48
3	Tl 190.801†	3080.7	3136.1	483.69 µg/L	483.69 ppb	21:51:50
3	U 409.014†	2857.9	3084.5	241.49 µg/L	241.49 ppb	21:51:48
3	V 292.402†	131965.9	129015.5	675.43 µg/L	675.43 ppb	21:51:48
3	Zn 213.857†	456985.7	447317.3	2760.8 µg/L	2760.8 ppb	21:51:48

Mean Data: 1202065048|962575|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1790197.0	102.00	%	0.321				0.31%
Sc RADIAL	155353.6	105	%	0.4				0.40%
Y 371.029	1448775.1	136.16	%	0.396				0.29%
Ag 328.068†	119205.6	479.62	µg/L	0.656	479.62	ppb	0.656	0.14%
Al 396.153Radial†	427467.9	88067	µg/L	193.8	88067	ppb	193.8	0.22%
As 188.979†	1495.8	556.05	µg/L	12.775	556.05	ppb	12.775	2.30%
B 249.677†	31774.1	516.25	µg/L	0.705	516.25	ppb	0.705	0.14%
Ba 233.527†	318857.6	1387.4	µg/L	1.16	1387.4	ppb	1.16	0.08%
Be 313.107†	1712146.4	513.89	µg/L	0.464	513.89	ppb	0.464	0.09%
Ca 317.933Radial†	190383.5	11455	µg/L	34.4	11455	ppb	34.4	0.30%
Cd 226.502†	72863.7	487.71	µg/L	0.633	487.71	ppb	0.633	0.13%
Co 228.616†	38438.5	514.91	µg/L	3.009	514.91	ppb	3.009	0.58%
Cr 267.716†	67319.7	569.77	µg/L	0.292	569.77	ppb	0.292	0.05%
Cu 324.752†	126246.7	551.28	µg/L	0.493	551.28	ppb	0.493	0.09%
Fe 238.204 Radial†	1816125.9	122200	µg/L	654.1	122200	ppb	654.1	0.54%
K 766.490 Radial†	93001.5	38248	µg/L	125.4	38248	ppb	125.4	0.33%
Mg 279.077 IEC†	93551.3	38283	µg/L	172.3	38283	ppb	172.3	0.45%
Mn 257.610†	4246167.6	5673.7	µg/L	5.46	5673.7	ppb	5.46	0.10%
Mo 202.031†	14955.9	481.50	µg/L	4.639	481.50	ppb	4.639	0.96%
Na 589.592 Radial†	126435.0	19165	µg/L	61.4	19165	ppb	61.4	0.32%

Ni 231.604†	46934.9	590.33	µg/L	4.840	590.33	ppb	4.840	0.82%
P 214.914†	12370.6	2880.9	µg/L	28.65	2880.9	ppb	28.65	0.99%
Pb 220.353†	13847.2	856.19	µg/L	6.001	856.19	ppb	6.001	0.70%
S 181.975 Axial†	7323.4	6007.3	µg/L	30.59	6007.3	ppb	30.59	0.51%
Sb 206.836†	3411.8	445.48	µg/L	3.050	445.48	ppb	3.050	0.68%
Se 196.026†	1096.5	482	µg/L	4.6	482	ppb	4.6	0.95%
SiO2†	475188.9	50817	µg/L	27.5	50817	ppb	27.5	0.05%
Si 251.611†	1466528.9	23728	µg/L	12.7	23728	ppb	12.7	0.05%
Sn 189.927†	7624.7	542.99	µg/L	4.668	542.99	ppb	4.668	0.86%
Sr 421.552†	248037.2	572.10	µg/L	1.830	572.10	ppb	1.830	0.32%
Ti 334.940†	4477276.9	4482.4	µg/L	4.14	4482.4	ppb	4.14	0.09%
Tl 190.801†	3104.8	479.43	µg/L	4.177	479.43	ppb	4.177	0.87%
U 409.014†	3005.7	236.50	µg/L	4.428	236.50	ppb	4.428	1.87%
V 292.402†	128923.5	674.93	µg/L	0.498	674.93	ppb	0.498	0.07%
Zn 213.857†	446396.7	2755.2	µg/L	5.10	2755.2	ppb	5.10	0.19%

Sequence No.: 131
Sample ID: 1202065050|962575|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 317
Date Collected: 3/30/2010 21:51:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065050|962575|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153618.0	153618.0	104	%			21:52:30
1	Al 396.153Radial†	187298.8	180304.4	37133	µg/L	37133	ppb	21:52:30
1	Ca 317.933Radial†	139126.1	133186.0	8013.5	µg/L	8013.5	ppb	21:52:30
1	Fe 238.204 Radial†	1141421.7	1098273.5	73901	µg/L	73901	ppb	21:52:28
1	K 766.490 Radial†	41462.2	38587.1	15867	µg/L	15867	ppb	21:52:30
1	Mg 279.077 IEC†	24448.6	23358.6	9530.9	µg/L	9530.9	ppb	21:52:30
1	Na 589.592 Radial†	144137.2	137499.7	20865	µg/L	20865	ppb	21:52:30
1	Sr 421.552†	237367.9	228645.8	527.39	µg/L	527.39	ppb	21:52:28
1	Sc 361.383	1778308.8	1778308.8	101.32	%			21:52:43
1	Y 371.029	1318847.5	1318847.5	123.95	%			21:52:43
1	Ag 328.068†	125163.1	120080.9	482.74	µg/L	482.74	ppb	21:52:43
1	As 188.979†	1471.1	1469.6	537.07	µg/L	537.07	ppb	21:52:45
1	B 249.677†	34643.6	30960.7	503.01	µg/L	503.01	ppb	21:52:43
1	Ba 233.527†	180195.3	178003.4	774.62	µg/L	774.62	ppb	21:52:43
1	Be 313.107†	1745657.6	1723638.3	517.32	µg/L	517.32	ppb	21:52:43
1	Cd 226.502†	74181.8	73322.7	495.95	µg/L	495.95	ppb	21:52:43
1	Co 228.616†	38281.6	37953.9	510.29	µg/L	510.29	ppb	21:52:45
1	Cr 267.716†	80535.8	79305.1	670.12	µg/L	670.12	ppb	21:52:43
1	Cu 324.752†	131310.0	126805.6	545.77	µg/L	545.77	ppb	21:52:43
1	Mn 257.610†	2160019.1	2131625.5	2848.6	µg/L	2848.6	ppb	21:52:43
1	Mo 202.031†	15741.3	15570.4	498.56	µg/L	498.56	ppb	21:52:45
1	Ni 231.604†	48953.1	48391.5	608.65	µg/L	608.65	ppb	21:52:45
1	P 214.914†	4773.8	4706.5	1073.9	µg/L	1073.9	ppb	21:52:45
1	Pb 220.353†	9053.9	8838.7	546.39	µg/L	546.39	ppb	21:52:45
1	S 181.975 Axial†	7695.3	7507.1	6158.0	µg/L	6158.0	ppb	21:52:45
1	Sb 206.836†	3709.0	3582.5	467.31	µg/L	467.31	ppb	21:52:45
1	Se 196.026†	1224.2	1194.7	504	µg/L	504	ppb	21:52:45
1	SiO2†	620178.5	610323.5	65274	µg/L	65274	ppb	21:52:43
1	Si 251.611†	1900560.2	1874783.0	30336	µg/L	30336	ppb	21:52:43
1	Sn 189.927†	7322.7	7229.6	511.41	µg/L	511.41	ppb	21:52:45
1	Ti 334.940†	3269233.9	3225639.8	3230.7	µg/L	3230.7	ppb	21:52:43
1	Tl 190.801†	3296.8	3370.8	494.39	µg/L	494.39	ppb	21:52:45
1	U 409.014†	1939.0	2197.4	171.06	µg/L	171.06	ppb	21:52:43
1	V 292.402†	107049.9	105341.6	556.58	µg/L	556.58	ppb	21:52:43
1	Zn 213.857†	136873.1	134560.4	824.54	µg/L	824.54	ppb	21:52:43
2	Sc RADIAL	153849.6	153849.6	104	%			21:52:34
2	Al 396.153Radial†	185990.2	178775.8	36818	µg/L	36818	ppb	21:52:34
2	Ca 317.933Radial†	138326.2	132215.9	7955.1	µg/L	7955.1	ppb	21:52:34
2	Fe 238.204 Radial†	1154712.3	1109390.9	74649	µg/L	74649	ppb	21:52:32
2	K 766.490 Radial†	41217.9	38292.3	15746	µg/L	15746	ppb	21:52:34
2	Mg 279.077 IEC†	24213.6	23097.4	9422.8	µg/L	9422.8	ppb	21:52:34
2	Na 589.592 Radial†	143498.0	136676.7	20740	µg/L	20740	ppb	21:52:34
2	Sr 421.552†	240011.3	230841.9	532.46	µg/L	532.46	ppb	21:52:32
2	Sc 361.383	1783042.6	1783042.6	101.59	%			21:52:48
2	Y 371.029	1325506.3	1325506.3	124.57	%			21:52:48
2	Ag 328.068†	126829.8	121393.5	488.01	µg/L	488.01	ppb	21:52:48
2	As 188.979†	1495.5	1489.7	544.32	µg/L	544.32	ppb	21:52:50
2	B 249.677†	35151.7	31370.0	509.72	µg/L	509.72	ppb	21:52:48
2	Ba 233.527†	182660.3	179957.6	783.12	µg/L	783.12	ppb	21:52:48
2	Be 313.107†	1773241.2	1746215.3	524.10	µg/L	524.10	ppb	21:52:48
2	Cd 226.502†	75360.9	74288.9	502.50	µg/L	502.50	ppb	21:52:48
2	Co 228.616†	37639.6	37221.7	500.36	µg/L	500.36	ppb	21:52:50
2	Cr 267.716†	81929.5	80466.0	679.92	µg/L	679.92	ppb	21:52:48
2	Cu 324.752†	133402.6	128521.4	553.10	µg/L	553.10	ppb	21:52:48
2	Mn 257.610†	2190999.5	2156460.3	2881.8	µg/L	2881.8	ppb	21:52:48
2	Mo 202.031†	15451.5	15243.9	488.21	µg/L	488.21	ppb	21:52:50
2	Ni 231.604†	48113.1	47436.4	596.64	µg/L	596.64	ppb	21:52:50
2	P 214.914†	4588.4	4511.4	1026.7	µg/L	1026.7	ppb	21:52:50
2	Pb 220.353†	8904.0	8667.4	535.88	µg/L	535.88	ppb	21:52:50

2	S 181.975 Axial†	7499.3	7293.9	5983.2 µg/L	5983.2 ppb	21:52:50
2	Sb 206.836†	3617.3	3482.5	453.88 µg/L	453.88 ppb	21:52:50
2	Se 196.026†	1214.5	1181.9	499 µg/L	499 ppb	21:52:50
2	SiO2†	630367.2	618727.4	66174 µg/L	66174 ppb	21:52:48
2	Si 251.611†	1929778.8	1898563.5	30721 µg/L	30721 ppb	21:52:48
2	Sn 189.927†	7108.9	7000.0	495.64 µg/L	495.64 ppb	21:52:50
2	Ti 334.940†	3316226.1	3263328.8	3268.5 µg/L	3268.5 ppb	21:52:48
2	Tl 190.801†	3245.0	3311.2	486.94 µg/L	486.94 ppb	21:52:50
2	U 409.014†	1989.0	2241.6	174.19 µg/L	174.19 ppb	21:52:48
2	V 292.402†	108453.3	106442.5	562.25 µg/L	562.25 ppb	21:52:48
2	Zn 213.857†	139111.1	136404.7	835.98 µg/L	835.98 ppb	21:52:48
3	Sc RADIAL	151802.2	151802.2	103 %		21:52:38
3	Al 396.153Radial†	184514.0	179748.6	37018 µg/L	37018 ppb	21:52:38
3	Ca 317.933Radial†	136943.7	132662.2	7982.0 µg/L	7982.0 ppb	21:52:38
3	Fe 238.204 Radial†	1147473.6	1117306.0	75182 µg/L	75182 ppb	21:52:36
3	K 766.490 Radial†	40810.0	38429.3	15802 µg/L	15802 ppb	21:52:38
3	Mg 279.077 IEC†	23981.6	23185.3	9458.5 µg/L	9458.5 ppb	21:52:38
3	Na 589.592 Radial†	142348.9	137417.3	20852 µg/L	20852 ppb	21:52:38
3	Sr 421.552†	238684.1	232659.9	536.65 µg/L	536.65 ppb	21:52:36
3	Sc 361.383	1787040.9	1787040.9	101.82 %		21:52:53
3	Y 371.029	1326923.6	1326923.6	124.71 %		21:52:53
3	Ag 328.068†	127147.7	121426.4	488.14 µg/L	488.14 ppb	21:52:53
3	As 188.979†	1463.1	1454.6	532.21 µg/L	532.21 ppb	21:52:55
3	B 249.677†	35309.1	31447.2	510.96 µg/L	510.96 ppb	21:52:53
3	Ba 233.527†	183450.5	180331.4	784.74 µg/L	784.74 ppb	21:52:53
3	Be 313.107†	1776448.0	1745459.5	523.87 µg/L	523.87 ppb	21:52:53
3	Cd 226.502†	75510.2	74269.7	502.32 µg/L	502.32 ppb	21:52:53
3	Co 228.616†	38048.3	37540.2	504.64 µg/L	504.64 ppb	21:52:55
3	Cr 267.716†	82247.2	80597.5	681.05 µg/L	681.05 ppb	21:52:53
3	Cu 324.752†	133758.1	128576.7	553.41 µg/L	553.41 ppb	21:52:53
3	Mn 257.610†	2197931.6	2158443.1	2884.4 µg/L	2884.4 ppb	21:52:53
3	Mo 202.031†	15620.8	15376.2	492.44 µg/L	492.44 ppb	21:52:55
3	Ni 231.604†	48598.5	47807.1	601.31 µg/L	601.31 ppb	21:52:55
3	P 214.914†	4759.8	4669.6	1064.2 µg/L	1064.2 ppb	21:52:55
3	Pb 220.353†	8970.2	8712.8	538.67 µg/L	538.67 ppb	21:52:55
3	S 181.975 Axial†	7576.6	7353.4	6032.0 µg/L	6032.0 ppb	21:52:55
3	Sb 206.836†	3674.7	3530.9	460.28 µg/L	460.28 ppb	21:52:55
3	Se 196.026†	1235.3	1199.7	506 µg/L	506 ppb	21:52:55
3	SiO2†	631627.2	618576.6	66157 µg/L	66157 ppb	21:52:53
3	Si 251.611†	1934868.7	1899312.4	30733 µg/L	30733 ppb	21:52:53
3	Sn 189.927†	7286.4	7158.7	506.63 µg/L	506.63 ppb	21:52:55
3	Ti 334.940†	3323922.9	3263584.7	3268.7 µg/L	3268.7 ppb	21:52:53
3	Tl 190.801†	3301.1	3359.2	493.38 µg/L	493.38 ppb	21:52:55
3	U 409.014†	1910.7	2160.3	169.02 µg/L	169.02 ppb	21:52:53
3	V 292.402†	108785.8	106530.1	562.71 µg/L	562.71 ppb	21:52:53
3	Zn 213.857†	139547.8	136527.3	836.66 µg/L	836.66 ppb	21:52:53

Mean Data: 1202065050|962575|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782797.4	101.58	%	0.249				0.25%
Sc RADIAL	153089.9	104	%	0.8				0.73%
Y 371.029	1323759.1	124.41	%	0.405				0.33%
Ag 328.068†	120967.0	486.30	µg/L	3.084	486.30	ppb	3.084	0.63%
Al 396.153Radial†	179609.6	36990	µg/L	159.2	36990	ppb	159.2	0.43%
As 188.979†	1471.3	537.87	µg/L	6.096	537.87	ppb	6.096	1.13%
B 249.677†	31259.3	507.89	µg/L	4.277	507.89	ppb	4.277	0.84%
Ba 233.527†	179430.8	780.82	µg/L	5.436	780.82	ppb	5.436	0.70%
Be 313.107†	1738437.7	521.76	µg/L	3.848	521.76	ppb	3.848	0.74%
Ca 317.933Radial†	132688.0	7983.5	µg/L	29.22	7983.5	ppb	29.22	0.37%
Cd 226.502†	73960.4	500.26	µg/L	3.729	500.26	ppb	3.729	0.75%
Co 228.616†	37571.9	505.10	µg/L	4.982	505.10	ppb	4.982	0.99%
Cr 267.716†	80122.9	677.03	µg/L	6.012	677.03	ppb	6.012	0.89%
Cu 324.752†	127967.9	550.76	µg/L	4.326	550.76	ppb	4.326	0.79%
Fe 238.204 Radial†	1108323.5	74578	µg/L	643.4	74578	ppb	643.4	0.86%
K 766.490 Radial†	38436.2	15805	µg/L	60.7	15805	ppb	60.7	0.38%
Mg 279.077 IEC†	23213.8	9470.7	µg/L	55.05	9470.7	ppb	55.05	0.58%
Mn 257.610†	2148843.0	2871.6	µg/L	19.97	2871.6	ppb	19.97	0.70%
Mo 202.031†	15396.8	493.07	µg/L	5.207	493.07	ppb	5.207	1.06%
Na 589.592 Radial†	137197.9	20819	µg/L	68.8	20819	ppb	68.8	0.33%

Ni 231.604†	47878.3	602.20 µg/L	6.056	602.20 ppb	6.056	1.01%
P 214.914†	4629.2	1054.9 µg/L	24.93	1054.9 ppb	24.93	2.36%
Pb 220.353†	8739.6	540.31 µg/L	5.446	540.31 ppb	5.446	1.01%
S 181.975 Axial†	7384.8	6057.7 µg/L	90.21	6057.7 ppb	90.21	1.49%
Sb 206.836†	3532.0	460.49 µg/L	6.720	460.49 ppb	6.720	1.46%
Se 196.026†	1192.1	503 µg/L	3.7	503 ppb	3.7	0.74%
SiO2†	615875.8	65868 µg/L	514.7	65868 ppb	514.7	0.78%
Si 251.611†	1890886.3	30597 µg/L	225.9	30597 ppb	225.9	0.74%
Sn 189.927†	7129.4	504.56 µg/L	8.086	504.56 ppb	8.086	1.60%
Sr 421.552†	230715.9	532.16 µg/L	4.637	532.16 ppb	4.637	0.87%
Ti 334.940†	3250851.1	3256.0 µg/L	21.88	3256.0 ppb	21.88	0.67%
Tl 190.801†	3347.0	491.57 µg/L	4.043	491.57 ppb	4.043	0.82%
U 409.014†	2199.8	171.42 µg/L	2.603	171.42 ppb	2.603	1.52%
V 292.402†	106104.7	560.51 µg/L	3.411	560.51 ppb	3.411	0.61%
Zn 213.857†	135830.8	832.39 µg/L	6.813	832.39 ppb	6.813	0.82%

Sequence No.: 132
Sample ID: 1202065049|962575|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 318
Date Collected: 3/30/2010 21:53:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065049|962575|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158050.1	158050.1	107	%			21:53:33
1	Al 396.153Radial†	21255.0	19943.4	4109.7	µg/L	4109.7	ppb	21:53:35
1	Ca 317.933Radial†	11212.3	9789.3	589.00	µg/L	589.00	ppb	21:53:35
1	Fe 238.204 Radial†	220500.5	206101.3	13868	µg/L	13868	ppb	21:53:33
1	K 766.490 Radial†	6639.0	4896.9	2013.8	µg/L	2013.8	ppb	21:53:35
1	Mg 279.077 IEC†	2009.5	1710.8	689.94	µg/L	689.94	ppb	21:53:35
1	Na 589.592 Radial†	23944.6	21189.6	3215.8	µg/L	3215.8	ppb	21:53:35
1	Sr 421.552†	2527.6	2585.8	5.9604	µg/L	5.9604	ppb	21:53:35
1	Sc 361.383	1804309.0	1804309.0	102.81	%			21:53:47
1	Y 371.029	1125402.6	1125402.6	105.77	%			21:53:47
1	Ag 328.068†	3788.3	237.8	0.7849	µg/L	0.7849	ppb	21:53:49
1	As 188.979†	-9.8	8.2	6.2669	µg/L	6.2669	ppb	21:54:09
1	B 249.677†	3471.1	146.0	2.3677	µg/L	2.3677	ppb	21:53:49
1	Ba 233.527†	16630.8	16339.2	70.975	µg/L	70.975	ppb	21:53:49
1	Be 313.107†	3548.3	4237.1	1.2511	µg/L	1.2511	ppb	21:53:49
1	Cd 226.502†	105.7	212.8	0.0119	µg/L	0.0119	ppb	21:54:09
1	Co 228.616†	104.8	274.3	3.0621	µg/L	3.0621	ppb	21:54:09
1	Cr 267.716†	3962.7	3676.0	31.368	µg/L	31.368	ppb	21:53:49
1	Cu 324.752†	3766.4	874.7	5.6708	µg/L	5.6708	ppb	21:53:49
1	Mn 257.610†	427917.7	416066.1	556.06	µg/L	556.06	ppb	21:53:47
1	Mo 202.031†	2.5	37.2	1.7493	µg/L	1.7493	ppb	21:54:09
1	Ni 231.604†	1438.3	1477.0	18.577	µg/L	18.577	ppb	21:54:09
1	P 214.914†	550.7	530.7	118.01	µg/L	118.01	ppb	21:54:09
1	Pb 220.353†	211.9	109.1	7.2308	µg/L	7.2308	ppb	21:54:09
1	S 181.975 Axial†	323.3	226.8	185.92	µg/L	185.92	ppb	21:54:09
1	Sb 206.836†	77.8	-2.4	-0.9439	µg/L	-0.9439	ppb	21:54:09
1	Se 196.026†	11.7	-2.2	3.87	µg/L	3.87	ppb	21:54:09
1	SiO2†	93903.5	89588.2	9584.6	µg/L	9584.6	ppb	21:53:49
1	Si 251.611†	282835.2	274169.2	4437.7	µg/L	4437.7	ppb	21:53:49
1	Sn 189.927†	5.9	8.3	2.3283	µg/L	2.3283	ppb	21:54:09
1	Ti 334.940†	534673.2	519198.8	520.13	µg/L	520.13	ppb	21:53:47
1	Tl 190.801†	-174.9	-53.1	-0.3803	µg/L	-0.3803	ppb	21:54:09
1	U 409.014†	-1402.2	-1080.2	-66.350	µg/L	-66.350	ppb	21:53:49
1	V 292.402†	3231.6	2833.5	13.198	µg/L	13.198	ppb	21:53:49
1	Zn 213.857†	12420.6	11557.1	70.415	µg/L	70.415	ppb	21:53:49
2	Sc RADIAL	157067.7	157067.7	106	%			21:53:37
2	Al 396.153Radial†	21374.4	20180.2	4158.5	µg/L	4158.5	ppb	21:53:39
2	Ca 317.933Radial†	11140.0	9786.8	588.85	µg/L	588.85	ppb	21:53:39
2	Fe 238.204 Radial†	222892.1	209642.1	14107	µg/L	14107	ppb	21:53:37
2	K 766.490 Radial†	6581.0	4881.1	2007.2	µg/L	2007.2	ppb	21:53:39
2	Mg 279.077 IEC†	2079.6	1788.5	721.60	µg/L	721.60	ppb	21:53:39
2	Na 589.592 Radial†	23872.8	21262.1	3226.8	µg/L	3226.8	ppb	21:53:39
2	Sr 421.552†	2410.4	2490.3	5.7402	µg/L	5.7402	ppb	21:53:39
2	Sc 361.383	1822348.0	1822348.0	103.83	%			21:54:11
2	Y 371.029	1135423.0	1135423.0	106.71	%			21:54:11
2	Ag 328.068†	3420.3	-153.0	-0.7795	µg/L	-0.7795	ppb	21:54:13
2	As 188.979†	-6.0	11.9	7.6017	µg/L	7.6017	ppb	21:54:34
2	B 249.677†	3418.7	62.1	0.9992	µg/L	0.9992	ppb	21:54:13
2	Ba 233.527†	16650.0	16197.5	70.355	µg/L	70.355	ppb	21:54:13
2	Be 313.107†	3698.6	4347.6	1.2820	µg/L	1.2820	ppb	21:54:13
2	Cd 226.502†	107.6	213.6	-0.0075	µg/L	-0.0075	ppb	21:54:34
2	Co 228.616†	123.5	291.3	3.2791	µg/L	3.2791	ppb	21:54:34
2	Cr 267.716†	3998.0	3671.8	31.347	µg/L	31.347	ppb	21:54:13
2	Cu 324.752†	3992.5	1056.2	6.4650	µg/L	6.4650	ppb	21:54:13
2	Mn 257.610†	429865.7	413821.9	553.05	µg/L	553.05	ppb	21:54:11
2	Mo 202.031†	-9.4	25.7	1.3934	µg/L	1.3934	ppb	21:54:34
2	Ni 231.604†	1476.8	1500.1	18.868	µg/L	18.868	ppb	21:54:34
2	P 214.914†	549.6	524.3	116.34	µg/L	116.34	ppb	21:54:34
2	Pb 220.353†	242.7	136.8	8.9203	µg/L	8.9203	ppb	21:54:34

2	S 181.975 Axial†	321.7	222.1	182.06 µg/L	182.06 ppb		21:54:34
2	Sb 206.836†	58.3	-22.0	-3.5120 µg/L	-3.5120 ppb		21:54:34
2	Se 196.026†	5.9	-7.9	1.65 µg/L	1.65 ppb		21:54:34
2	SiO2†	94168.4	88939.1	9515.1 µg/L	9515.1 ppb		21:54:13
2	Si 251.611†	284024.4	272591.2	4412.2 µg/L	4412.2 ppb		21:54:13
2	Sn 189.927†	1.8	4.3	2.0458 µg/L	2.0458 ppb		21:54:34
2	Ti 334.940†	537668.4	516935.2	517.86 µg/L	517.86 ppb		21:54:11
2	Tl 190.801†	-157.2	-34.3	2.1077 µg/L	2.1077 ppb		21:54:34
2	U 409.014†	-1540.8	-1200.2	-73.944 µg/L	-73.944 ppb		21:54:13
2	V 292.402†	3249.2	2819.4	13.091 µg/L	13.091 ppb		21:54:13
2	Zn 213.857†	12446.4	11462.4	69.799 µg/L	69.799 ppb		21:54:13
3	Sc RADIAL	155061.8	155061.8	105 %			21:53:41
3	Al 396.153Radial†	21558.6	20616.0	4248.3 µg/L	4248.3 ppb		21:53:43
3	Ca 317.933Radial†	11368.2	10140.0	610.10 µg/L	610.10 ppb		21:53:43
3	Fe 238.204 Radial†	219538.8	209159.0	14074 µg/L	14074 ppb		21:53:41
3	K 766.490 Radial†	6636.4	5014.1	2061.9 µg/L	2061.9 ppb		21:53:43
3	Mg 279.077 IEC†	2054.9	1790.3	722.36 µg/L	722.36 ppb		21:53:43
3	Na 589.592 Radial†	24164.8	21831.2	3313.2 µg/L	3313.2 ppb		21:53:43
3	Sr 421.552†	2413.9	2522.9	5.8152 µg/L	5.8152 ppb		21:53:43
3	Sc 361.383	1816825.2	1816825.2	103.52 %			21:54:36
3	Y 371.029	1132872.1	1132872.1	106.47 %			21:54:36
3	Ag 328.068†	3845.0	267.2	0.9095 µg/L	0.9095 ppb		21:54:38
3	As 188.979†	-9.9	8.1	6.3078 µg/L	6.3078 ppb		21:54:58
3	B 249.677†	3398.7	52.8	0.8482 µg/L	0.8482 ppb		21:54:38
3	Ba 233.527†	16355.7	15962.0	69.330 µg/L	69.330 ppb		21:54:38
3	Be 313.107†	3627.9	4290.2	1.2692 µg/L	1.2692 ppb		21:54:38
3	Cd 226.502†	134.0	239.4	0.1731 µg/L	0.1731 ppb		21:54:58
3	Co 228.616†	109.0	277.8	3.0965 µg/L	3.0965 ppb		21:54:58
3	Cr 267.716†	4137.7	3818.6	32.571 µg/L	32.571 ppb		21:54:38
3	Cu 324.752†	3863.6	943.4	5.9967 µg/L	5.9967 ppb		21:54:38
3	Mn 257.610†	429301.4	414535.3	554.01 µg/L	554.01 ppb		21:54:36
3	Mo 202.031†	13.1	47.4	2.0834 µg/L	2.0834 ppb		21:54:58
3	Ni 231.604†	1461.8	1490.0	18.741 µg/L	18.741 ppb		21:54:58
3	P 214.914†	562.5	538.4	119.74 µg/L	119.74 ppb		21:54:58
3	Pb 220.353†	201.4	97.6	6.5182 µg/L	6.5182 ppb		21:54:58
3	S 181.975 Axial†	323.3	224.6	184.15 µg/L	184.15 ppb		21:54:58
3	Sb 206.836†	77.9	-2.8	-1.0096 µg/L	-1.0096 ppb		21:54:58
3	Se 196.026†	-3.5	-17.0	-1.97 µg/L	-1.97 ppb		21:54:58
3	SiO2†	93227.6	88306.0	9447.4 µg/L	9447.4 ppb		21:54:38
3	Si 251.611†	280769.2	270278.1	4374.8 µg/L	4374.8 ppb		21:54:38
3	Sn 189.927†	-5.2	-2.5	1.5777 µg/L	1.5777 ppb		21:54:58
3	Ti 334.940†	536695.8	517569.7	518.49 µg/L	518.49 ppb		21:54:36
3	Tl 190.801†	-185.5	-62.1	-1.6208 µg/L	-1.6208 ppb		21:54:58
3	U 409.014†	-1297.1	-969.2	-59.459 µg/L	-59.459 ppb		21:54:38
3	V 292.402†	3263.1	2842.4	13.238 µg/L	13.238 ppb		21:54:38
3	Zn 213.857†	12268.7	11327.2	68.967 µg/L	68.967 ppb		21:54:38

Mean Data: 1202065049|962575|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1814494.1	103.39	%	0.527				0.51%
Sc RADIAL	156726.5	106	%	1.0				0.97%
Y 371.029	1131232.6	106.31	%	0.489				0.46%
Ag 328.068†	117.4	0.3050	µg/L	0.94125	0.3050	ppb	0.94125	308.65%
Al 396.153Radial†	20246.5	4172.2	µg/L	70.30	4172.2	ppb	70.30	1.68%
As 188.979†	9.4	6.7255	µg/L	0.75913	6.7255	ppb	0.75913	11.29%
B 249.677†	87.0	1.4050	µg/L	0.83708	1.4050	ppb	0.83708	59.58%
Ba 233.527†	16166.3	70.220	µg/L	0.8307	70.220	ppb	0.8307	1.18%
Be 313.107†	4291.6	1.2674	µg/L	0.01552	1.2674	ppb	0.01552	1.22%
Ca 317.933Radial†	9905.4	595.98	µg/L	12.227	595.98	ppb	12.227	2.05%
Cd 226.502†	222.0	0.0591	µg/L	0.09915	0.0591	ppb	0.09915	167.65%
Co 228.616†	281.1	3.1459	µg/L	0.11666	3.1459	ppb	0.11666	3.71%
Cr 267.716†	3722.1	31.762	µg/L	0.7006	31.762	ppb	0.7006	2.21%
Cu 324.752†	958.1	6.0442	µg/L	0.39920	6.0442	ppb	0.39920	6.60%
Fe 238.204 Radial†	208300.8	14016	µg/L	129.2	14016	ppb	129.2	0.92%
K 766.490 Radial†	4930.7	2027.7	µg/L	29.87	2027.7	ppb	29.87	1.47%
Mg 279.077 IEC†	1763.2	711.30	µg/L	18.505	711.30	ppb	18.505	2.60%
Mn 257.610†	414807.8	554.37	µg/L	1.534	554.37	ppb	1.534	0.28%
Mo 202.031†	36.8	1.7420	µg/L	0.34504	1.7420	ppb	0.34504	19.81%
Na 589.592 Radial†	21427.6	3251.9	µg/L	53.33	3251.9	ppb	53.33	1.64%

Ni 231.604†	1489.1	18.729	µg/L	0.1461	18.729	ppb	0.1461	0.78%
P 214.914†	531.1	118.03	µg/L	1.697	118.03	ppb	1.697	1.44%
Pb 220.353†	114.5	7.5564	µg/L	1.23368	7.5564	ppb	1.23368	16.33%
S 181.975 Axial†	224.5	184.04	µg/L	1.930	184.04	ppb	1.930	1.05%
Sb 206.836†	-9.1	-1.8218	µg/L	1.46411	-1.8218	ppb	1.46411	80.37%
Se 196.026†	-9.0	1.18	µg/L	2.945	1.18	ppb	2.945	248.77%
SiO2†	88944.4	9515.7	µg/L	68.59	9515.7	ppb	68.59	0.72%
Si 251.611†	272346.2	4408.2	µg/L	31.68	4408.2	ppb	31.68	0.72%
Sn 189.927†	3.4	1.9839	µg/L	0.37907	1.9839	ppb	0.37907	19.11%
Sr 421.552†	2533.0	5.8386	µg/L	0.11195	5.8386	ppb	0.11195	1.92%
Ti 334.940†	517901.2	518.83	µg/L	1.170	518.83	ppb	1.170	0.23%
Tl 190.801†	-49.8	0.0355	µg/L	1.89874	0.0355	ppb	1.89874	>999.9%
U 409.014†	-1083.2	-66.584	µg/L	7.2453	-66.584	ppb	7.2453	10.88%
Concentration less than lower limit for U 409.014.								
V 292.402†	2831.8	13.176	µg/L	0.0760	13.176	ppb	0.0760	0.58%
Zn 213.857†	11448.9	69.727	µg/L	0.7267	69.727	ppb	0.7267	1.04%

Sequence No.: 133
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 21:55:06
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	154294.4	154294.4	104	%			21:55:40
1	Al 396.153Radial†	26574.6	25524.1	5236.2	µg/L	5236.2	ppb	21:55:40
1	Ca 317.933Radial†	90160.3	85684.9	5155.5	µg/L	5155.5	ppb	21:55:40
1	Fe 238.204 Radial†	80085.7	76589.6	5153.6	µg/L	5153.6	ppb	21:55:40
1	K 766.490 Radial†	14897.8	12960.8	5330.0	µg/L	5330.0	ppb	21:55:40
1	Mg 279.077 IEC†	13634.4	12894.4	5297.5	µg/L	5297.5	ppb	21:55:40
1	Na 589.592 Radial†	71334.3	67139.0	10190	µg/L	10190	ppb	21:55:40
1	Sr 421.552†	235175.0	225543.4	520.25	µg/L	520.25	ppb	21:55:38
1	Sc 361.383	1792145.7	1792145.7	102.11	%			21:55:53
1	Y 371.029	1068183.7	1068183.7	100.39	%			21:55:53
1	Ag 328.068†	132552.1	126363.3	508.64	µg/L	508.64	ppb	21:55:53
1	As 188.979†	1527.0	1513.1	535.33	µg/L	535.33	ppb	21:56:13
1	B 249.677†	35050.4	31095.1	505.20	µg/L	505.20	ppb	21:55:53
1	Ba 233.527†	119544.3	117233.9	510.87	µg/L	510.87	ppb	21:55:53
1	Be 313.107†	1756115.8	1720578.3	516.50	µg/L	516.50	ppb	21:55:53
1	Cd 226.502†	75932.7	74472.1	511.03	µg/L	511.03	ppb	21:55:53
1	Co 228.616†	38617.1	37990.8	514.09	µg/L	514.09	ppb	21:55:53
1	Cr 267.716†	61641.6	60188.1	507.00	µg/L	507.00	ppb	21:55:53
1	Cu 324.752†	125845.2	120453.3	509.16	µg/L	509.16	ppb	21:55:53
1	Mn 257.610†	390378.0	382128.0	510.53	µg/L	510.53	ppb	21:55:53
1	Mo 202.031†	16239.9	15938.7	507.47	µg/L	507.47	ppb	21:56:13
1	Ni 231.604†	41512.7	40732.0	512.32	µg/L	512.32	ppb	21:55:53
1	P 214.914†	10995.9	10763.5	2558.6	µg/L	2558.6	ppb	21:56:13
1	Pb 220.353†	8635.9	8360.3	513.52	µg/L	513.52	ppb	21:56:13
1	S 181.975 Axial†	1346.6	1231.0	1013.4	µg/L	1013.4	ppb	21:56:13
1	Sb 206.836†	4054.4	3892.5	511.55	µg/L	511.55	ppb	21:56:13
1	Se 196.026†	1328.8	1287.7	518	µg/L	518	ppb	21:56:13
1	SiO2†	53950.7	51081.6	5443.1	µg/L	5443.1	ppb	21:55:53
1	Si 251.611†	162151.2	157848.7	2544.8	µg/L	2544.8	ppb	21:55:53
1	Sn 189.927†	7541.5	7388.0	513.20	µg/L	513.20	ppb	21:56:13
1	Ti 334.940†	519676.7	508042.3	508.31	µg/L	508.31	ppb	21:55:53
1	Tl 190.801†	3761.7	3801.0	518.43	µg/L	518.43	ppb	21:56:13
1	U 409.014†	7489.4	7618.2	508.04	µg/L	508.04	ppb	21:55:53
1	V 292.402†	97565.2	95237.4	512.37	µg/L	512.37	ppb	21:55:53
1	Zn 213.857†	84987.9	82705.5	508.92	µg/L	508.92	ppb	21:55:53
2	Sc RADIAL	154139.5	154139.5	104	%			21:55:44
2	Al 396.153Radial†	26526.1	25503.2	5231.9	µg/L	5231.9	ppb	21:55:44
2	Ca 317.933Radial†	89656.4	85288.4	5131.6	µg/L	5131.6	ppb	21:55:44
2	Fe 238.204 Radial†	79647.8	76246.8	5130.5	µg/L	5130.5	ppb	21:55:44
2	K 766.490 Radial†	14618.0	12706.8	5225.4	µg/L	5225.4	ppb	21:55:44
2	Mg 279.077 IEC†	13611.1	12885.1	5293.7	µg/L	5293.7	ppb	21:55:44
2	Na 589.592 Radial†	71149.5	67030.4	10174	µg/L	10174	ppb	21:55:44
2	Sr 421.552†	232703.2	223399.3	515.31	µg/L	515.31	ppb	21:55:42
2	Sc 361.383	1789464.7	1789464.7	101.96	%			21:56:16
2	Y 371.029	1066488.4	1066488.4	100.23	%			21:56:16
2	Ag 328.068†	131940.0	125957.5	507.00	µg/L	507.00	ppb	21:56:16
2	As 188.979†	1528.6	1517.0	536.65	µg/L	536.65	ppb	21:56:36
2	B 249.677†	34895.7	30994.8	503.58	µg/L	503.58	ppb	21:56:16
2	Ba 233.527†	118628.2	116510.7	507.72	µg/L	507.72	ppb	21:56:16
2	Be 313.107†	1741511.1	1708830.8	512.98	µg/L	512.98	ppb	21:56:16
2	Cd 226.502†	75549.6	74207.8	509.21	µg/L	509.21	ppb	21:56:16
2	Co 228.616†	38163.0	37602.1	508.83	µg/L	508.83	ppb	21:56:16
2	Cr 267.716†	61122.9	59769.8	503.48	µg/L	503.48	ppb	21:56:16
2	Cu 324.752†	124496.0	119314.7	504.35	µg/L	504.35	ppb	21:56:16
2	Mn 257.610†	386970.3	379358.5	506.83	µg/L	506.83	ppb	21:56:16
2	Mo 202.031†	16233.9	15956.7	508.04	µg/L	508.04	ppb	21:56:36
2	Ni 231.604†	41119.4	40407.1	508.23	µg/L	508.23	ppb	21:56:16
2	P 214.914†	10989.2	10773.1	2561.0	µg/L	2561.0	ppb	21:56:36
2	Pb 220.353†	8643.0	8380.0	514.72	µg/L	514.72	ppb	21:56:36

2	S 181.975 Axial†	1359.5	1245.7	1025.4 µg/L	1025.4 ppb	21:56:36
2	Sb 206.836†	4049.0	3893.1	511.69 µg/L	511.69 ppb	21:56:36
2	Se 196.026†	1317.3	1278.4	514 µg/L	514 ppb	21:56:36
2	SiO2†	53326.2	50548.3	5386.0 µg/L	5386.0 ppb	21:56:16
2	Si 251.611†	160608.9	156573.9	2524.2 µg/L	2524.2 ppb	21:56:16
2	Sn 189.927†	7551.9	7409.3	514.66 µg/L	514.66 ppb	21:56:36
2	Ti 334.940†	515547.5	504754.9	505.02 µg/L	505.02 ppb	21:56:16
2	Tl 190.801†	3776.5	3821.0	521.10 µg/L	521.10 ppb	21:56:36
2	U 409.014†	7429.3	7570.3	504.91 µg/L	504.91 ppb	21:56:16
2	V 292.402†	97037.7	94863.1	510.38 µg/L	510.38 ppb	21:56:16
2	Zn 213.857†	84147.1	82005.5	504.61 µg/L	504.61 ppb	21:56:16
3	Sc RADIAL	153182.2	153182.2	104 %		21:55:48
3	Al 396.153Radial†	26522.7	25658.8	5263.8 µg/L	5263.8 ppb	21:55:48
3	Ca 317.933Radial†	90065.7	86220.7	5187.7 µg/L	5187.7 ppb	21:55:48
3	Fe 238.204 Radial†	79830.0	76899.9	5174.5 µg/L	5174.5 ppb	21:55:48
3	K 766.490 Radial†	14760.3	12931.8	5318.0 µg/L	5318.0 ppb	21:55:48
3	Mg 279.077 IEC†	13641.7	12996.2	5339.4 µg/L	5339.4 ppb	21:55:48
3	Na 589.592 Radial†	71622.4	67913.2	10308 µg/L	10308 ppb	21:55:48
3	Sr 421.552†	234112.5	226154.0	521.66 µg/L	521.66 ppb	21:55:46
3	Sc 361.383	1790915.2	1790915.2	102.04 %		21:56:39
3	Y 371.029	1067138.2	1067138.2	100.29 %		21:56:39
3	Ag 328.068†	132157.3	126065.6	507.41 µg/L	507.41 ppb	21:56:39
3	As 188.979†	1529.3	1516.4	536.49 µg/L	536.49 ppb	21:56:59
3	B 249.677†	35023.2	31092.0	505.16 µg/L	505.16 ppb	21:56:39
3	Ba 233.527†	118905.2	116687.9	508.49 µg/L	508.49 ppb	21:56:39
3	Be 313.107†	1746224.0	1712066.0	513.94 µg/L	513.94 ppb	21:56:39
3	Cd 226.502†	75563.2	74161.2	508.89 µg/L	508.89 ppb	21:56:39
3	Co 228.616†	38347.2	37752.2	510.86 µg/L	510.86 ppb	21:56:39
3	Cr 267.716†	61374.6	59967.8	505.16 µg/L	505.16 ppb	21:56:39
3	Cu 324.752†	125155.9	119862.5	506.66 µg/L	506.66 ppb	21:56:39
3	Mn 257.610†	388423.1	380474.8	508.32 µg/L	508.32 ppb	21:56:39
3	Mo 202.031†	16392.1	16098.9	512.56 µg/L	512.56 ppb	21:56:59
3	Ni 231.604†	41216.2	40469.3	509.01 µg/L	509.01 ppb	21:56:39
3	P 214.914†	11074.5	10847.9	2578.8 µg/L	2578.8 ppb	21:56:59
3	Pb 220.353†	8704.5	8433.3	518.01 µg/L	518.01 ppb	21:56:59
3	S 181.975 Axial†	1382.5	1267.2	1043.1 µg/L	1043.1 ppb	21:56:59
3	Sb 206.836†	4054.0	3894.8	511.96 µg/L	511.96 ppb	21:56:59
3	Se 196.026†	1328.3	1288.2	518 µg/L	518 ppb	21:56:59
3	SiO2†	53621.5	50795.3	5412.3 µg/L	5412.3 ppb	21:56:39
3	Si 251.611†	161322.3	157145.5	2533.3 µg/L	2533.3 ppb	21:56:39
3	Sn 189.927†	7628.0	7477.9	519.41 µg/L	519.41 ppb	21:56:59
3	Ti 334.940†	516862.6	505634.1	505.90 µg/L	505.90 ppb	21:56:39
3	Tl 190.801†	3783.5	3824.8	521.61 µg/L	521.61 ppb	21:56:59
3	U 409.014†	7250.6	7389.2	493.55 µg/L	493.55 ppb	21:56:39
3	V 292.402†	97042.2	94790.5	510.03 µg/L	510.03 ppb	21:56:39
3	Zn 213.857†	84564.3	82347.5	506.72 µg/L	506.72 ppb	21:56:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1790841.9	102.04	%	0.076				0.07%
Sc RADIAL	153872.0	104	%	0.4				0.39%
Y 371.029	1067270.1	100.30	%	0.080				0.08%
Ag 328.068†	126128.8	507.68	µg/L	0.853	507.68	ppb	0.853	0.17%
QC value within limits for Ag 328.068 Recovery = 101.54%								
Al 396.153Radial†	25562.0	5244.0	µg/L	17.28	5244.0	ppb	17.28	0.33%
QC value within limits for Al 396.153Radial Recovery = 104.88%								
As 188.979†	1515.5	536.15	µg/L	0.721	536.15	ppb	0.721	0.13%
QC value within limits for As 188.979 Recovery = 107.23%								
B 249.677†	31060.6	504.65	µg/L	0.922	504.65	ppb	0.922	0.18%
QC value within limits for B 249.677 Recovery = 100.93%								
Ba 233.527†	116810.8	509.03	µg/L	1.641	509.03	ppb	1.641	0.32%
QC value within limits for Ba 233.527 Recovery = 101.81%								
Be 313.107†	1713825.0	514.47	µg/L	1.822	514.47	ppb	1.822	0.35%
QC value within limits for Be 313.107 Recovery = 102.89%								
Ca 317.933Radial†	85731.3	5158.2	µg/L	28.15	5158.2	ppb	28.15	0.55%
QC value within limits for Ca 317.933Radial Recovery = 103.16%								
Cd 226.502†	74280.4	509.71	µg/L	1.153	509.71	ppb	1.153	0.23%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	37781.7	511.26	µg/L	2.652	511.26	ppb	2.652	0.52%

QC value within limits for Co 228.616 Recovery = 102.25%

Cr 267.716†	59975.2	505.21 µg/L	1.762	505.21 ppb	1.762	0.35%

QC value within limits for Cr 267.716 Recovery = 101.04%

Cu 324.752†	119876.8	506.72 µg/L	2.404	506.72 ppb	2.404	0.47%

QC value within limits for Cu 324.752 Recovery = 101.34%

Fe 238.204 Radial†	76578.7	5152.9 µg/L	21.98	5152.9 ppb	21.98	0.43%

QC value within limits for Fe 238.204 Radial Recovery = 103.06%

K 766.490 Radial†	12866.5	5291.1 µg/L	57.22	5291.1 ppb	57.22	1.08%

QC value within limits for K 766.490 Radial Recovery = 105.82%

Mg 279.077 IEC†	12925.2	5310.2 µg/L	25.34	5310.2 ppb	25.34	0.48%

QC value within limits for Mg 279.077 IEC Recovery = 106.20%

Mn 257.610†	380653.8	508.56 µg/L	1.862	508.56 ppb	1.862	0.37%

QC value within limits for Mn 257.610 Recovery = 101.71%

Mo 202.031†	15998.1	509.35 µg/L	2.791	509.35 ppb	2.791	0.55%

QC value within limits for Mo 202.031 Recovery = 101.87%

Na 589.592 Radial†	67360.9	10224 µg/L	73.1	10224 ppb	73.1	0.71%

QC value within limits for Na 589.592 Radial Recovery = 102.24%

Ni 231.604†	40536.1	509.85 µg/L	2.169	509.85 ppb	2.169	0.43%

QC value within limits for Ni 231.604 Recovery = 101.97%

P 214.914†	10794.8	2566.1 µg/L	11.01	2566.1 ppb	11.01	0.43%

QC value within limits for P 214.914 Recovery = 102.64%

Pb 220.353†	8391.2	515.42 µg/L	2.326	515.42 ppb	2.326	0.45%

QC value within limits for Pb 220.353 Recovery = 103.08%

S 181.975 Axial†	1248.0	1027.3 µg/L	14.93	1027.3 ppb	14.93	1.45%

QC value within limits for S 181.975 Axial Recovery = 102.73%

Sb 206.836†	3893.5	511.74 µg/L	0.208	511.74 ppb	0.208	0.04%

QC value within limits for Sb 206.836 Recovery = 102.35%

Se 196.026†	1284.8	517 µg/L	2.2	517 ppb	2.2	0.43%

QC value within limits for Se 196.026 Recovery = 103.31%

SiO2†	50808.4	5413.8 µg/L	28.58	5413.8 ppb	28.58	0.53%

QC value within limits for SiO2 Recovery = 101.24%

Si 251.611†	157189.4	2534.1 µg/L	10.35	2534.1 ppb	10.35	0.41%

QC value within limits for Si 251.611 Recovery = 101.36%

Sn 189.927†	7425.1	515.76 µg/L	3.247	515.76 ppb	3.247	0.63%

QC value within limits for Sn 189.927 Recovery = 103.15%

Sr 421.552†	225032.2	519.08 µg/L	3.337	519.08 ppb	3.337	0.64%

QC value within limits for Sr 421.552 Recovery = 103.82%

Ti 334.940†	506143.8	506.41 µg/L	1.704	506.41 ppb	1.704	0.34%

QC value within limits for Ti 334.940 Recovery = 101.28%

Tl 190.801†	3815.6	520.38 µg/L	1.706	520.38 ppb	1.706	0.33%

QC value within limits for Tl 190.801 Recovery = 104.08%

U 409.014†	7525.9	502.17 µg/L	7.627	502.17 ppb	7.627	1.52%

QC value within limits for U 409.014 Recovery = 100.43%

V 292.402†	94963.7	510.93 µg/L	1.262	510.93 ppb	1.262	0.25%

QC value within limits for V 292.402 Recovery = 102.19%

Zn 213.857†	82352.8	506.75 µg/L	2.155	506.75 ppb	2.155	0.43%

QC value within limits for Zn 213.857 Recovery = 101.35%

All analyte(s) passed QC.

Sequence No.: 134 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 21:57:07**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **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	152056.8	152056.8	103	%			21:57:36
1	Al 396.153Radial†	-29.9	33.8	6.9443	µg/L	6.9443	ppb	21:57:56
1	Ca 317.933Radial†	728.9	10.7	0.6431	µg/L	0.6431	ppb	21:57:56
1	Fe 238.204 Radial†	173.0	27.5	1.8476	µg/L	1.8476	ppb	21:57:56
1	K 766.490 Radial†	1690.6	330.8	136.12	µg/L	136.12	ppb	21:57:36
1	Mg 279.077 IEC†	175.4	1.8	0.7410	µg/L	0.7410	ppb	21:57:56
1	Na 589.592 Radial†	1561.5	311.5	47.179	µg/L	47.179	ppb	21:57:36
1	Sr 421.552†	-179.5	47.1	0.1087	µg/L	0.1087	ppb	21:57:36
1	Sc 361.383	1783992.4	1783992.4	101.65	%			21:58:44
1	Y 371.029	1075751.3	1075751.3	101.10	%			21:58:44
1	Ag 328.068†	3576.6	71.6	0.2901	µg/L	0.2901	ppb	21:58:46
1	As 188.979†	-3.5	14.3	4.9795	µg/L	4.9795	ppb	21:59:06
1	B 249.677†	3336.2	51.8	0.8450	µg/L	0.8450	ppb	21:59:06
1	Ba 233.527†	-151.1	13.5	0.0588	µg/L	0.0588	ppb	21:59:06
1	Be 313.107†	-810.4	-11.7	-0.0019	µg/L	-0.0019	ppb	21:58:46
1	Cd 226.502†	-94.0	17.5	0.1202	µg/L	0.1202	ppb	21:59:06
1	Co 228.616†	-181.2	-5.8	-0.0786	µg/L	-0.0786	ppb	21:59:06
1	Cr 267.716†	172.7	-8.6	-0.0768	µg/L	-0.0768	ppb	21:59:06
1	Cu 324.752†	2938.4	101.9	0.4338	µg/L	0.4338	ppb	21:58:46
1	Mn 257.610†	246.2	66.6	0.0890	µg/L	0.0890	ppb	21:59:06
1	Mo 202.031†	-16.1	18.9	0.6011	µg/L	0.6011	ppb	21:59:06
1	Ni 231.604†	-57.5	21.3	0.2681	µg/L	0.2681	ppb	21:59:06
1	P 214.914†	-9.8	-14.6	-3.4917	µg/L	-3.4917	ppb	21:59:06
1	Pb 220.353†	55.0	-42.9	-2.6271	µg/L	-2.6271	ppb	21:59:06
1	S 181.975 Axial†	78.3	-10.6	-8.7149	µg/L	-8.7149	ppb	21:59:06
1	Sb 206.836†	87.8	8.3	1.1028	µg/L	1.1028	ppb	21:59:06
1	Se 196.026†	17.9	4.0	1.63	µg/L	1.63	ppb	21:59:06
1	SiO2†	1752.7	-28.9	-3.1230	µg/L	-3.1230	ppb	21:59:06
1	Si 251.611†	848.4	-114.0	-1.8602	µg/L	-1.8602	ppb	21:58:46
1	Sn 189.927†	14.2	16.5	1.1416	µg/L	1.1416	ppb	21:59:06
1	Ti 334.940†	919.4	18.9	0.0168	µg/L	0.0168	ppb	21:58:46
1	Tl 190.801†	-119.2	-0.2	-0.0269	µg/L	-0.0269	ppb	21:59:06
1	U 409.014†	-203.1	83.9	5.2519	µg/L	5.2519	ppb	21:58:46
1	V 292.402†	303.0	-11.8	-0.0533	µg/L	-0.0533	ppb	21:58:46
1	Zn 213.857†	586.9	52.9	0.3258	µg/L	0.3258	ppb	21:59:06
2	Sc RADIAL	149157.8	149157.8	101	%			21:57:58
2	Al 396.153Radial†	-53.4	9.9	2.0434	µg/L	2.0434	ppb	21:58:18
2	Ca 317.933Radial†	740.8	36.2	2.1810	µg/L	2.1810	ppb	21:58:18
2	Fe 238.204 Radial†	179.0	36.7	2.4679	µg/L	2.4679	ppb	21:58:18
2	K 766.490 Radial†	1759.9	431.4	177.54	µg/L	177.54	ppb	21:57:58
2	Mg 279.077 IEC†	166.5	-3.8	-1.5602	µg/L	-1.5602	ppb	21:58:18
2	Na 589.592 Radial†	1389.5	170.5	25.735	µg/L	25.735	ppb	21:57:58
2	Sr 421.552†	-302.3	-77.9	-0.1798	µg/L	-0.1798	ppb	21:57:58
2	Sc 361.383	1768634.3	1768634.3	100.77	%			21:59:08
2	Y 371.029	1068016.6	1068016.6	100.37	%			21:59:08
2	Ag 328.068†	3393.0	-80.1	-0.3250	µg/L	-0.3250	ppb	21:59:10
2	As 188.979†	-22.6	-4.8	-1.6666	µg/L	-1.6666	ppb	21:59:31
2	B 249.677†	3321.8	66.0	1.0763	µg/L	1.0763	ppb	21:59:31
2	Ba 233.527†	-143.0	20.3	0.0883	µg/L	0.0883	ppb	21:59:31
2	Be 313.107†	-926.5	-133.8	-0.0420	µg/L	-0.0420	ppb	21:59:10
2	Cd 226.502†	-96.6	14.1	0.0966	µg/L	0.0966	ppb	21:59:31
2	Co 228.616†	-179.8	-6.0	-0.0814	µg/L	-0.0814	ppb	21:59:31
2	Cr 267.716†	192.8	12.7	0.1124	µg/L	0.1124	ppb	21:59:31
2	Cu 324.752†	2968.1	156.5	0.6544	µg/L	0.6544	ppb	21:59:10
2	Mn 257.610†	225.2	47.9	0.0641	µg/L	0.0641	ppb	21:59:31
2	Mo 202.031†	-32.4	2.6	0.0821	µg/L	0.0821	ppb	21:59:31
2	Ni 231.604†	-93.5	-14.9	-0.1869	µg/L	-0.1869	ppb	21:59:31
2	P 214.914†	-2.6	-7.6	-1.8058	µg/L	-1.8058	ppb	21:59:31
2	Pb 220.353†	74.4	-23.1	-1.4090	µg/L	-1.4090	ppb	21:59:31

2	S 181.975 Axial†	96.1	7.7	6.3073 µg/L	6.3073 ppb	21:59:31
2	Sb 206.836†	67.9	-10.7	-1.3991 µg/L	-1.3991 ppb	21:59:31
2	Se 196.026†	9.1	-4.5	-1.82 µg/L	-1.82 ppb	21:59:31
2	SiO2†	1786.4	19.5	2.0764 µg/L	2.0764 ppb	21:59:31
2	Si 251.611†	937.8	-18.0	-0.2973 µg/L	-0.2973 ppb	21:59:10
2	Sn 189.927†	8.2	10.7	0.7412 µg/L	0.7412 ppb	21:59:31
2	Ti 334.940†	999.7	106.4	0.1093 µg/L	0.1093 ppb	21:59:10
2	Tl 190.801†	-98.4	19.4	2.6160 µg/L	2.6160 ppb	21:59:31
2	U 409.014†	-386.0	-99.3	-6.2147 µg/L	-6.2147 ppb	21:59:10
2	V 292.402†	332.4	20.1	0.1032 µg/L	0.1032 ppb	21:59:10
2	Zn 213.857†	564.1	35.2	0.2187 µg/L	0.2187 ppb	21:59:31
3	Sc RADIAL	150317.5	150317.5	102 %		21:58:20
3	Al 396.153Radial†	-48.6	15.0	3.0684 µg/L	3.0684 ppb	21:58:40
3	Ca 317.933Radial†	737.1	26.9	1.6183 µg/L	1.6183 ppb	21:58:40
3	Fe 238.204 Radial†	188.3	44.5	2.9921 µg/L	2.9921 ppb	21:58:40
3	K 766.490 Radial†	1747.3	405.6	166.92 µg/L	166.92 ppb	21:58:20
3	Mg 279.077 IEC†	188.8	16.9	6.9519 µg/L	6.9519 ppb	21:58:40
3	Na 589.592 Radial†	1477.3	246.3	37.246 µg/L	37.246 ppb	21:58:20
3	Sr 421.552†	-146.6	77.4	0.1786 µg/L	0.1786 ppb	21:58:20
3	Sc 361.383	1780838.0	1780838.0	101.47 %		21:59:33
3	Y 371.029	1073829.1	1073829.1	100.92 %		21:59:33
3	Ag 328.068†	3636.3	136.6	0.5514 µg/L	0.5514 ppb	21:59:35
3	As 188.979†	-6.2	11.6	4.0574 µg/L	4.0574 ppb	21:59:55
3	B 249.677†	3378.4	99.2	1.6177 µg/L	1.6177 ppb	21:59:55
3	Ba 233.527†	-126.5	37.5	0.1638 µg/L	0.1638 ppb	21:59:55
3	Be 313.107†	-979.5	-179.7	-0.0545 µg/L	-0.0545 ppb	21:59:35
3	Cd 226.502†	-100.9	10.5	0.0720 µg/L	0.0720 ppb	21:59:55
3	Co 228.616†	-189.5	-14.4	-0.1944 µg/L	-0.1944 ppb	21:59:55
3	Cr 267.716†	181.5	0.3	0.0043 µg/L	0.0043 ppb	21:59:55
3	Cu 324.752†	2830.7	0.9	0.0026 µg/L	0.0026 ppb	21:59:35
3	Mn 257.610†	207.6	29.1	0.0386 µg/L	0.0386 ppb	21:59:55
3	Mo 202.031†	-14.4	20.6	0.6561 µg/L	0.6561 ppb	21:59:55
3	Ni 231.604†	-95.8	-16.5	-0.2080 µg/L	-0.2080 ppb	21:59:55
3	P 214.914†	-9.9	-14.8	-3.5355 µg/L	-3.5355 ppb	21:59:55
3	Pb 220.353†	99.1	0.7	0.0486 µg/L	0.0486 ppb	21:59:55
3	S 181.975 Axial†	98.6	9.5	7.8064 µg/L	7.8064 ppb	21:59:55
3	Sb 206.836†	84.6	5.3	0.7039 µg/L	0.7039 ppb	21:59:55
3	Se 196.026†	16.0	2.2	0.890 µg/L	0.890 ppb	21:59:55
3	SiO2†	1752.1	-26.4	-2.8434 µg/L	-2.8434 ppb	21:59:55
3	Si 251.611†	917.9	-44.1	-0.7218 µg/L	-0.7218 ppb	21:59:35
3	Sn 189.927†	-3.6	-1.0	-0.0693 µg/L	-0.0693 ppb	21:59:55
3	Ti 334.940†	874.2	-24.0	-0.0239 µg/L	-0.0239 ppb	21:59:35
3	Tl 190.801†	-119.4	-0.6	-0.0688 µg/L	-0.0688 ppb	21:59:55
3	U 409.014†	-316.7	-28.4	-1.7258 µg/L	-1.7258 ppb	21:59:35
3	V 292.402†	487.5	170.7	0.9114 µg/L	0.9114 ppb	21:59:35
3	Zn 213.857†	553.0	20.5	0.1281 µg/L	0.1281 ppb	21:59:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1777821.6	101.30	%	0.462				0.46%
Sc RADIAL	150510.7	102	%	1.0				0.97%
Y 371.029	1072532.3	100.80	%	0.378				0.38%
Ag 328.068†	42.7	0.1722	µg/L	0.44996	0.1722	ppb	0.44996	261.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.6	4.0187	µg/L	2.58499	4.0187	ppb	2.58499	64.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.4567	µg/L	3.60055	2.4567	ppb	3.60055	146.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	72.3	1.1797	µg/L	0.39657	1.1797	ppb	0.39657	33.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.7	0.1036	µg/L	0.05417	0.1036	ppb	0.05417	52.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-108.4	-0.0328	µg/L	0.02747	-0.0328	ppb	0.02747	83.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	24.6	1.4808	µg/L	0.77812	1.4808	ppb	0.77812	52.55%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.1	0.0963	µg/L	0.02414	0.0963	ppb	0.02414	25.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-8.7	-0.1181	µg/L	0.06603	-0.1181	ppb	0.06603	55.89%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.5      0.0133 µg/L       0.09493      0.0133 ppb        0.09493 713.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               86.4      0.3636 µg/L       0.33149      0.3636 ppb        0.33149  91.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        36.2      2.4359 µg/L       0.57293      2.4359 ppb        0.57293  23.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        389.2      160.19 µg/L        21.514      160.19 ppb         21.514  13.43%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            5.0      2.0442 µg/L       4.40314      2.0442 ppb        4.40314 215.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               47.9      0.0639 µg/L       0.02524      0.0639 ppb        0.02524  39.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               14.0      0.4465 µg/L       0.31673      0.4465 ppb        0.31673  70.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       242.8      36.720 µg/L       10.7316      36.720 ppb        10.7316  29.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.4     -0.0422 µg/L       0.26900     -0.0422 ppb        0.26900 636.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.3     -2.9443 µg/L       0.98621     -2.9443 ppb        0.98621  33.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -21.7     -1.3292 µg/L       1.33966     -1.3292 ppb        1.33966 100.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.2      1.7996 µg/L       9.13661      1.7996 ppb        9.13661 507.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.0      0.1358 µg/L       1.34421      0.1358 ppb        1.34421 989.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.6       0.233 µg/L        1.8134       0.233 ppb         1.8134 779.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -11.9     -1.2967 µg/L       2.92449     -1.2967 ppb        2.92449 225.53%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -58.7     -0.9598 µg/L       0.80819     -0.9598 ppb        0.80819  84.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.7      0.6045 µg/L       0.61693      0.6045 ppb        0.61693 102.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               15.6      0.0359 µg/L       0.19001      0.0359 ppb        0.19001 529.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.8      0.0341 µg/L       0.06826      0.0341 ppb        0.06826 200.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.8401 µg/L       1.53814      0.8401 ppb        1.53814 183.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -14.6     -0.8962 µg/L       5.77816     -0.8962 ppb        5.77816 644.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               59.6      0.3204 µg/L       0.51772      0.3204 ppb        0.51772 161.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               36.2      0.2242 µg/L       0.09897      0.2242 ppb        0.09897  44.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 138
Sample ID: 248517001|962575|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 322
Date Collected: 3/30/2010 22:06:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248517001|962575|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151106.9	151106.9	102	%			22:06:40
1	Al 396.153Radial†	141984.2	138967.8	28637	µg/L	28637	ppb	22:06:40
1	Ca 317.933Radial†	276345.0	269653.9	16224	µg/L	16224	ppb	22:06:40
1	Fe 238.204 Radial†	867389.8	848438.1	57090	µg/L	57090	ppb	22:06:38
1	K 766.490 Radial†	20230.6	18479.1	7595.2	µg/L	7595.2	ppb	22:06:40
1	Mg 279.077 IEC†	17195.7	16654.0	6782.8	µg/L	6782.8	ppb	22:06:40
1	Na 589.592 Radial†	4414.5	3112.1	465.80	µg/L	465.80	ppb	22:06:40
1	Sr 421.552†	53585.5	52645.1	121.32	µg/L	121.32	ppb	22:06:40
1	Sc 361.383	1738565.1	1738565.1	99.059	%			22:06:53
1	Y 371.029	1137238.7	1137238.7	106.88	%			22:06:53
1	Ag 328.068†	11088.8	7747.1	29.615	µg/L	29.615	ppb	22:06:53
1	As 188.979†	5.4	23.1	22.086	µg/L	22.086	ppb	22:07:13
1	B 249.677†	5344.0	2164.4	35.225	µg/L	35.225	ppb	22:06:53
1	Ba 233.527†	103634.0	104780.4	455.54	µg/L	455.54	ppb	22:06:53
1	Be 313.107†	17951.6	18907.7	5.6053	µg/L	5.6053	ppb	22:06:53
1	Cd 226.502†	881.5	999.9	0.9008	µg/L	0.9008	ppb	22:07:13
1	Co 228.616†	1184.0	1367.7	15.989	µg/L	15.989	ppb	22:07:13
1	Cr 267.716†	15096.9	15061.7	128.14	µg/L	128.14	ppb	22:07:13
1	Cu 324.752†	10176.0	7483.7	39.856	µg/L	39.856	ppb	22:06:53
1	Mn 257.610†	2620105.0	2644814.2	3534.7	µg/L	3534.7	ppb	22:06:53
1	Mo 202.031†	-7.3	27.4	3.2784	µg/L	3.2784	ppb	22:07:13
1	Ni 231.604†	6265.3	6402.6	80.531	µg/L	80.531	ppb	22:07:13
1	P 214.914†	4609.4	4648.2	1075.9	µg/L	1075.9	ppb	22:07:13
1	Pb 220.353†	1100.6	1014.1	64.618	µg/L	64.618	ppb	22:07:13
1	S 181.975 Axial†	1145.3	1068.5	875.92	µg/L	875.92	ppb	22:07:13
1	Sb 206.836†	68.5	-9.0	-3.8580	µg/L	-3.8580	ppb	22:07:13
1	Se 196.026†	-15.8	-29.5	7.77	µg/L	7.77	ppb	22:07:13
1	SiO2†	548829.8	552289.3	59087	µg/L	59087	ppb	22:06:53
1	Si 251.611†	1681775.1	1696799.3	27465	µg/L	27465	ppb	22:06:53
1	Sn 189.927†	6.2	8.8	6.8073	µg/L	6.8073	ppb	22:07:13
1	Ti 334.940†	1817770.4	1834149.3	1837.4	µg/L	1837.4	ppb	22:06:53
1	Tl 190.801†	-351.9	-238.2	-3.9916	µg/L	-3.9916	ppb	22:07:13
1	U 409.014†	-3892.8	-3646.0	-213.72	µg/L	-213.72	ppb	22:06:53
1	V 292.402†	13795.5	13616.6	64.968	µg/L	64.968	ppb	22:07:13
1	Zn 213.857†	43789.4	43680.7	265.47	µg/L	265.47	ppb	22:06:53
2	Sc RADIAL	151304.1	151304.1	102	%			22:06:44
2	Al 396.153Radial†	141308.2	138126.3	28464	µg/L	28464	ppb	22:06:44
2	Ca 317.933Radial†	274801.9	267793.9	16113	µg/L	16113	ppb	22:06:44
2	Fe 238.204 Radial†	866612.7	846572.7	56965	µg/L	56965	ppb	22:06:42
2	K 766.490 Radial†	20376.1	18595.4	7643.2	µg/L	7643.2	ppb	22:06:44
2	Mg 279.077 IEC†	17079.0	16518.1	6727.2	µg/L	6727.2	ppb	22:06:44
2	Na 589.592 Radial†	4521.8	3211.4	480.83	µg/L	480.83	ppb	22:06:44
2	Sr 421.552†	53322.2	52319.5	120.57	µg/L	120.57	ppb	22:06:44
2	Sc 361.383	1743290.4	1743290.4	99.328	%			22:07:15
2	Y 371.029	1141015.6	1141015.6	107.23	%			22:07:15
2	Ag 328.068†	11633.0	8264.6	31.684	µg/L	31.684	ppb	22:07:15
2	As 188.979†	5.7	23.5	22.168	µg/L	22.168	ppb	22:07:36
2	B 249.677†	5356.7	2162.6	35.194	µg/L	35.194	ppb	22:07:15
2	Ba 233.527†	104251.7	105118.8	457.02	µg/L	457.02	ppb	22:07:15
2	Be 313.107†	17994.2	18901.4	5.6063	µg/L	5.6063	ppb	22:07:15
2	Cd 226.502†	811.6	927.1	0.4140	µg/L	0.4140	ppb	22:07:36
2	Co 228.616†	1209.8	1390.4	16.305	µg/L	16.305	ppb	22:07:36
2	Cr 267.716†	15097.8	15021.3	127.78	µg/L	127.78	ppb	22:07:36
2	Cu 324.752†	10357.2	7638.3	40.496	µg/L	40.496	ppb	22:07:15
2	Mn 257.610†	2635118.6	2652760.0	3545.3	µg/L	3545.3	ppb	22:07:15
2	Mo 202.031†	-14.3	20.4	3.0482	µg/L	3.0482	ppb	22:07:36
2	Ni 231.604†	6231.3	6351.4	79.886	µg/L	79.886	ppb	22:07:36
2	P 214.914†	4620.0	4646.2	1075.5	µg/L	1075.5	ppb	22:07:36
2	Pb 220.353†	1137.4	1048.1	66.695	µg/L	66.695	ppb	22:07:36

2	S 181.975 Axial†	1145.9	1066.0	873.83 µg/L	873.83 ppb	22:07:36
2	Sb 206.836†	78.4	0.9	-2.5615 µg/L	-2.5615 ppb	22:07:36
2	Se 196.026†	-30.3	-44.0	1.93 µg/L	1.93 ppb	22:07:36
2	SiO2†	552531.5	554514.2	59325 µg/L	59325 ppb	22:07:15
2	Si 251.611†	1693585.6	1704087.9	27583 µg/L	27583 ppb	22:07:15
2	Sn 189.927†	11.5	14.1	7.1972 µg/L	7.1972 ppb	22:07:36
2	Ti 334.940†	1829241.3	1840723.9	1844.0 µg/L	1844.0 ppb	22:07:15
2	Tl 190.801†	-350.9	-236.2	-3.6378 µg/L	-3.6378 ppb	22:07:36
2	U 409.014†	-3752.6	-3494.3	-204.12 µg/L	-204.12 ppb	22:07:15
2	V 292.402†	13833.6	13617.3	64.982 µg/L	64.982 ppb	22:07:36
2	Zn 213.857†	44178.7	43952.9	267.18 µg/L	267.18 ppb	22:07:15
3	Sc RADIAL	150308.7	150308.7	102 %		22:06:48
3	Al 396.153Radial†	142115.0	139834.2	28816 µg/L	28816 ppb	22:06:48
3	Ca 317.933Radial†	275874.7	270627.1	16283 µg/L	16283 ppb	22:06:48
3	Fe 238.204 Radial†	848636.5	834500.4	56152 µg/L	56152 ppb	22:06:46
3	K 766.490 Radial†	20274.6	18627.4	7656.2 µg/L	7656.2 ppb	22:06:48
3	Mg 279.077 IEC†	17018.2	16568.8	6748.7 µg/L	6748.7 ppb	22:06:48
3	Na 589.592 Radial†	4387.7	3108.7	465.23 µg/L	465.23 ppb	22:06:48
3	Sr 421.552†	53433.5	52773.9	121.61 µg/L	121.61 ppb	22:06:48
3	Sc 361.383	1736758.3	1736758.3	98.956 %		22:07:38
3	Y 371.029	1137773.4	1137773.4	106.93 %		22:07:38
3	Ag 328.068†	11516.8	8191.2	31.361 µg/L	31.361 ppb	22:07:38
3	As 188.979†	8.8	26.5	23.070 µg/L	23.070 ppb	22:07:58
3	B 249.677†	5405.8	2232.5	36.332 µg/L	36.332 ppb	22:07:38
3	Ba 233.527†	105074.8	106345.2	462.37 µg/L	462.37 ppb	22:07:38
3	Be 313.107†	18040.9	19016.8	5.6348 µg/L	5.6348 ppb	22:07:38
3	Cd 226.502†	851.0	970.0	0.7939 µg/L	0.7939 ppb	22:07:58
3	Co 228.616†	1241.3	1426.8	16.845 µg/L	16.845 ppb	22:07:58
3	Cr 267.716†	15151.6	15132.8	128.70 µg/L	128.70 ppb	22:07:58
3	Cu 324.752†	10260.8	7580.1	40.116 µg/L	40.116 ppb	22:07:38
3	Mn 257.610†	2645349.5	2673076.6	3572.5 µg/L	3572.5 ppb	22:07:38
3	Mo 202.031†	-15.6	19.0	2.9731 µg/L	2.9731 ppb	22:07:58
3	Ni 231.604†	6240.4	6384.1	80.297 µg/L	80.297 ppb	22:07:58
3	P 214.914†	4636.0	4679.9	1084.1 µg/L	1084.1 ppb	22:07:58
3	Pb 220.353†	1112.4	1027.2	65.494 µg/L	65.494 ppb	22:07:58
3	S 181.975 Axial†	1143.4	1067.8	875.31 µg/L	875.31 ppb	22:07:58
3	Sb 206.836†	100.0	23.0	0.3313 µg/L	0.3313 ppb	22:07:58
3	Se 196.026†	-37.5	-51.5	-1.35 µg/L	-1.35 ppb	22:07:58
3	SiO2†	554842.9	558942.2	59798 µg/L	59798 ppb	22:07:38
3	Si 251.611†	1700612.1	1717601.2	27801 µg/L	27801 ppb	22:07:38
3	Sn 189.927†	14.3	17.0	7.4383 µg/L	7.4383 ppb	22:07:58
3	Ti 334.940†	1835432.8	1853907.0	1857.2 µg/L	1857.2 ppb	22:07:38
3	Tl 190.801†	-344.5	-231.1	-2.7450 µg/L	-2.7450 ppb	22:07:58
3	U 409.014†	-4060.5	-3819.6	-224.13 µg/L	-224.13 ppb	22:07:38
3	V 292.402†	13788.3	13623.9	65.080 µg/L	65.080 ppb	22:07:58
3	Zn 213.857†	44164.5	44105.8	268.22 µg/L	268.22 ppb	22:07:38

Mean Data: 248517001|962575|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739537.9	99.115	%	0.1922				0.19%
Sc RADIAL	150906.6	102	%	0.4				0.35%
Y 371.029	1138675.9	107.01	%	0.192				0.18%
Ag 328.068†	8067.6	30.887	µg/L	1.1133	30.887	ppb	1.1133	3.60%
Al 396.153Radial†	138976.1	28639	µg/L	176.0	28639	ppb	176.0	0.61%
As 188.979†	24.4	22.441	µg/L	0.5463	22.441	ppb	0.5463	2.43%
B 249.677†	2186.5	35.584	µg/L	0.6483	35.584	ppb	0.6483	1.82%
Ba 233.527†	105414.8	458.31	µg/L	3.591	458.31	ppb	3.591	0.78%
Be 313.107†	18942.0	5.6155	µg/L	0.01672	5.6155	ppb	0.01672	0.30%
Ca 317.933Radial†	269358.3	16207	µg/L	86.6	16207	ppb	86.6	0.53%
Cd 226.502†	965.7	0.7029	µg/L	0.25586	0.7029	ppb	0.25586	36.40%
Co 228.616†	1395.0	16.380	µg/L	0.4326	16.380	ppb	0.4326	2.64%
Cr 267.716†	15071.9	128.21	µg/L	0.465	128.21	ppb	0.465	0.36%
Cu 324.752†	7567.4	40.156	µg/L	0.3216	40.156	ppb	0.3216	0.80%
Fe 238.204 Radial†	843170.4	56736	µg/L	509.1	56736	ppb	509.1	0.90%
K 766.490 Radial†	18567.3	7631.5	µg/L	32.11	7631.5	ppb	32.11	0.42%
Mg 279.077 IEC†	16580.3	6752.9	µg/L	28.06	6752.9	ppb	28.06	0.42%
Mn 257.610†	2656883.6	3550.8	µg/L	19.48	3550.8	ppb	19.48	0.55%
Mo 202.031†	22.2	3.0999	µg/L	0.15907	3.0999	ppb	0.15907	5.13%
Na 589.592 Radial†	3144.1	470.62	µg/L	8.849	470.62	ppb	8.849	1.88%

Ni 231.604†	6379.4	80.238	µg/L	0.3267	80.238	ppb	0.3267	0.41%
P 214.914†	4658.1	1078.5	µg/L	4.89	1078.5	ppb	4.89	0.45%
Pb 220.353†	1029.8	65.602	µg/L	1.0432	65.602	ppb	1.0432	1.59%
S 181.975 Axial†	1067.4	875.02	µg/L	1.071	875.02	ppb	1.071	0.12%
Sb 206.836†	5.0	-2.0294	µg/L	2.14471	-2.0294	ppb	2.14471	105.68%
Se 196.026†	-41.7	2.78	µg/L	4.616	2.78	ppb	4.616	165.83%
SiO2†	555248.6	59403	µg/L	362.3	59403	ppb	362.3	0.61%
Si 251.611†	1706162.8	27616	µg/L	170.8	27616	ppb	170.8	0.62%
Sn 189.927†	13.3	7.1476	µg/L	0.31837	7.1476	ppb	0.31837	4.45%
Sr 421.552†	52579.5	121.17	µg/L	0.540	121.17	ppb	0.540	0.45%
Ti 334.940†	1842926.7	1846.2	µg/L	10.08	1846.2	ppb	10.08	0.55%
Tl 190.801†	-235.1	-3.4581	µg/L	0.64244	-3.4581	ppb	0.64244	18.58%
U 409.014†	-3653.3	-213.99	µg/L	10.007	-213.99	ppb	10.007	4.68%
Concentration less than lower limit for U 409.014.								
V 292.402†	13619.3	65.010	µg/L	0.0611	65.010	ppb	0.0611	0.09%
Zn 213.857†	43913.1	266.96	µg/L	1.387	266.96	ppb	1.387	0.52%

Sequence No.: 143
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 22:16:16
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	153386.5	153386.5	104	%			22:16:49
1	Al 396.153Radial†	26166.3	25281.2	5186.5	µg/L	5186.5	ppb	22:16:49
1	Ca 317.933Radial†	87661.0	83787.3	5041.3	µg/L	5041.3	ppb	22:16:49
1	Fe 238.204 Radial†	77783.3	74824.8	5034.9	µg/L	5034.9	ppb	22:16:49
1	K 766.490 Radial†	14448.5	12612.3	5186.6	µg/L	5186.6	ppb	22:16:49
1	Mg 279.077 IEC†	13279.4	12629.5	5188.8	µg/L	5188.8	ppb	22:16:49
1	Na 589.592 Radial†	70102.1	66355.9	10071	µg/L	10071	ppb	22:16:49
1	Sr 421.552†	232426.3	224227.9	517.22	µg/L	517.22	ppb	22:16:47
1	Sc 361.383	1789411.9	1789411.9	101.96	%			22:17:16
1	Y 371.029	1067372.2	1067372.2	100.31	%			22:17:16
1	Ag 328.068†	131124.6	125161.6	503.79	µg/L	503.79	ppb	22:17:16
1	As 188.979†	1488.9	1478.0	522.97	µg/L	522.97	ppb	22:17:36
1	B 249.677†	34367.9	30478.1	495.18	µg/L	495.18	ppb	22:17:16
1	Ba 233.527†	117525.4	115432.5	503.02	µg/L	503.02	ppb	22:17:16
1	Be 313.107†	1725757.8	1693430.2	508.35	µg/L	508.35	ppb	22:17:16
1	Cd 226.502†	74008.2	72698.2	498.85	µg/L	498.85	ppb	22:17:16
1	Co 228.616†	37721.0	37169.6	502.98	µg/L	502.98	ppb	22:17:16
1	Cr 267.716†	60484.6	59145.5	498.22	µg/L	498.22	ppb	22:17:16
1	Cu 324.752†	123978.4	118810.6	502.21	µg/L	502.21	ppb	22:17:16
1	Mn 257.610†	383491.1	375957.2	502.29	µg/L	502.29	ppb	22:17:16
1	Mo 202.031†	15993.3	15721.1	500.54	µg/L	500.54	ppb	22:17:36
1	Ni 231.604†	40612.6	39911.2	501.99	µg/L	501.99	ppb	22:17:16
1	P 214.914†	10735.3	10524.4	2501.7	µg/L	2501.7	ppb	22:17:36
1	Pb 220.353†	8483.1	8223.4	505.11	µg/L	505.11	ppb	22:17:36
1	S 181.975 Axial†	1318.3	1205.3	992.26	µg/L	992.26	ppb	22:17:36
1	Sb 206.836†	3970.5	3816.3	501.57	µg/L	501.57	ppb	22:17:36
1	Se 196.026†	1273.6	1235.6	497	µg/L	497	ppb	22:17:36
1	SiO2†	52864.5	50097.0	5338.1	µg/L	5338.1	ppb	22:17:16
1	Si 251.611†	159097.3	155096.0	2500.4	µg/L	2500.4	ppb	22:17:16
1	Sn 189.927†	7390.1	7250.8	503.67	µg/L	503.67	ppb	22:17:36
1	Ti 334.940†	511162.0	500468.4	500.74	µg/L	500.74	ppb	22:17:16
1	Tl 190.801†	3680.1	3726.6	508.35	µg/L	508.35	ppb	22:17:36
1	U 409.014†	7417.0	7558.4	503.92	µg/L	503.92	ppb	22:17:16
1	V 292.402†	96216.0	94060.0	506.03	µg/L	506.03	ppb	22:17:16
1	Zn 213.857†	83161.9	81041.7	498.69	µg/L	498.69	ppb	22:17:16
2	Sc RADIAL	151970.3	151970.3	103	%			22:16:53
2	Al 396.153Radial†	26199.9	25549.0	5241.4	µg/L	5241.4	ppb	22:16:53
2	Ca 317.933Radial†	87623.8	84538.5	5086.5	µg/L	5086.5	ppb	22:16:53
2	Fe 238.204 Radial†	77437.6	75187.1	5059.2	µg/L	5059.2	ppb	22:16:53
2	K 766.490 Radial†	14358.5	12654.5	5203.9	µg/L	5203.9	ppb	22:16:53
2	Mg 279.077 IEC†	13165.8	12638.3	5192.5	µg/L	5192.5	ppb	22:16:53
2	Na 589.592 Radial†	69968.0	66855.1	10147	µg/L	10147	ppb	22:16:53
2	Sr 421.552†	230034.1	223988.5	516.67	µg/L	516.67	ppb	22:16:51
2	Sc 361.383	1773354.2	1773354.2	101.04	%			22:17:39
2	Y 371.029	1057681.3	1057681.3	99.402	%			22:17:39
2	Ag 328.068†	130825.7	126030.3	507.28	µg/L	507.28	ppb	22:17:39
2	As 188.979†	1499.0	1501.2	531.11	µg/L	531.11	ppb	22:17:59
2	B 249.677†	34413.4	30828.3	500.87	µg/L	500.87	ppb	22:17:39
2	Ba 233.527†	117336.6	116289.4	506.75	µg/L	506.75	ppb	22:17:39
2	Be 313.107†	1720066.1	1703124.0	511.27	µg/L	511.27	ppb	22:17:39
2	Cd 226.502†	74154.2	73500.0	504.36	µg/L	504.36	ppb	22:17:39
2	Co 228.616†	37853.2	37635.5	509.28	µg/L	509.28	ppb	22:17:39
2	Cr 267.716†	60261.5	59461.9	500.88	µg/L	500.88	ppb	22:17:39
2	Cu 324.752†	123208.7	119150.0	503.65	µg/L	503.65	ppb	22:17:39
2	Mn 257.610†	383009.1	378886.1	506.21	µg/L	506.21	ppb	22:17:39
2	Mo 202.031†	16034.3	15903.8	506.35	µg/L	506.35	ppb	22:17:59
2	Ni 231.604†	40672.3	40331.0	507.27	µg/L	507.27	ppb	22:17:39
2	P 214.914†	10800.9	10684.6	2539.9	µg/L	2539.9	ppb	22:17:59
2	Pb 220.353†	8498.0	8313.4	510.64	µg/L	510.64	ppb	22:17:59

2	S 181.975 Axial†	1332.7	1231.3	1013.6 µg/L	1013.6 ppb	22:17:59
2	Sb 206.836†	3982.8	3863.7	507.84 µg/L	507.84 ppb	22:17:59
2	Se 196.026†	1296.1	1269.2	510 µg/L	510 ppb	22:17:59
2	SiO2†	52738.1	50441.4	5374.7 µg/L	5374.7 ppb	22:17:39
2	Si 251.611†	158937.6	156350.9	2520.6 µg/L	2520.6 ppb	22:17:39
2	Sn 189.927†	7465.8	7391.4	513.41 µg/L	513.41 ppb	22:17:59
2	Ti 334.940†	509890.4	503749.7	504.02 µg/L	504.02 ppb	22:17:39
2	Tl 190.801†	3715.5	3794.2	517.48 µg/L	517.48 ppb	22:17:59
2	U 409.014†	7490.6	7697.2	512.79 µg/L	512.79 ppb	22:17:39
2	V 292.402†	95893.6	94595.5	508.94 µg/L	508.94 ppb	22:17:39
2	Zn 213.857†	82969.2	81589.5	502.05 µg/L	502.05 ppb	22:17:39
3	Sc RADIAL	151337.6	151337.6	102 %		22:16:57
3	Al 396.153Radial†	26042.6	25501.9	5231.5 µg/L	5231.5 ppb	22:16:57
3	Ca 317.933Radial†	86977.7	84263.7	5069.9 µg/L	5069.9 ppb	22:16:57
3	Fe 238.204 Radial†	77075.6	75148.4	5056.6 µg/L	5056.6 ppb	22:16:57
3	K 766.490 Radial†	14359.4	12713.8	5228.3 µg/L	5228.3 ppb	22:16:57
3	Mg 279.077 IEC†	13049.9	12578.6	5168.1 µg/L	5168.1 ppb	22:16:57
3	Na 589.592 Radial†	69668.3	66846.9	10146 µg/L	10146 ppb	22:16:57
3	Sr 421.552†	229774.6	224670.5	518.24 µg/L	518.24 ppb	22:16:55
3	Sc 361.383	1762011.3	1762011.3	100.40 %		22:18:02
3	Y 371.029	1051598.9	1051598.9	98.830 %		22:18:02
3	Ag 328.068†	129354.8	125398.7	504.75 µg/L	504.75 ppb	22:18:02
3	As 188.979†	1510.0	1521.8	538.29 µg/L	538.29 ppb	22:18:23
3	B 249.677†	33938.2	30574.3	496.74 µg/L	496.74 ppb	22:18:02
3	Ba 233.527†	116176.3	115881.3	504.98 µg/L	504.98 ppb	22:18:02
3	Be 313.107†	1701463.1	1695552.9	508.99 µg/L	508.99 ppb	22:18:02
3	Cd 226.502†	73147.3	72969.5	500.72 µg/L	500.72 ppb	22:18:02
3	Co 228.616†	37362.1	37387.5	505.93 µg/L	505.93 ppb	22:18:02
3	Cr 267.716†	59743.2	59329.6	499.77 µg/L	499.77 ppb	22:18:02
3	Cu 324.752†	122036.3	118767.1	502.02 µg/L	502.02 ppb	22:18:02
3	Mn 257.610†	379011.0	377343.9	504.15 µg/L	504.15 ppb	22:18:02
3	Mo 202.031†	16075.0	16046.5	510.89 µg/L	510.89 ppb	22:18:23
3	Ni 231.604†	40073.4	39993.6	503.03 µg/L	503.03 ppb	22:18:02
3	P 214.914†	10845.1	10797.4	2566.8 µg/L	2566.8 ppb	22:18:23
3	Pb 220.353†	8530.6	8400.0	515.96 µg/L	515.96 ppb	22:18:23
3	S 181.975 Axial†	1337.1	1244.2	1024.2 µg/L	1024.2 ppb	22:18:23
3	Sb 206.836†	4004.5	3910.7	514.09 µg/L	514.09 ppb	22:18:23
3	Se 196.026†	1294.9	1276.2	513 µg/L	513 ppb	22:18:23
3	SiO2†	52161.7	50203.3	5349.0 µg/L	5349.0 ppb	22:18:02
3	Si 251.611†	157219.9	155652.6	2509.2 µg/L	2509.2 ppb	22:18:02
3	Sn 189.927†	7461.2	7434.4	516.39 µg/L	516.39 ppb	22:18:23
3	Ti 334.940†	505177.2	502303.6	502.58 µg/L	502.58 ppb	22:18:02
3	Tl 190.801†	3735.8	3838.2	523.38 µg/L	523.38 ppb	22:18:23
3	U 409.014†	7211.5	7466.9	498.31 µg/L	498.31 ppb	22:18:02
3	V 292.402†	95154.8	94470.5	508.31 µg/L	508.31 ppb	22:18:02
3	Zn 213.857†	82153.8	81306.0	500.32 µg/L	500.32 ppb	22:18:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1774925.8	101.13	%	0.784				0.78%
Sc RADIAL	152231.5	103	%	0.7				0.69%
Y 371.029	1058884.2	99.515	%	0.7476				0.75%
Ag 328.068†	125530.2	505.27	µg/L	1.806	505.27	ppb	1.806	0.36%
QC value within limits for Ag 328.068 Recovery = 101.05%								
Al 396.153Radial†	25444.0	5219.8	µg/L	29.26	5219.8	ppb	29.26	0.56%
QC value within limits for Al 396.153Radial Recovery = 104.40%								
As 188.979†	1500.3	530.79	µg/L	7.665	530.79	ppb	7.665	1.44%
QC value within limits for As 188.979 Recovery = 106.16%								
B 249.677†	30626.9	497.59	µg/L	2.940	497.59	ppb	2.940	0.59%
QC value within limits for B 249.677 Recovery = 99.52%								
Ba 233.527†	115867.7	504.92	µg/L	1.868	504.92	ppb	1.868	0.37%
QC value within limits for Ba 233.527 Recovery = 100.98%								
Be 313.107†	1697369.1	509.54	µg/L	1.531	509.54	ppb	1.531	0.30%
QC value within limits for Be 313.107 Recovery = 101.91%								
Ca 317.933Radial†	84196.5	5065.9	µg/L	22.87	5065.9	ppb	22.87	0.45%
QC value within limits for Ca 317.933Radial Recovery = 101.32%								
Cd 226.502†	73055.9	501.31	µg/L	2.800	501.31	ppb	2.800	0.56%
QC value within limits for Cd 226.502 Recovery = 100.26%								
Co 228.616†	37397.6	506.06	µg/L	3.154	506.06	ppb	3.154	0.62%

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   QC value within limits for Co 228.616  Recovery = 101.21%
Cr 267.716†            59312.3      499.62 µg/L         1.336      499.62 ppb          1.336   0.27%
   QC value within limits for Cr 267.716  Recovery = 99.92%
Cu 324.752†           118909.2      502.63 µg/L         0.892      502.63 ppb          0.892   0.18%
   QC value within limits for Cu 324.752  Recovery = 100.53%
Fe 238.204 Radial†     75053.4      5050.2 µg/L         13.39      5050.2 ppb          13.39   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†      12660.2      5206.3 µg/L         20.97      5206.3 ppb          20.97   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 104.13%
Mg 279.077 IEC†        12615.5      5183.1 µg/L         13.13      5183.1 ppb          13.13   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†           377395.8      504.21 µg/L         1.958      504.21 ppb          1.958   0.39%
   QC value within limits for Mn 257.610  Recovery = 100.84%
Mo 202.031†            15890.5      505.92 µg/L         5.188      505.92 ppb          5.188   1.03%
   QC value within limits for Mo 202.031  Recovery = 101.18%
Na 589.592 Radial†     66686.0       10121 µg/L          43.4       10121 ppb           43.4   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 101.21%
Ni 231.604†            40078.6      504.10 µg/L         2.798      504.10 ppb          2.798   0.55%
   QC value within limits for Ni 231.604  Recovery = 100.82%
P 214.914†             10668.8      2536.2 µg/L         32.73      2536.2 ppb          32.73   1.29%
   QC value within limits for P 214.914  Recovery = 101.45%
Pb 220.353†             8312.3      510.57 µg/L         5.426      510.57 ppb          5.426   1.06%
   QC value within limits for Pb 220.353  Recovery = 102.11%
S 181.975 Axial†        1226.9      1010.0 µg/L         16.26      1010.0 ppb          16.26   1.61%
   QC value within limits for S 181.975 Axial  Recovery = 101.00%
Sb 206.836†             3863.5      507.83 µg/L         6.263      507.83 ppb          6.263   1.23%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†             1260.3         507 µg/L           8.7         507 ppb            8.7   1.72%
   QC value within limits for Se 196.026  Recovery = 101.34%
SiO2†                  50247.2      5353.9 µg/L         18.76      5353.9 ppb          18.76   0.35%
   QC value within limits for SiO2  Recovery = 100.12%
Si 251.611†           155699.8      2510.1 µg/L         10.11      2510.1 ppb          10.11   0.40%
   QC value within limits for Si 251.611  Recovery = 100.40%
Sn 189.927†             7358.8      511.16 µg/L         6.650      511.16 ppb          6.650   1.30%
   QC value within limits for Sn 189.927  Recovery = 102.23%
Sr 421.552†           224295.6      517.38 µg/L         0.798      517.38 ppb          0.798   0.15%
   QC value within limits for Sr 421.552  Recovery = 103.48%
Ti 334.940†           502173.9      502.44 µg/L         1.646      502.44 ppb          1.646   0.33%
   QC value within limits for Ti 334.940  Recovery = 100.49%
Tl 190.801†             3786.3      516.40 µg/L         7.571      516.40 ppb          7.571   1.47%
   QC value within limits for Tl 190.801  Recovery = 103.28%
U 409.014†              7574.2      505.01 µg/L         7.299      505.01 ppb          7.299   1.45%
   QC value within limits for U 409.014  Recovery = 101.00%
V 292.402†             94375.3      507.76 µg/L         1.534      507.76 ppb          1.534   0.30%
   QC value within limits for V 292.402  Recovery = 101.55%
Zn 213.857†            81312.4      500.35 µg/L         1.681      500.35 ppb          1.681   0.34%
   QC value within limits for Zn 213.857  Recovery = 100.07%
All analyte(s) passed QC.
```

Sequence No.: 144 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 22:18:31**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148807.3	148807.3	101	%			22:19:00
1	Al 396.153Radial†	-37.5	25.7	5.2566	µg/L	5.2566	ppb	22:19:20
1	Ca 317.933Radial†	768.1	65.1	3.9175	µg/L	3.9175	ppb	22:19:20
1	Fe 238.204 Radial†	192.4	50.4	3.3938	µg/L	3.3938	ppb	22:19:20
1	K 766.490 Radial†	1678.8	355.0	146.09	µg/L	146.09	ppb	22:19:00
1	Mg 279.077 IEC†	177.0	7.1	2.9252	µg/L	2.9252	ppb	22:19:20
1	Na 589.592 Radial†	1381.4	165.7	25.030	µg/L	25.030	ppb	22:19:00
1	Sr 421.552†	-78.5	143.7	0.3314	µg/L	0.3314	ppb	22:19:00
1	Sc 361.383	1763258.7	1763258.7	100.47	%			22:20:08
1	Y 371.029	1064121.8	1064121.8	100.01	%			22:20:08
1	Ag 328.068†	3849.1	384.2	1.5348	µg/L	1.5348	ppb	22:20:10
1	As 188.979†	-20.4	-2.6	-0.8986	µg/L	-0.8986	ppb	22:20:30
1	B 249.677†	3299.3	53.6	0.8728	µg/L	0.8728	ppb	22:20:30
1	Ba 233.527†	-164.7	-1.8	-0.0073	µg/L	-0.0073	ppb	22:20:30
1	Be 313.107†	-908.6	-118.8	-0.0349	µg/L	-0.0349	ppb	22:20:10
1	Cd 226.502†	-100.9	9.6	0.0658	µg/L	0.0658	ppb	22:20:30
1	Co 228.616†	-147.9	25.2	0.3403	µg/L	0.3403	ppb	22:20:30
1	Cr 267.716†	172.5	-6.9	-0.0597	µg/L	-0.0597	ppb	22:20:30
1	Cu 324.752†	2888.2	85.9	0.3647	µg/L	0.3647	ppb	22:20:10
1	Mn 257.610†	285.1	108.2	0.1445	µg/L	0.1445	ppb	22:20:30
1	Mo 202.031†	-15.1	19.8	0.6292	µg/L	0.6292	ppb	22:20:30
1	Ni 231.604†	-70.1	8.1	0.1024	µg/L	0.1024	ppb	22:20:30
1	P 214.914†	5.8	0.8	0.1821	µg/L	0.1821	ppb	22:20:30
1	Pb 220.353†	79.2	-18.2	-1.1120	µg/L	-1.1120	ppb	22:20:30
1	S 181.975 Axial†	85.6	-2.5	-2.0677	µg/L	-2.0677	ppb	22:20:30
1	Sb 206.836†	88.9	10.4	1.3707	µg/L	1.3707	ppb	22:20:30
1	Se 196.026†	17.6	3.9	1.58	µg/L	1.58	ppb	22:20:30
1	SiO2†	1767.4	6.1	0.6367	µg/L	0.6367	ppb	22:20:30
1	Si 251.611†	899.6	-53.2	-0.8681	µg/L	-0.8681	ppb	22:20:30
1	Sn 189.927†	-6.1	-3.6	-0.2472	µg/L	-0.2472	ppb	22:20:30
1	Ti 334.940†	805.5	-83.8	-0.0851	µg/L	-0.0851	ppb	22:20:10
1	Tl 190.801†	-117.8	-0.2	-0.0222	µg/L	-0.0222	ppb	22:20:30
1	U 409.014†	-245.9	39.0	2.4662	µg/L	2.4662	ppb	22:20:10
1	V 292.402†	389.9	78.2	0.4230	µg/L	0.4230	ppb	22:20:10
1	Zn 213.857†	553.8	26.7	0.1641	µg/L	0.1641	ppb	22:20:30
2	Sc RADIAL	148691.1	148691.1	101	%			22:19:22
2	Al 396.153Radial†	-61.1	2.1	0.4164	µg/L	0.4164	ppb	22:19:42
2	Ca 317.933Radial†	720.6	18.4	1.1084	µg/L	1.1084	ppb	22:19:42
2	Fe 238.204 Radial†	183.6	41.9	2.8163	µg/L	2.8163	ppb	22:19:42
2	K 766.490 Radial†	1723.7	400.9	165.01	µg/L	165.01	ppb	22:19:22
2	Mg 279.077 IEC†	171.5	1.7	0.7095	µg/L	0.7095	ppb	22:19:42
2	Na 589.592 Radial†	1280.0	66.0	9.8686	µg/L	9.8686	ppb	22:19:22
2	Sr 421.552†	-205.0	17.8	0.0411	µg/L	0.0411	ppb	22:19:22
2	Sc 361.383	1770056.8	1770056.8	100.85	%			22:20:32
2	Y 371.029	1066919.4	1066919.4	100.27	%			22:20:32
2	Ag 328.068†	3825.9	346.4	1.3732	µg/L	1.3732	ppb	22:20:35
2	As 188.979†	-14.4	3.4	1.1908	µg/L	1.1908	ppb	22:20:55
2	B 249.677†	3274.2	16.1	0.2630	µg/L	0.2630	ppb	22:20:55
2	Ba 233.527†	-137.2	26.1	0.1137	µg/L	0.1137	ppb	22:20:55
2	Be 313.107†	-820.9	-28.4	-0.0086	µg/L	-0.0086	ppb	22:20:35
2	Cd 226.502†	-111.3	-0.3	-0.0024	µg/L	-0.0024	ppb	22:20:55
2	Co 228.616†	-174.0	-0.1	-0.0009	µg/L	-0.0009	ppb	22:20:55
2	Cr 267.716†	150.0	-29.8	-0.2514	µg/L	-0.2514	ppb	22:20:55
2	Cu 324.752†	2663.5	-148.0	-0.6233	µg/L	-0.6233	ppb	22:20:35
2	Mn 257.610†	265.1	87.3	0.1166	µg/L	0.1166	ppb	22:20:55
2	Mo 202.031†	-19.5	15.4	0.4893	µg/L	0.4893	ppb	22:20:55
2	Ni 231.604†	-66.6	11.9	0.1497	µg/L	0.1497	ppb	22:20:55
2	P 214.914†	-3.3	-8.3	-1.9685	µg/L	-1.9685	ppb	22:20:55
2	Pb 220.353†	74.5	-23.1	-1.4112	µg/L	-1.4112	ppb	22:20:55

2	S 181.975 Axial†	94.3	5.8	4.7628 µg/L	4.7628 ppb	22:20:55
2	Sb 206.836†	93.3	14.4	1.8971 µg/L	1.8971 ppb	22:20:55
2	Se 196.026†	12.0	-1.7	-0.663 µg/L	-0.663 ppb	22:20:55
2	SiO2†	1723.7	-44.0	-4.7329 µg/L	-4.7329 ppb	22:20:55
2	Si 251.611†	904.9	-51.4	-0.8418 µg/L	-0.8418 ppb	22:20:55
2	Sn 189.927†	5.0	7.5	0.5192 µg/L	0.5192 ppb	22:20:55
2	Ti 334.940†	821.7	-70.9	-0.0709 µg/L	-0.0709 ppb	22:20:35
2	Tl 190.801†	-105.3	12.6	1.6962 µg/L	1.6962 ppb	22:20:55
2	U 409.014†	-289.1	-2.9	-0.1964 µg/L	-0.1964 ppb	22:20:35
2	V 292.402†	257.2	-54.9	-0.2877 µg/L	-0.2877 ppb	22:20:35
2	Zn 213.857†	568.8	39.5	0.2440 µg/L	0.2440 ppb	22:20:55
3	Sc RADIAL	150016.6	150016.6	101 %		22:19:44
3	Al 396.153Radial†	-74.0	-10.1	-2.1470 µg/L	-2.1470 ppb	22:20:04
3	Ca 317.933Radial†	743.0	34.2	2.0565 µg/L	2.0565 ppb	22:20:04
3	Fe 238.204 Radial†	169.5	26.4	1.7740 µg/L	1.7740 ppb	22:20:04
3	K 766.490 Radial†	1547.6	212.3	87.354 µg/L	87.354 ppb	22:19:44
3	Mg 279.077 IEC†	175.8	4.5	1.8815 µg/L	1.8815 ppb	22:20:04
3	Na 589.592 Radial†	1364.4	137.9	20.864 µg/L	20.864 ppb	22:19:44
3	Sr 421.552†	-198.4	26.2	0.0604 µg/L	0.0604 ppb	22:19:44
3	Sc 361.383	1765298.9	1765298.9	100.58 %		22:20:57
3	Y 371.029	1065309.3	1065309.3	100.12 %		22:20:57
3	Ag 328.068†	3666.5	198.1	0.7889 µg/L	0.7889 ppb	22:20:59
3	As 188.979†	-18.2	-0.5	-0.1527 µg/L	-0.1527 ppb	22:21:19
3	B 249.677†	3274.6	25.3	0.4131 µg/L	0.4131 ppb	22:21:19
3	Ba 233.527†	-131.5	31.4	0.1372 µg/L	0.1372 ppb	22:21:19
3	Be 313.107†	-881.3	-90.7	-0.0263 µg/L	-0.0263 ppb	22:20:59
3	Cd 226.502†	-132.1	-21.3	-0.1465 µg/L	-0.1465 ppb	22:21:19
3	Co 228.616†	-172.1	1.3	0.0180 µg/L	0.0180 ppb	22:21:19
3	Cr 267.716†	176.1	-3.5	-0.0316 µg/L	-0.0316 ppb	22:21:19
3	Cu 324.752†	2976.7	170.6	0.7215 µg/L	0.7215 ppb	22:20:59
3	Mn 257.610†	273.2	96.1	0.1283 µg/L	0.1283 ppb	22:21:19
3	Mo 202.031†	14.7	49.4	1.5707 µg/L	1.5707 ppb	22:21:19
3	Ni 231.604†	-80.4	-2.0	-0.0256 µg/L	-0.0256 ppb	22:21:19
3	P 214.914†	-6.1	-11.0	-2.6575 µg/L	-2.6575 ppb	22:21:19
3	Pb 220.353†	69.4	-28.0	-1.7122 µg/L	-1.7122 ppb	22:21:19
3	S 181.975 Axial†	93.8	5.5	4.5395 µg/L	4.5395 ppb	22:21:19
3	Sb 206.836†	89.1	10.5	1.4006 µg/L	1.4006 ppb	22:21:19
3	Se 196.026†	24.3	10.6	4.25 µg/L	4.25 ppb	22:21:19
3	SiO2†	1745.8	-17.5	-1.9166 µg/L	-1.9166 ppb	22:21:19
3	Si 251.611†	864.7	-88.9	-1.4608 µg/L	-1.4608 ppb	22:21:19
3	Sn 189.927†	-1.9	0.6	0.0439 µg/L	0.0439 ppb	22:21:19
3	Ti 334.940†	785.7	-104.5	-0.1060 µg/L	-0.1060 ppb	22:20:59
3	Tl 190.801†	-105.9	11.8	1.5784 µg/L	1.5784 ppb	22:21:19
3	U 409.014†	-236.6	48.5	3.0270 µg/L	3.0270 ppb	22:20:59
3	V 292.402†	273.8	-37.7	-0.1819 µg/L	-0.1819 ppb	22:20:59
3	Zn 213.857†	543.9	16.2	0.0996 µg/L	0.0996 ppb	22:21:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1766204.8	100.63	%	0.199				0.20%
Sc RADIAL	149171.7	101	%	0.5				0.49%
Y 371.029	1065450.2	100.13	%	0.132				0.13%
Ag 328.068†	309.6	1.2323	µg/L	0.39244	1.2323	ppb	0.39244	31.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.9	1.1753	µg/L	3.75969	1.1753	ppb	3.75969	319.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.0465	µg/L	1.05883	0.0465	ppb	1.05883	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	31.7	0.5163	µg/L	0.31774	0.5163	ppb	0.31774	61.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.6	0.0812	µg/L	0.07752	0.0812	ppb	0.07752	95.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-79.3	-0.0233	µg/L	0.01343	-0.0233	ppb	0.01343	57.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	39.2	2.3608	µg/L	1.42904	2.3608	ppb	1.42904	60.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.0	-0.0277	µg/L	0.10838	-0.0277	ppb	0.10838	391.34%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.8	0.1191	µg/L	0.19179	0.1191	ppb	0.19179	160.98%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -13.4     -0.1142 µg/L       0.11961     -0.1142 ppb        0.11961 104.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               36.2      0.1543 µg/L       0.69664      0.1543 ppb        0.69664 451.47%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        39.6      2.6614 µg/L       0.82094      2.6614 ppb        0.82094  30.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        322.7      132.82 µg/L        40.494      132.82 ppb         40.494  30.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            4.4      1.8388 µg/L       1.10847      1.8388 ppb        1.10847  60.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               97.2      0.1298 µg/L       0.01400      0.1298 ppb        0.01400  10.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               28.2      0.8964 µg/L       0.58814      0.8964 ppb        0.58814  65.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       123.2      18.587 µg/L        7.8328      18.587 ppb         7.8328  42.14%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                6.0      0.0755 µg/L       0.09068      0.0755 ppb        0.09068 120.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.2     -1.4813 µg/L       1.48120     -1.4813 ppb        1.48120  99.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -23.1     -1.4118 µg/L       0.30012     -1.4118 ppb        0.30012  21.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.9      2.4115 µg/L       3.88076      2.4115 ppb        3.88076 160.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               11.8      1.5561 µg/L       0.29567      1.5561 ppb        0.29567  19.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.3        1.72 µg/L         2.457        1.72 ppb          2.457 142.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -18.5     -2.0043 µg/L       2.68585     -2.0043 ppb        2.68585 134.00%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -64.5     -1.0569 µg/L       0.35003     -1.0569 ppb        0.35003  33.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.1053 µg/L       0.38689      0.1053 ppb        0.38689 367.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               62.6      0.1443 µg/L       0.16231      0.1443 ppb        0.16231 112.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -86.4     -0.0873 µg/L       0.01768     -0.0873 ppb        0.01768  20.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.1      1.0841 µg/L       0.95989      1.0841 ppb        0.95989  88.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                28.2      1.7656 µg/L       1.72212      1.7656 ppb        1.72212  97.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -4.8     -0.0155 µg/L       0.38343     -0.0155 ppb        0.38343 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.4      0.1693 µg/L       0.07234      0.1693 ppb        0.07234  42.74%
   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: Tuesday, April 13, 2010 11:33:12
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1054
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	1541.9	1541.883	43.705	2.8
	Mg	24.0	38738.9	38738.859	434.290	1.1
	Co	58.9	63185.8	63185.831	373.250	0.6
	Rh	102.9	123622.6	123622.601	766.014	0.6
	In	114.9	178721.4	178721.441	1254.626	0.7
	Pb	208.0	214246.1	214246.105	2038.893	1.0
⌈>	Ba	137.9	169586.4	169586.427	957.403	0.6
⌊	Ba++	69.0	1987.6	0.012	0.000	2.3
⌈>	Ce	139.9	205613.0	205612.974	1509.978	0.7
⌊	CeO	155.9	4192.2	0.020	0.000	2.1
	Bkgd	220.0	19.8	19.800	2.564	13.0

Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.0	3372.1
Co	59	21	7.8	60333.1
In	115	21	9.5	172853.8

ICPMS #5 Instrument Tuning Report

File Name: 100413.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	606	2072	0.540
Be	9.0	9.0	2061	2088	0.543
Mg	24.0	24.0	5699	2085	0.562
Mg	25.0	25.0	5939	2085	0.540
Mg	26.0	26.0	6187	2100	0.545
Co	58.9	59.0	14193	2125	0.528
Rh	102.9	102.9	24880	2180	0.530
In	114.9	114.9	27796	2200	0.535
Ce	139.9	139.9	33878	2220	0.547
Pb	206.0	206.0	49948	2305	0.522
Pb	207.0	207.0	50171	2240	0.593
Pb	208.0	208.0	50451	2280	0.636
U	238.1	238.0	57731	2295	0.641

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, April 13, 2010 18:56:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\Blank.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		19	
>	Sc	45		ug/L		445594	
	Ni	60		ug/L		130	
>	Ge	74		ug/L		254044	
	As	75		ug/L		-12	
	Se	77		ug/L		3810	
	Se	82		ug/L		-3	
	Kr	83		ug/L		86	
>	Lu	175		ug/L		349004	
	Tl	205		ug/L		2870	
	U	238		ug/L		660	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
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					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	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: Tuesday, April 13, 2010 19:00:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\Standard 1.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	0.282	1604	0.004
>	Sc	45		**ug/L**		444363	444363.334
	Ni	60	**10.000**	**ug/L**	1.699	9645	0.021
>	Ge	74		**ug/L**		252669	252669.102
	As	75	**10.000**	**ug/L**	5.043	6831	0.027
	Se	77		**ug/L**		4272	0.002
	Se	82	**10.000**	**ug/L**	1.966	709	0.003
	Kr	83		**ug/L**		75	-0.000
>	Lu	175		**ug/L**		350994	350993.990
	Tl	205	**10.000**	**ug/L**	3.157	164485	0.461
	U	238	**10.000**	**ug/L**	0.649	401696	1.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	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: Tuesday, April 13, 2010 19:04:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\Ianl soil.mth
Dataset File: C:\elandata\Dataset\100413\Standard 2.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.972**	ug/L	4.421	15744	0.035
>	Sc	45		ug/L		453169	453169.172
	Ni	60	**99.954**	ug/L	2.681	92801	0.205
>	Ge	74		ug/L		253890	253890.125
	As	75	**100.015**	ug/L	1.222	69813	0.275
	Se	77		ug/L		8695	0.019
	Se	82	**99.957**	ug/L	1.179	6855	0.027
	Kr	83		ug/L		107	0.000
>	Lu	175		ug/L		355412	355412.036
	Tl	205	**99.902**	ug/L	2.482	1491556	4.190
	U	238	**99.924**	ug/L	1.001	3772659	10.613

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	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: Tuesday, April 13, 2010 19:08:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 1.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.493**	**ug/L**	6.745	7924	0.018
>	Sc	45		**ug/L**		451255	451254.648
	Ni	60	**51.423**	**ug/L**	1.981	47617	0.105
>	Ge	74		**ug/L**		254009	254009.371
	As	75	**50.580**	**ug/L**	3.327	35310	0.139
	Se	77		**ug/L**		6322	0.010
	Se	82	**50.364**	**ug/L**	3.025	3453	0.014
	Kr	83		**ug/L**		93	0.000
>	Lu	175		**ug/L**		356880	356880.491
	Tl	205	**50.690**	**ug/L**	2.329	761378	2.126
	U	238	**49.756**	**ug/L**	1.818	1886294	5.285

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	100.986				
>	Sc	45		101.3			
	Ni	60	102.846				
>	Ge	74		100.0			
	As	75	101.160				
	Se	77					
	Se	82	100.729				
	Kr	83					
>	Lu	175		102.3			
	Tl	205	101.380				
	U	238	99.512				

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: Tuesday, April 13, 2010 19:12:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 2.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.014**	**ug/L**	87.945	21	0.000
>	Sc	45		**ug/L**		448722	448722.472
	Ni	60	**-0.013**	**ug/L**	68.509	119	-0.000
>	Ge	74		**ug/L**		252383	252383.425
	As	75	**0.064**	**ug/L**	175.229	33	0.000
	Se	77		**ug/L**		3928	0.001
	Se	82	**0.249**	**ug/L**	7.710	14	0.000
	Kr	83		**ug/L**		83	-0.000
>	Lu	175		**ug/L**		351120	351119.525
	Tl	205	**0.186**	**ug/L**	3.717	5620	0.008
	U	238	**0.005**	**ug/L**	19.904	865	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45		100.7			
	Ni	60					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.6			
	Tl	205					
	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: Tuesday, April 13, 2010 19:16:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 3.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.662**	**ug/L**	16.453	122	0.000
>	Sc	45		**ug/L**		449650	449650.218
	Ni	60	**2.282**	**ug/L**	3.948	2231	0.005
>	Ge	74		**ug/L**		251355	251355.187
	As	75	**6.052**	**ug/L**	2.311	4170	0.017
	Se	77		**ug/L**		3672	-0.000
	Se	82	**5.772**	**ug/L**	3.928	389	0.002
	Kr	83		**ug/L**		79	-0.000
>	Lu	175		**ug/L**		353165	353165.001
	Tl	205	**1.218**	**ug/L**	1.671	20948	0.051
	U	238	**0.292**	**ug/L**	2.945	11636	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	132.467				
>	Sc	45		100.9			
	Ni	60	114.112				
>	Ge	74		98.9			
	As	75	121.035				
	Se	77					
	Se	82	115.432				
	Kr	83					
>	Lu	175		101.2			
	Tl	205	121.846				
	U	238	146.242				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	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: Tuesday, April 13, 2010 19:20:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 4.185

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.103**	**ug/L**	50.064	33	0.000
>	Sc	45		**ug/L**		421635	421635.197
	Ni	60	**2.779**	**ug/L**	2.051	2521	0.006
>	Ge	74		**ug/L**		231310	231310.332
	As	75	**-0.361**	**ug/L**	174.402	-243	-0.001
	Se	77		**ug/L**		4201	0.003
	Se	82	**-1.049**	**ug/L**	39.941	-69	-0.000
	Kr	83		**ug/L**		172	0.000
>	Lu	175		**ug/L**		322577	322577.208
	Tl	205	**-0.004**	**ug/L**	70.177	2594	-0.000
	U	238	**-0.012**	**ug/L**	0.726	204	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		94.6			
	Ni	60	83.948				
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.4			
	Tl	205					
	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: Tuesday, April 13, 2010 19:24:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 5.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.051**	**ug/L**	10.901	3216	0.008
>	Sc	45		**ug/L**		418038	418037.921
	Ni	60	**21.668**	**ug/L**	3.166	18655	0.044
>	Ge	74		**ug/L**		233103	233102.772
	As	75	**20.576**	**ug/L**	2.617	13177	0.057
	Se	77		**ug/L**		4507	0.004
	Se	82	**20.866**	**ug/L**	5.343	1311	0.006
	Kr	83		**ug/L**		171	0.000
>	Lu	175		**ug/L**		323073	323072.629
	Tl	205	**19.336**	**ug/L**	1.538	264615	0.811
	U	238	**21.379**	**ug/L**	1.769	734175	2.271

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	110.256				
>	Sc	45		93.8			
	Ni	60	92.955				
>	Ge	74		91.8			
	As	75	102.879				
	Se	77					
	Se	82	104.331				
	Kr	83					
>	Lu	175		92.6			
	Tl	205	96.680				
	U	238	106.895				

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: Tuesday, April 13, 2010 19:28:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 6.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.299**	**ug/L**	6.742	8132	0.018
>	Sc	45		**ug/L**		446886	446885.892
	Ni	60	**50.085**	**ug/L**	3.133	45922	0.103
>	Ge	74		**ug/L**		246224	246224.362
	As	75	**50.712**	**ug/L**	2.285	34321	0.139
	Se	77		**ug/L**		5995	0.009
	Se	82	**51.768**	**ug/L**	5.984	3441	0.014
	Kr	83		**ug/L**		84	0.000
>	Lu	175		**ug/L**		349907	349906.710
	Tl	205	**49.372**	**ug/L**	2.445	727303	2.071
	U	238	**49.990**	**ug/L**	1.170	1858636	5.310

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	104.597				
>	Sc	45		100.3			
	Ni	60	100.170				
>	Ge	74		96.9			
	As	75	101.424				
	Se	77					
	Se	82	103.536				
	Kr	83					
>	Lu	175		100.3			
	Tl	205	98.744				
	U	238	99.980				

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: Tuesday, April 13, 2010 19:32:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 7.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.034	ug/L	57.982	13	-0.000
>	Sc	45		ug/L		441514	441513.645
	Ni	60	-0.011	ug/L	111.503	119	-0.000
>	Ge	74		ug/L		244978	244978.365
	As	75	-0.092	ug/L	238.142	-72	-0.000
	Se	77		ug/L		3767	0.000
	Se	82	-0.012	ug/L	1142.349	-4	-0.000
	Kr	83		ug/L		83	0.000
>	Lu	175		ug/L		343676	343675.889
	Tl	205	0.324	ug/L	2.992	7490	0.014
	U	238	0.006	ug/L	19.101	885	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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 % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.1			
	Ni	60					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.5			
	Tl	205					
	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: Tuesday, April 13, 2010 20:09:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.197

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**55.715**	**ug/L**	7.601	8592	0.019
>	Sc	45		**ug/L**		443949	443949.183
	Ni	60	**49.855**	**ug/L**	1.908	45424	0.102
>	Ge	74		**ug/L**		242696	242696.352
	As	75	**51.652**	**ug/L**	1.568	34459	0.142
	Se	77		**ug/L**		5623	0.008
	Se	82	**51.017**	**ug/L**	2.354	3343	0.014
	Kr	83		**ug/L**		79	-0.000
>	Lu	175		**ug/L**		346303	346303.461
	Tl	205	**50.085**	**ug/L**	1.936	730163	2.100
	U	238	**50.668**	**ug/L**	0.998	1864231	5.382

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	111.430				
>	Sc	45		99.6			
	Ni	60	99.710				
>	Ge	74		95.5			
	As	75	103.304				
	Se	77					
	Se	82	102.033				
	Kr	83					
>	Lu	175		99.2			
	Tl	205	100.170				
	U	238	101.336				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, April 13, 2010 20:13:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.003**	**ug/L**	1295.742	18	-0.000
>	Sc	45		**ug/L**		440793	440793.036
	Ni	60	**-0.018**	**ug/L**	54.025	113	-0.000
>	Ge	74		**ug/L**		241228	241227.718
	As	75	**0.184**	**ug/L**	46.513	111	0.001
	Se	77		**ug/L**		3187	-0.002
	Se	82	**0.679**	**ug/L**	21.277	41	0.000
	Kr	83		**ug/L**		74	-0.000
>	Lu	175		**ug/L**		340351	340351.139
	Tl	205	**0.214**	**ug/L**	7.703	5845	0.009
	U	238	**0.005**	**ug/L**	31.139	810	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45		98.9			
	Ni	60					
>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.5			
	Tl	205					
	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: Tuesday, April 13, 2010 20:42:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.205

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.759**	**ug/L**	4.874	8274	0.019
>	Sc	45		**ug/L**		434593	434592.615
	Ni	60	**48.638**	**ug/L**	1.610	43384	0.100
>	Ge	74		**ug/L**		236941	236940.810
	As	75	**51.247**	**ug/L**	3.030	33367	0.141
	Se	77		**ug/L**		5279	0.007
	Se	82	**53.315**	**ug/L**	4.185	3408	0.014
	Kr	83		**ug/L**		91	0.000
>	Lu	175		**ug/L**		339645	339644.555
	Tl	205	**49.628**	**ug/L**	2.432	709571	2.081
	U	238	**50.501**	**ug/L**	1.194	1822195	5.364

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9	109.517				
>	Sc	45		97.5			
	Ni	60	97.277				
>	Ge	74		93.3			
	As	75	102.494				
	Se	77					
	Se	82	106.630				
	Kr	83					
>	Lu	175		97.3			
	Tl	205	99.256				
	U	238	101.002				

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: Tuesday, April 13, 2010 20:46:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	872.528	19	0.000
>	Sc	45		**ug/L**		430488	430487.529
	Ni	60	**-0.021**	**ug/L**	62.894	107	-0.000
>	Ge	74		**ug/L**		235273	235273.278
	As	75	**0.335**	**ug/L**	106.950	204	0.001
	Se	77		**ug/L**		3031	-0.002
	Se	82	**1.568**	**ug/L**	42.431	97	0.000
	Kr	83		**ug/L**		78	-0.000
>	Lu	175		**ug/L**		338574	338574.449
	Tl	205	**0.187**	**ug/L**	6.245	5440	0.008
	U	238	**0.005**	**ug/L**	27.419	815	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		96.6			
	Ni	60					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					
	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: Tuesday, April 13, 2010 21:19:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.214

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.357**	**ug/L**	6.822	8443	0.019
>	Sc	45		**ug/L**		446968	446968.450
	Ni	60	**48.657**	**ug/L**	1.021	44640	0.100
>	Ge	74		**ug/L**		244811	244811.344
	As	75	**50.472**	**ug/L**	1.342	33965	0.139
	Se	77		**ug/L**		5438	0.007
	Se	82	**51.092**	**ug/L**	2.757	3377	0.014
	Kr	83		**ug/L**		94	0.000
>	Lu	175		**ug/L**		342022	342021.972
	Tl	205	**50.446**	**ug/L**	1.529	726226	2.116
	U	238	**51.043**	**ug/L**	2.664	1854277	5.421

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	108.714				
>	Sc	45		100.3			
	Ni	60	97.314				
>	Ge	74		96.4			
	As	75	100.944				
	Se	77					
	Se	82	102.185				
	Kr	83					
>	Lu	175		98.0			
	Tl	205	100.891				
	U	238	102.087				

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: Tuesday, April 13, 2010 21:23:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.002**	**ug/L**	878.977	18	-0.000
>	Sc	45		**ug/L**		446443	446443.357
	Ni	60	**-0.024**	**ug/L**	35.726	108	-0.000
>	Ge	74		**ug/L**		242490	242490.488
	As	75	**0.115**	**ug/L**	82.812	65	0.000
	Se	77		**ug/L**		3054	-0.002
	Se	82	**0.436**	**ug/L**	98.704	25	0.000
	Kr	83		**ug/L**		79	-0.000
>	Lu	175		**ug/L**		339061	339061.237
	Tl	205	**0.169**	**ug/L**	11.493	5192	0.007
	U	238	**0.005**	**ug/L**	11.025	815	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		100.2			
	Ni	60					
>	Ge	74		95.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.2			
	Tl	205					
	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: Tuesday, April 13, 2010 22:00:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.224

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.402**	**ug/L**	9.487	8260	0.019
>	Sc	45		**ug/L**		436956	436955.815
	Ni	60	**49.138**	**ug/L**	0.352	44072	0.101
>	Ge	74		**ug/L**		239779	239779.169
	As	75	**49.880**	**ug/L**	0.813	32877	0.137
	Se	77		**ug/L**		5353	0.007
	Se	82	**50.395**	**ug/L**	4.218	3262	0.014
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		337283	337282.635
	Tl	205	**50.366**	**ug/L**	3.052	714920	2.112
	U	238	**50.940**	**ug/L**	1.128	1825248	5.410

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	108.804				
>	Sc	45		98.1			
	Ni	60	98.275				
>	Ge	74		94.4			
	As	75	99.760				
	Se	77					
	Se	82	100.791				
	Kr	83					
>	Lu	175		96.6			
	Tl	205	100.732				
	U	238	101.880				

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: Tuesday, April 13, 2010 22:04:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.031	ug/L	50.968	13	-0.000
>	Sc	45		ug/L		429133	429133.032
	Ni	60	-0.025	ug/L	42.376	104	-0.000
>	Ge	74		ug/L		234512	234512.031
	As	75	-0.111	ug/L	238.188	-82	-0.000
	Se	77		ug/L		3018	-0.002
	Se	82	0.012	ug/L	2849.190	-2	0.000
	Kr	83		ug/L		76	-0.000
>	Lu	175		ug/L		333848	333848.305
	Tl	205	0.169	ug/L	10.913	5114	0.007
	U	238	0.005	ug/L	24.888	798	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		96.3			
	Ni	60					
>	Ge	74		92.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.7			
	Tl	205					
	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: Tuesday, April 13, 2010 22:33:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.990**	**ug/L**	4.977	8187	0.018
>	Sc	45		**ug/L**		444298	444297.656
	Ni	60	**48.274**	**ug/L**	0.454	44030	0.099
>	Ge	74		**ug/L**		240072	240072.098
	As	75	**51.144**	**ug/L**	0.458	33751	0.141
	Se	77		**ug/L**		5197	0.007
	Se	82	**50.406**	**ug/L**	2.237	3266	0.014
	Kr	83		**ug/L**		95	0.000
>	Lu	175		**ug/L**		335587	335586.926
	Tl	205	**49.885**	**ug/L**	2.060	704626	2.092
	U	238	**50.990**	**ug/L**	3.121	1817114	5.416

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9	105.980				
>	Sc	45		99.7			
	Ni	60	96.548				
>	Ge	74		94.5			
	As	75	102.288				
	Se	77					
	Se	82	100.812				
	Kr	83					
>	Lu	175		96.2			
	Tl	205	99.771				
	U	238	101.979				

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: Tuesday, April 13, 2010 22:37:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.008**	**ug/L**	186.939	20	0.000
>	Sc	45		**ug/L**		441060	441060.407
	Ni	60	**-0.038**	**ug/L**	23.812	95	-0.000
>	Ge	74		**ug/L**		241609	241608.963
	As	75	**-0.125**	**ug/L**	143.084	-94	-0.000
	Se	77		**ug/L**		2927	-0.003
	Se	82	**-0.066**	**ug/L**	474.093	-8	-0.000
	Kr	83		**ug/L**		84	0.000
>	Lu	175		**ug/L**		333904	333904.174
	Tl	205	**0.137**	**ug/L**	5.943	4663	0.006
	U	238	**0.006**	**ug/L**	15.217	832	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		99.0			
	Ni	60					
>	Ge	74		95.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.7			
	Tl	205					
	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: Tuesday, April 13, 2010 23:01:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.091**	**ug/L**	4.108	8245	0.019
>	Sc	45		**ug/L**		438310	438310.405
	Ni	60	**48.393**	**ug/L**	2.466	43529	0.099
>	Ge	74		**ug/L**		235675	235674.556
	As	75	**50.830**	**ug/L**	1.106	32930	0.140
	Se	77		**ug/L**		5179	0.007
	Se	82	**50.535**	**ug/L**	0.979	3216	0.014
	Kr	83		**ug/L**		101	0.000
>	Lu	175		**ug/L**		333946	333945.955
	Tl	205	**49.646**	**ug/L**	2.126	697847	2.082
	U	238	**50.917**	**ug/L**	1.704	1806242	5.408

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	108.182				
>	Sc	45		98.4			
	Ni	60	96.786				
>	Ge	74		92.8			
	As	75	101.660				
	Se	77					
	Se	82	101.070				
	Kr	83					
>	Lu	175		95.7			
	Tl	205	99.293				
	U	238	101.833				

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: Tuesday, April 13, 2010 23:05:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	482.265	18	0.000
>	Sc	45		**ug/L**		429776	429776.403
	Ni	60	**-0.022**	**ug/L**	61.873	106	-0.000
>	Ge	74		**ug/L**		232179	232178.814
	As	75	**0.214**	**ug/L**	233.343	129	0.001
	Se	77		**ug/L**		2774	-0.003
	Se	82	**0.029**	**ug/L**	525.249	-1	0.000
	Kr	83		**ug/L**		80	0.000
>	Lu	175		**ug/L**		332645	332644.914
	Tl	205	**0.140**	**ug/L**	9.630	4685	0.006
	U	238	**0.006**	**ug/L**	17.652	839	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		96.5			
	Ni	60					
>	Ge	74		91.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.3			
	Tl	205					
	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: Tuesday, April 13, 2010 23:47:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.250

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.007**	**ug/L**	7.052	8004	0.019
>	Sc	45		**ug/L**		426530	426529.786
	Ni	60	**48.395**	**ug/L**	1.209	42374	0.099
>	Ge	74		**ug/L**		232777	232777.353
	As	75	**50.663**	**ug/L**	3.592	32404	0.139
	Se	77		**ug/L**		5089	0.007
	Se	82	**49.468**	**ug/L**	8.041	3106	0.013
	Kr	83		**ug/L**		95	0.000
>	Lu	175		**ug/L**		324648	324647.795
	Tl	205	**50.441**	**ug/L**	0.791	689442	2.115
	U	238	**51.232**	**ug/L**	0.749	1767243	5.442

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	108.015				
>	Sc	45		95.7			
	Ni	60	96.791				
>	Ge	74		91.6			
	As	75	101.325				
	Se	77					
	Se	82	98.937				
	Kr	83					
>	Lu	175		93.0			
	Tl	205	100.883				
	U	238	102.465				

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: Tuesday, April 13, 2010 23:51:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.251

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.022**	**ug/L**	99.305	21	0.000
>	Sc	45		**ug/L**		423358	423357.697
	Ni	60	**-0.030**	**ug/L**	21.035	97	-0.000
>	Ge	74		**ug/L**		228560	228560.231
	As	75	**0.176**	**ug/L**	297.057	101	0.000
	Se	77		**ug/L**		2677	-0.003
	Se	82	**-0.026**	**ug/L**	560.347	-5	-0.000
	Kr	83		**ug/L**		80	0.000
>	Lu	175		**ug/L**		319461	319460.996
	Tl	205	**0.187**	**ug/L**	5.932	5134	0.008
	U	238	**0.007**	**ug/L**	14.292	853	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45		95.0			
	Ni	60					
>	Ge	74		90.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.5			
	Tl	205					
	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: Wednesday, April 14, 2010 00:32:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.261

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.841**	**ug/L**	8.860	8155	0.019
>	Sc	45		**ug/L**		436015	436014.780
	Ni	60	**48.474**	**ug/L**	0.816	43384	0.099
>	Ge	74		**ug/L**		237078	237077.728
	As	75	**50.804**	**ug/L**	0.277	33110	0.140
	Se	77		**ug/L**		4901	0.006
	Se	82	**49.957**	**ug/L**	0.188	3198	0.014
	Kr	83		**ug/L**		111	0.000
>	Lu	175		**ug/L**		332442	332441.746
	Tl	205	**49.578**	**ug/L**	1.754	693897	2.079
	U	238	**50.437**	**ug/L**	0.289	1781554	5.357

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	107.681				
>	Sc	45		97.9			
	Ni	60	96.949				
>	Ge	74		93.3			
	As	75	101.608				
	Se	77					
	Se	82	99.914				
	Kr	83					
>	Lu	175		95.3			
	Tl	205	99.157				
	U	238	100.874				

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: Wednesday, April 14, 2010 00:36:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.018**	**ug/L**	110.791	15	-0.000
>	Sc	45		**ug/L**		422746	422745.766
	Ni	60	**-0.014**	**ug/L**	70.787	111	-0.000
>	Ge	74		**ug/L**		232979	232979.441
	As	75	**-0.018**	**ug/L**	2316.777	-23	-0.000
	Se	77		**ug/L**		2595	-0.004
	Se	82	**0.033**	**ug/L**	474.578	-1	0.000
	Kr	83		**ug/L**		85	0.000
>	Lu	175		**ug/L**		326485	326485.123
	Tl	205	**0.159**	**ug/L**	9.651	4859	0.007
	U	238	**0.007**	**ug/L**	5.937	853	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45		94.9			
	Ni	60					
>	Ge	74		91.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.5			
	Tl	205					
	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: 1202065014
Sample Date/Time: Wednesday, April 14, 2010 00:40:39
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962569|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\1202065014.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	8788.328	19	0.000
>	Sc	45		**ug/L**		461521	461520.977
	Ni	60	**0.023**	**ug/L**	115.463	156	0.000
>	Ge	74		**ug/L**		244787	244787.381
	As	75	**-0.021**	**ug/L**	948.366	-27	-0.000
	Se	77		**ug/L**		1743	-0.008
	Se	82	**-0.025**	**ug/L**	493.954	-5	-0.000
	Kr	83		**ug/L**		83	0.000
>	Lu	175		**ug/L**		350803	350803.451
	Tl	205	**-0.020**	**ug/L**	31.010	2590	-0.001
	U	238	**-0.015**	**ug/L**	2.367	110	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		103.6			
	Ni	60					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.5			
	Tl	205					
	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: 1202065015
Sample Date/Time: Wednesday, April 14, 2010 00:44:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962569|40|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\1202065015.264

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**23.167**	**ug/L**	4.819	3512	0.008
>	Sc	45		**ug/L**		434780	434780.361
	Ni	60	**38.111**	**ug/L**	2.215	34032	0.078
>	Ge	74		**ug/L**		237066	237065.867
	As	75	**29.446**	**ug/L**	2.665	19177	0.081
	Se	77		**ug/L**		6062	0.011
	Se	82	**82.613**	**ug/L**	2.353	5288	0.022
	Kr	83		**ug/L**		93	0.000
>	Lu	175		**ug/L**		333512	333511.561
	Tl	205	**36.245**	**ug/L**	3.724	509504	1.520
	U	238	**0.548**	**ug/L**	1.206	20043	0.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45		97.6			
	Ni	60					
>	Ge	74		93.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.6			
	Tl	205					
	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: 248517001
Sample Date/Time: Wednesday, April 14, 2010 01:01:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962569|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\248517001.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.413**	**ug/L**	10.718	257	0.000
>	Sc	45		**ug/L**		483877	483877.214
	Ni	60	**9.355**	**ug/L**	1.554	9406	0.019
>	Ge	74		**ug/L**		239281	239281.358
	As	75	**3.847**	**ug/L**	7.671	2519	0.011
	Se	77		**ug/L**		1714	-0.008
	Se	82	**0.027**	**ug/L**	377.886	-2	0.000
	Kr	83		**ug/L**		135	0.000
>	Lu	175		**ug/L**		357974	357974.062
	Tl	205	**0.217**	**ug/L**	9.357	6190	0.009
	U	238	**3.023**	**ug/L**	2.618	115570	0.321

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		108.6			
	Ni	60					
>	Ge	74		94.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.6			
	Tl	205					
	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: Wednesday, April 14, 2010 01:17:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.215**	**ug/L**	7.429	8264	0.019
>	Sc	45		**ug/L**		438498	438498.297
	Ni	60	**47.681**	**ug/L**	2.153	42917	0.098
>	Ge	74		**ug/L**		237522	237522.427
	As	75	**50.717**	**ug/L**	1.602	33109	0.139
	Se	77		**ug/L**		5030	0.006
	Se	82	**50.410**	**ug/L**	2.669	3232	0.014
	Kr	83		**ug/L**		100	0.000
>	Lu	175		**ug/L**		334164	334164.154
	Tl	205	**49.159**	**ug/L**	3.228	691468	2.062
	U	238	**50.049**	**ug/L**	1.231	1776855	5.316

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	108.430				
>	Sc	45		98.4			
	Ni	60	95.363				
>	Ge	74		93.5			
	As	75	101.434				
	Se	77					
	Se	82	100.821				
	Kr	83					
>	Lu	175		95.7			
	Tl	205	98.317				
	U	238	100.098				

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: Wednesday, April 14, 2010 01:21:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	1967.065	18	0.000
>	Sc	45		**ug/L**		431990	431989.679
	Ni	60	**-0.026**	**ug/L**	41.595	103	-0.000
>	Ge	74		**ug/L**		235100	235099.995
	As	75	**0.078**	**ug/L**	671.987	41	0.000
	Se	77		**ug/L**		2614	-0.004
	Se	82	**0.286**	**ug/L**	31.343	15	0.000
	Kr	83		**ug/L**		79	-0.000
>	Lu	175		**ug/L**		328514	328514.439
	Tl	205	**0.121**	**ug/L**	9.384	4364	0.005
	U	238	**0.006**	**ug/L**	13.805	846	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		96.9			
	Ni	60					
>	Ge	74		92.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.1			
	Tl	205					
	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: Wednesday, April 14, 2010 01:54:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 8.281

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.486**	**ug/L**	6.408	8093	0.019
>	Sc	45		**ug/L**		435211	435211.215
	Ni	60	**47.858**	**ug/L**	1.166	42758	0.098
>	Ge	74		**ug/L**		236627	236626.885
	As	75	**49.574**	**ug/L**	1.894	32239	0.136
	Se	77		**ug/L**		4833	0.005
	Se	82	**49.604**	**ug/L**	2.666	3168	0.013
	Kr	83		**ug/L**		95	0.000
>	Lu	175		**ug/L**		326662	326662.327
	Tl	205	**50.284**	**ug/L**	2.257	691443	2.109
	U	238	**50.864**	**ug/L**	0.619	1765445	5.402

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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	106.972				
>	Sc	45		97.7			
	Ni	60	95.715				
>	Ge	74		93.1			
	As	75	99.148				
	Se	77					
	Se	82	99.208				
	Kr	83					
>	Lu	175		93.6			
	Tl	205	100.568				
	U	238	101.728				

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: Wednesday, April 14, 2010 01:58:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 9.282

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.032**	**ug/L**	103.870	13	-0.000
>	Sc	45		**ug/L**		434623	434623.379
	Ni	60	**-0.017**	**ug/L**	63.440	112	-0.000
>	Ge	74		**ug/L**		232422	232422.274
	As	75	**0.160**	**ug/L**	268.388	93	0.000
	Se	77		**ug/L**		2643	-0.004
	Se	82	**-0.117**	**ug/L**	169.226	-10	-0.000
	Kr	83		**ug/L**		84	0.000
>	Lu	175		**ug/L**		330060	330059.567
	Tl	205	**0.123**	**ug/L**	17.287	4415	0.005
	U	238	**0.007**	**ug/L**	16.582	868	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45		97.5			
	Ni	60					
>	Ge	74		91.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.6			
	Tl	205					
	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: 1202065016
Sample Date/Time: Wednesday, April 14, 2010 02:10:44
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962569|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\1202065016.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.209**	**ug/L**	13.121	395	0.001
>	Sc	45		**ug/L**		488433	488432.503
	Ni	60	**18.167**	**ug/L**	1.397	18305	0.037
>	Ge	74		**ug/L**		239484	239483.902
	As	75	**4.452**	**ug/L**	4.010	2920	0.012
	Se	77		**ug/L**		1729	-0.008
	Se	82	**-0.335**	**ug/L**	144.993	-25	-0.000
	Kr	83		**ug/L**		159	0.000
>	Lu	175		**ug/L**		360610	360610.021
	Tl	205	**0.034**	**ug/L**	22.323	3482	0.001
	U	238	**2.400**	**ug/L**	2.724	92565	0.255

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9					
>	Sc	45		109.6			
	Ni	60					
>	Ge	74		94.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.3			
	Tl	205					
	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: 1202065017
Sample Date/Time: Wednesday, April 14, 2010 02:14:52
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962569|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\1202065017.286

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**26.554**	**ug/L**	7.185	4549	0.009
>	Sc	45		**ug/L**		491664	491663.556
	Ni	60	**42.754**	**ug/L**	3.571	43154	0.088
>	Ge	74		**ug/L**		237963	237963.417
	As	75	**42.899**	**ug/L**	2.131	28056	0.118
	Se	77		**ug/L**		2238	-0.006
	Se	82	**8.898**	**ug/L**	5.615	569	0.002
	Kr	83		**ug/L**		210	0.001
>	Lu	175		**ug/L**		379917	379917.361
	Tl	205	**41.473**	**ug/L**	2.109	663856	1.739
	U	238	**26.411**	**ug/L**	0.613	1066474	2.805

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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 % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		110.3			
	Ni	60					
>	Ge	74		93.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		108.9			
	Tl	205					
	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: 1202065024
Sample Date/Time: Wednesday, April 14, 2010 02:18:59
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 962569|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\1202065024.287

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.315**	**ug/L**	7.989	4172	0.008
>	Sc	45		**ug/L**		492403	492403.223
	Ni	60	**44.776**	**ug/L**	3.138	45249	0.092
>	Ge	74		**ug/L**		239655	239655.298
	As	75	**39.521**	**ug/L**	2.330	26026	0.109
	Se	77		**ug/L**		2186	-0.006
	Se	82	**8.051**	**ug/L**	2.707	518	0.002
	Kr	83		**ug/L**		167	0.000
>	Lu	175		**ug/L**		359785	359785.433
	Tl	205	**43.486**	**ug/L**	1.181	659037	1.824
	U	238	**26.373**	**ug/L**	3.071	1008182	2.801

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		110.5			
	Ni	60					
>	Ge	74		94.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.1			
	Tl	205					
	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: 1202065018
Sample Date/Time: Wednesday, April 14, 2010 02:23:06
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962569|10|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\1202065018.288

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.383**	**ug/L**	8.651	78	0.000
>	Sc	45		**ug/L**		448661	448661.199
	Ni	60	**3.105**	**ug/L**	1.912	2982	0.006
>	Ge	74		**ug/L**		238785	238784.941
	As	75	**0.893**	**ug/L**	50.078	573	0.002
	Se	77		**ug/L**		1938	-0.007
	Se	82	**-0.004**	**ug/L**	1799.731	-4	-0.000
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		338939	338939.349
	Tl	205	**0.074**	**ug/L**	16.420	3832	0.003
	U	238	**0.555**	**ug/L**	2.510	20612	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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		100.7			
	Ni	60					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.1			
	Tl	205					
	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: Wednesday, April 14, 2010 02:27:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 6.289

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.953**	**ug/L**	4.856	8060	0.018
>	Sc	45		**ug/L**		437800	437800.386
	Ni	60	**47.916**	**ug/L**	3.275	43061	0.098
>	Ge	74		**ug/L**		236438	236438.382
	As	75	**51.087**	**ug/L**	3.182	33197	0.140
	Se	77		**ug/L**		4959	0.006
	Se	82	**51.318**	**ug/L**	2.040	3276	0.014
	Kr	83		**ug/L**		92	0.000
>	Lu	175		**ug/L**		333438	333437.560
	Tl	205	**49.556**	**ug/L**	2.907	695597	2.078
	U	238	**50.303**	**ug/L**	0.907	1782124	5.343

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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
	Be	9	105.907				
>	Sc	45		98.3			
	Ni	60	95.833				
>	Ge	74		93.1			
	As	75	102.173				
	Se	77					
	Se	82	102.636				
	Kr	83					
>	Lu	175		95.5			
	Tl	205	99.111				
	U	238	100.605				

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: Wednesday, April 14, 2010 02:31:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100413\QC Std 7.290

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.029	ug/L	63.384	14	-0.000
>	Sc	45		ug/L		442975	442974.813
	Ni	60	-0.017	ug/L	12.135	114	-0.000
>	Ge	74		ug/L		241406	241406.138
	As	75	0.052	ug/L	367.444	24	0.000
	Se	77		ug/L		2606	-0.004
	Se	82	-0.123	ug/L	165.926	-11	-0.000
	Kr	83		ug/L		86	0.000
>	Lu	175		ug/L		339182	339182.102
	Tl	205	0.174	ug/L	11.511	5264	0.007
	U	238	0.007	ug/L	6.349	886	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
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	
Lu	175	Linear Thru Zero	
Tl	205	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 % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.4			
	Ni	60					
>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.2			
	Tl	205					
	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

==========

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\031610S1.SIF
Batch ID:
Results Data Set: 031610S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/16/2010 09:37:07**
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]	0.0004	0.0017	0.0004	09:38:00	Yes
2		[0.00]	0.0004	0.0029	0.0004	09:38:30	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0000				
%RSD:		0.00	12.48				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/16/2010 09:38:48**
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]	0.0027	0.0138	0.0031	09:39:39	Yes
2		[0.2]	0.0027	0.0142	0.0031	09:40:09	Yes
Mean:		[0.2]	0.0027				
SD:		0.0	0.0000				
%RSD:		0.0	0.24				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01365 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/16/2010 09:40:28**
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]	0.0067	0.0303	0.0070	09:41:19	Yes
2		[0.5]	0.0067	0.0307	0.0071	09:41:49	Yes
Mean:		[0.5]	0.0067				
SD:		0.0	0.0000				
%RSD:		0.0	0.46				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999945 Slope: 0.01333 Intercept: 0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/16/2010 09:42:08**
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]	0.0276	0.1221	0.0280	09:42:59	Yes
2		[2.0]	0.0276	0.1216	0.0280	09:43:29	Yes
Mean:		[2.0]	0.0276				
SD:		0.0	0.0000				
%RSD:		0.0	0.11				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999963 Slope: 0.01383 Intercept: -0.00008

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/16/2010 09:43:49**
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]	0.0664	0.2938	0.0668	09:44:41	Yes
2		[5.0]	0.0668	0.2936	0.0672	09:45:11	Yes
Mean:		[5.0]	0.0666				
SD:		0.0	0.0003				
%RSD:		0.0	0.47				

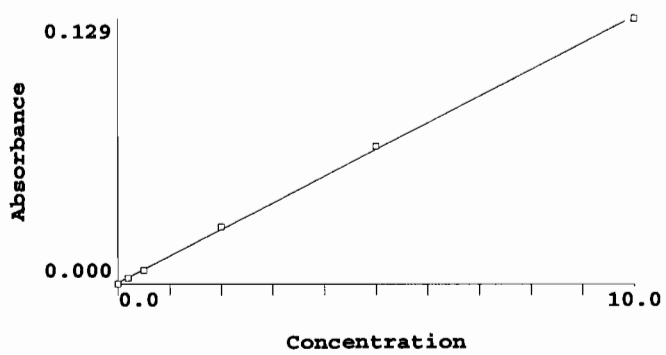
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999886 Slope: 0.01334 Intercept: 0.00018

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/16/2010 09:45:31**
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]	0.1289	0.5704	0.1293	09:46:21	Yes
2		[10.0]	0.1287	0.5686	0.1290	09:46:51	Yes
Mean:		[10.0]	0.1288				
SD:		0.0	0.0002				
%RSD:		0.0	0.16				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999803 Slope: 0.01290 Intercept: 0.00067



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	-0.052	0.00	12.5
S0.2	0.0027	0.2	0.159	0.00	0.2
S0.5	0.0067	0.5	0.465	0.00	0.5
S2.0	0.0276	2.0	2.087	0.00	0.1

S5.0	0.0666	5.0	5.111	0.00	0.5
S10.0	0.1288	10.0	9.930	0.00	0.2

Correlation Coef.: 0.999803 Slope: 0.01290 Intercept: 0.00067

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/16/2010 09:47:10**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.242	5.242	0.0683	0.3021	0.0687	09:48:00	Yes
2	5.235	5.235	0.0682	0.2999	0.0686	09:48:30	Yes
Mean:	5.238	5.238	0.0683				
SD:	0.005	0.005	0.0001				
%RSD:	0.099	0.099	0.10				

QC value within limits for Hg 253.7 Recovery = 104.77%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/16/2010 09:48:50**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	0.0000	0.0020	0.0004	09:49:41	Yes
2	-0.055	-0.055	-0.0000	0.0017	0.0004	09:50:11	Yes
Mean:	-0.053	-0.053	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	4.763	4.763	370.42				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/16/2010 09:50:31**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.166	0.166	0.0028	0.0153	0.0032	09:51:22	Yes
2	0.164	0.164	0.0028	0.0148	0.0032	09:51:52	Yes
Mean:	0.165	0.165	0.0028				
SD:	0.001	0.001	0.0000				
%RSD:	0.726	0.726	0.55				

QC value within limits for Hg 253.7 Recovery = 82.36%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 09:52:12**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.190	5.190	0.0676	0.2985	0.0680	09:53:02	Yes
2	5.167	5.167	0.0673	0.2970	0.0677	09:53:32	Yes
Mean:	5.178	5.178	0.0675				
SD:	0.016	0.016	0.0002				
%RSD:	0.318	0.318	0.31				

QC value within limits for Hg 253.7 Recovery = 103.56%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 09:53:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.056	-0.056	-0.0000	0.0016	0.0003	09:54:42	Yes
2	-0.055	-0.055	-0.0000	0.0017	0.0004	09:55:12	Yes
Mean:	-0.055	-0.055	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.143	1.143	21.71				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202056625|958979|1 **Date Collected: 3/16/2010 09:55:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056625|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	0.0000	0.0032	0.0004	09:56:23	Yes
2	-0.049	-0.049	0.0000	0.0029	0.0004	09:56:53	Yes
Mean:	-0.049	-0.049	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.950	0.950	15.31				

==========

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202056626|958979|10 **Date Collected: 3/16/2010 09:57:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056626|958979|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.233	0.233	0.0037	0.0183	0.0041	09:58:04	Yes
2	0.233	0.233	0.0037	0.0184	0.0041	09:58:34	Yes
Mean:	0.233	0.233	0.0037				
SD:	0.000	0.000	0.0000				
%RSD:	0.026	0.026	0.02				

==========

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248233001|958979|1 **Date Collected: 3/16/2010 09:58:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 248233001|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.384	0.384	0.0056	0.0256	0.0060	09:59:45	Yes
2	0.377	0.377	0.0055	0.0271	0.0059	10:00:15	Yes
Mean:	0.380	0.380	0.0056				
SD:	0.004	0.004	0.0001				
%RSD:	1.172	1.172	1.03				

==========

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202056627|958979|1 **Date Collected: 3/16/2010 10:00:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056627|958979|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

==========

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\031610S1.SIF
Batch ID:
Results Data Set: 031610S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 10:08:34**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.082	5.082	0.0662	0.2944	0.0666	10:09:24	Yes
2	5.151	5.151	0.0671	0.2975	0.0675	10:09:54	Yes
Mean:	5.116	5.116	0.0667				
SD:	0.049	0.049	0.0006				
%RSD:	0.957	0.957	0.95				

QC value within limits for Hg 253.7 Recovery = 102.32%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 10:10:13**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0001	0.0016	0.0003	10:11:04	Yes
2	-0.058	-0.058	-0.0001	0.0017	0.0003	10:11:33	Yes
Mean:	-0.059	-0.059	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	0.883	0.883	8.02				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 12**
Sample ID: 1202056697|959031|1 **Date Collected: 3/16/2010 10:11:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056697|959031|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0001	0.0032	0.0005	10:12:45	Yes
2	-0.058	-0.058	-0.0001	0.0016	0.0003	10:13:15	Yes
Mean:	-0.053	-0.053	-0.0000				
SD:	0.007	0.007	0.0001				
%RSD:	13.78	13.78	>999.9%				

==========

Sequence No.: 4 **Autosampler Location: 13**
Sample ID: 247729001|959031|1 **Date Collected: 3/16/2010 10:13:35**
Analyst: JXL **Data Type: Original**

Sequence No.: 9
Sample ID: 1202056627|958979|1
Analyst: JXL
Autosampler Location: 18
Date Collected: 3/16/2010 10:21:55
Data Type: Original

Replicate Data: 1202056627|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.319	0.319	0.0048	0.0240	0.0052	10:22:46	Yes
2	0.316	0.316	0.0047	0.0237	0.0051	10:23:16	Yes
Mean:	0.318	0.318	0.0048				
SD:	0.003	0.003	0.0000				
%RSD:	0.808	0.808	0.69				

Sequence No.: 10
Sample ID: 1202056628|958979|1
Analyst: JXL
Autosampler Location: 19
Date Collected: 3/16/2010 10:23:35
Data Type: Original

Replicate Data: 1202056628|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.432	2.432	0.0321	0.1461	0.0324	10:24:25	Yes
2	2.444	2.444	0.0322	0.1461	0.0326	10:24:55	Yes
Mean:	2.438	2.438	0.0321				
SD:	0.008	0.008	0.0001				
%RSD:	0.348	0.348	0.34				

Sequence No.: 11
Sample ID: 1202056630|958979|1
Analyst: JXL
Autosampler Location: 20
Date Collected: 3/16/2010 10:25:14
Data Type: Original

Replicate Data: 1202056630|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.382	2.382	0.0314	0.1432	0.0318	10:26:06	Yes
2	2.374	2.374	0.0313	0.1421	0.0317	10:26:35	Yes
Mean:	2.378	2.378	0.0314				
SD:	0.006	0.006	0.0001				
%RSD:	0.244	0.244	0.24				

Sequence No.: 12
Sample ID: 1202056629|958979|5
Analyst: JXL
Autosampler Location: 21
Date Collected: 3/16/2010 10:26:55
Data Type: Original

Replicate Data: 1202056629|958979|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0008	0.0055	0.0012	10:27:46	Yes
2	0.013	0.013	0.0008	0.0058	0.0012	10:28:16	Yes
Mean:	0.012	0.012	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	6.937	6.937	1.31				

Sequence No.: 13
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 3/16/2010 10:28:36
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.307	5.307	0.0692	0.3067	0.0696	10:29:26	Yes
2	5.280	5.280	0.0688	0.3048	0.0692	10:29:56	Yes
Mean:	5.294	5.294	0.0690				

SD:	0.019	0.019	0.0002
%RSD:	0.364	0.364	0.36

QC value within limits for Hg 253.7 Recovery = 105.88%
All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 10:30:15**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0001	0.0013	0.0003	10:31:06	Yes
2	-0.058	-0.058	-0.0001	0.0015	0.0003	10:31:36	Yes
Mean:	-0.059	-0.059	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.147	3.147	26.72				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15 **Autosampler Location: 22**
Sample ID: 248233002|958979|1 **Date Collected: 3/16/2010 10:31:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 248233002|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.134	0.134	0.0024	0.0129	0.0028	10:32:47	Yes
2	0.133	0.133	0.0024	0.0125	0.0028	10:33:17	Yes
Mean:	0.133	0.133	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.676	0.676	0.49				

Sequence No.: 16 **Autosampler Location: 23**
Sample ID: 248233003|958979|1 **Date Collected: 3/16/2010 10:33:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 248233003|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.095	0.095	0.0019	0.0102	0.0023	10:34:29	Yes
2	0.093	0.093	0.0019	0.0100	0.0023	10:34:59	Yes
Mean:	0.094	0.094	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	1.271	1.271	0.82				

Sequence No.: 17 **Autosampler Location: 24**
Sample ID: 248233004|958979|1 **Date Collected: 3/16/2010 10:35:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 248233004|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.094	0.094	0.0019	0.0104	0.0023	10:36:10	Yes
2	0.086	0.086	0.0018	0.0099	0.0022	10:36:40	Yes
Mean:	0.090	0.090	0.0018				
SD:	0.005	0.005	0.0001				
%RSD:	5.907	5.907	3.74				

Sequence No.: 18 **Autosampler Location: 25**
Sample ID: 248233005|958979|1 **Date Collected: 3/16/2010 10:37:00**
Analyst: JXL **Data Type: Original**

Sequence No.: 23
Sample ID: 248233010|958979|1
Analyst: JXL
Autosampler Location: 30
Date Collected: 3/16/2010 10:45:23
Data Type: Original

Replicate Data: 248233010|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.086	0.086	0.0018	0.0095	0.0022	10:46:14	Yes
2	0.089	0.089	0.0018	0.0096	0.0022	10:46:44	Yes
Mean:	0.088	0.088	0.0018				
SD:	0.002	0.002	0.0000				
%RSD:	2.652	2.652	1.66				

Sequence No.: 24
Sample ID: 248233011|958979|1
Analyst: JXL
Autosampler Location: 31
Date Collected: 3/16/2010 10:47:03
Data Type: Original

Replicate Data: 248233011|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.386	0.386	0.0057	0.0268	0.0060	10:47:53	Yes
2	0.386	0.386	0.0057	0.0265	0.0061	10:48:23	Yes
Mean:	0.386	0.386	0.0057				
SD:	0.000	0.000	0.0000				
%RSD:	0.085	0.085	0.08				

Sequence No.: 25
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 3/16/2010 10:48:43
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.054	5.054	0.0659	0.2912	0.0663	10:49:33	Yes
2	5.057	5.057	0.0659	0.2906	0.0663	10:50:02	Yes
Mean:	5.055	5.055	0.0659				
SD:	0.002	0.002	0.0000				
%RSD:	0.041	0.041	0.04				

QC value within limits for Hg 253.7 Recovery = 101.10%
All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 3/16/2010 10:50:21
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0002	0.0009	0.0002	10:51:12	Yes
2	-0.062	-0.062	-0.0001	0.0011	0.0003	10:51:42	Yes
Mean:	-0.063	-0.063	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	2.738	2.738	15.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 27
Sample ID: 248233012|958979|1
Analyst: JXL
Autosampler Location: 32
Date Collected: 3/16/2010 10:52:02
Data Type: Original

Replicate Data: 248233012|958979|1

Sequence No.: 37 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 11:08:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.123	5.123	0.0668	0.2956	0.0672	11:09:40	Yes
2	5.128	5.128	0.0668	0.2937	0.0672	11:10:10	Yes
Mean:	5.125	5.125	0.0668				
SD:	0.003	0.003	0.0000				
%RSD:	0.062	0.062	0.06				

QC value within limits for Hg 253.7 Recovery = 102.51%
All analyte(s) passed QC.

Sequence No.: 38 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 11:10:29**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0002	0.0005	0.0002	11:11:20	Yes
2	-0.065	-0.065	-0.0002	0.0009	0.0002	11:11:50	Yes
Mean:	-0.065	-0.065	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.191	0.191	0.98				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 39 **Autosampler Location: 42**
Sample ID: 1202056615|958974|10 **Date Collected: 3/16/2010 11:12:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056615|958974|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.940	3.940	0.0515	0.2271	0.0519	11:13:00	Yes
2	3.957	3.957	0.0517	0.2269	0.0521	11:13:30	Yes
Mean:	3.949	3.949	0.0516				
SD:	0.012	0.012	0.0001				
%RSD:	0.294	0.294	0.29				

Sequence No.: 40 **Autosampler Location: 43**
Sample ID: 248237001|958974|1 **Date Collected: 3/16/2010 11:13:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 248237001|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.267	0.267	0.0041	0.0196	0.0045	11:14:41	Yes
2	0.262	0.262	0.0041	0.0186	0.0045	11:15:11	Yes
Mean:	0.264	0.264	0.0041				
SD:	0.003	0.003	0.0000				
%RSD:	1.137	1.137	0.95				

Sequence No.: 41 **Autosampler Location: 44**
Sample ID: 248237002|958974|1 **Date Collected: 3/16/2010 11:15:30**
Analyst: JXL **Data Type: Original**

Sample ID: 248237007|958974|1 Date Collected: 3/16/2010 11:23:54
Analyst: JXL Data Type: Original

Replicate Data: 248237007|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.338	0.338	0.0050	0.0235	0.0054	11:24:47	Yes
2	0.339	0.339	0.0050	0.0234	0.0054	11:25:17	Yes
Mean:	0.338	0.338	0.0050				
SD:	0.001	0.001	0.0000				
%RSD:	0.283	0.283	0.25				

Sequence No.: 47 Autosampler Location: 50
Sample ID: 248241001|958974|1 Date Collected: 3/16/2010 11:25:37
Analyst: JXL Data Type: Original

Replicate Data: 248241001|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.625	0.625	0.0087	0.0406	0.0091	11:26:28	Yes
2	0.621	0.621	0.0087	0.0402	0.0091	11:26:58	Yes
Mean:	0.623	0.623	0.0087				
SD:	0.003	0.003	0.0000				
%RSD:	0.455	0.455	0.42				

Sequence No.: 48 Autosampler Location: 51
Sample ID: 1202056616|958974|1 Date Collected: 3/16/2010 11:27:17
Analyst: JXL Data Type: Original

Replicate Data: 1202056616|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.591	0.591	0.0083	0.0385	0.0087	11:28:09	Yes
2	0.594	0.594	0.0083	0.0383	0.0087	11:28:39	Yes
Mean:	0.592	0.592	0.0083				
SD:	0.002	0.002	0.0000				
%RSD:	0.363	0.363	0.33				

Sequence No.: 49 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/16/2010 11:28:58
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.419	5.419	0.0706	0.3085	0.0710	11:29:48	Yes
2	5.385	5.385	0.0702	0.3071	0.0706	11:30:18	Yes
Mean:	5.402	5.402	0.0704				
SD:	0.024	0.024	0.0003				
%RSD:	0.444	0.444	0.44				

QC value within limits for Hg 253.7 Recovery = 108.04%
All analyte(s) passed QC.

Sequence No.: 50 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/16/2010 11:30:37
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0002	0.0007	0.0002	11:31:28	Yes
2	-0.067	-0.067	-0.0002	0.0007	0.0002	11:31:58	Yes

Mean:	-0.066	-0.066	-0.0002
SD:	0.001	0.001	0.0000
%RSD:	1.652	1.652	7.69

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 51 **Autosampler Location: 52**
Sample ID: 1202056617|958974|1 **Date Collected: 3/16/2010 11:32:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056617|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.629	2.629	0.0346	0.1568	0.0350	11:33:08	Yes
2	2.643	2.643	0.0348	0.1559	0.0352	11:33:38	Yes
Mean:	2.636	2.636	0.0347				
SD:	0.010	0.010	0.0001				
%RSD:	0.389	0.389	0.38				

==========

Sequence No.: 52 **Autosampler Location: 53**
Sample ID: 1202056619|958974|1 **Date Collected: 3/16/2010 11:33:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056619|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.649	2.649	0.0348	0.1567	0.0352	11:34:49	Yes
2	2.639	2.639	0.0347	0.1557	0.0351	11:35:18	Yes
Mean:	2.644	2.644	0.0348				
SD:	0.006	0.006	0.0001				
%RSD:	0.245	0.245	0.24				

==========

Sequence No.: 53 **Autosampler Location: 54**
Sample ID: 1202056618|958974|5 **Date Collected: 3/16/2010 11:35:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056618|958974|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0018	0.0095	0.0022	11:36:29	Yes
2	0.088	0.088	0.0018	0.0096	0.0022	11:36:59	Yes
Mean:	0.088	0.088	0.0018				
SD:	0.000	0.000	0.0000				
%RSD:	0.137	0.137	0.09				

==========

Sequence No.: 54 **Autosampler Location: 55**
Sample ID: 248241002|958974|1 **Date Collected: 3/16/2010 11:37:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 248241002|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.416	0.416	0.0060	0.0295	0.0064	11:38:10	Yes
2	0.408	0.408	0.0059	0.0280	0.0063	11:38:40	Yes
Mean:	0.412	0.412	0.0060				
SD:	0.005	0.005	0.0001				
%RSD:	1.309	1.309	1.16				

==========

Sequence No.: 55 **Autosampler Location: 56**
Sample ID: 248241003|958974|1 **Date Collected: 3/16/2010 11:38:59**
Analyst: JXL **Data Type: Original**

Sequence No.: 60 **Autosampler Location: 61**
Sample ID: 248241008|958974|1 **Date Collected: 3/16/2010 11:47:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 248241008|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.306	1.306	0.0175	0.0804	0.0179	11:48:17	Yes
2	1.304	1.304	0.0175	0.0798	0.0179	11:48:47	Yes
Mean:	1.305	1.305	0.0175				
SD:	0.001	0.001	0.0000				
%RSD:	0.101	0.101	0.10				

==========

Sequence No.: 61 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 11:49:08**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.141	5.141	0.0670	0.2942	0.0674	11:49:58	Yes
2	5.059	5.059	0.0660	0.2873	0.0664	11:50:28	Yes
Mean:	5.100	5.100	0.0665				
SD:	0.058	0.058	0.0007				
%RSD:	1.137	1.137	1.13				

QC value within limits for Hg 253.7 Recovery = 102.01%
All analyte(s) passed QC.

==========

Sequence No.: 62 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 11:50:47**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0002	0.0007	0.0002	11:51:38	Yes
2	-0.067	-0.067	-0.0002	0.0007	0.0002	11:52:08	Yes
Mean:	-0.066	-0.066	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.440	1.440	6.80				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 63 **Autosampler Location: 62**
Sample ID: 248241009|958974|1 **Date Collected: 3/16/2010 11:52:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248241009|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.405	0.405	0.0059	0.0280	0.0063	11:53:18	Yes
2	0.403	0.403	0.0059	0.0275	0.0063	11:53:48	Yes
Mean:	0.404	0.404	0.0059				
SD:	0.002	0.002	0.0000				
%RSD:	0.458	0.458	0.41				

==========

Sequence No.: 64 **Autosampler Location: 63**
Sample ID: 248241010|958974|1 **Date Collected: 3/16/2010 11:54:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 248241010|958974|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202069754|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.343	2.343	0.0309	0.1371	0.0313	12:03:24	Yes
2	2.333	2.333	0.0308	0.1353	0.0312	12:03:53	Yes
Mean:	2.338	2.338	0.0308				
SD:	0.007	0.007	0.0001				
%RSD:	0.289	0.289	0.28				

Sequence No.: 70 **Autosampler Location: 69**
Sample ID: 1202069756|964735|1 **Date Collected: 3/16/2010 12:04:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069756|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.362	2.362	0.0312	0.1376	0.0315	12:05:05	Yes
2	2.330	2.330	0.0307	0.1359	0.0311	12:05:34	Yes
Mean:	2.346	2.346	0.0309				
SD:	0.023	0.023	0.0003				
%RSD:	0.970	0.970	0.95				

Sequence No.: 71 **Autosampler Location: 70**
Sample ID: 1202069755|964735|1 **Date Collected: 3/16/2010 12:05:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069755|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	0.0003	0.0027	0.0007	12:06:46	Yes
2	-0.034	-0.034	0.0002	0.0025	0.0006	12:07:16	Yes
Mean:	-0.033	-0.033	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	5.094	5.094	8.69				

Sequence No.: 72 **Autosampler Location: 71**
Sample ID: 248383002|964735|1 **Date Collected: 3/16/2010 12:07:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 248383002|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0024	0.0121	0.0028	12:08:27	Yes
2	0.130	0.130	0.0024	0.0120	0.0027	12:08:57	Yes
Mean:	0.131	0.131	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.628	0.628	0.45				

Sequence No.: 73 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 12:09:17**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.021	5.021	0.0655	0.2891	0.0659	12:10:07	Yes
2	5.073	5.073	0.0661	0.2890	0.0665	12:10:37	Yes
Mean:	5.047	5.047	0.0658				
SD:	0.037	0.037	0.0005				
%RSD:	0.730	0.730	0.72				

QC value within limits for Hg 253.7 Recovery = 100.94%

All analyte(s) passed QC.

Sequence No.: 74 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 12:10:56**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0001	0.0010	0.0002	12:11:46	Yes
2	-0.064	-0.064	-0.0002	0.0008	0.0002	12:12:16	Yes
Mean:	-0.064	-0.064	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.505	0.505	2.77				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 75 **Autosampler Location: 72**
Sample ID: 248383003|964735|1 **Date Collected: 3/16/2010 12:12:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 248383003|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.236	0.236	0.0037	0.0180	0.0041	12:13:27	Yes
2	0.235	0.235	0.0037	0.0179	0.0041	12:13:57	Yes
Mean:	0.235	0.235	0.0037				
SD:	0.001	0.001	0.0000				
%RSD:	0.483	0.483	0.40				

Sequence No.: 76 **Autosampler Location: 73**
Sample ID: 248383004|964735|1 **Date Collected: 3/16/2010 12:14:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 248383004|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.091	0.091	0.0018	0.0097	0.0022	12:15:09	Yes
2	0.092	0.092	0.0019	0.0096	0.0023	12:15:39	Yes
Mean:	0.091	0.091	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.822	0.822	0.52				

Sequence No.: 77 **Autosampler Location: 74**
Sample ID: 248383005|964735|1 **Date Collected: 3/16/2010 12:16:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 248383005|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.145	0.145	0.0025	0.0126	0.0029	12:16:51	Yes
2	0.146	0.146	0.0026	0.0125	0.0029	12:17:20	Yes
Mean:	0.145	0.145	0.0025				
SD:	0.001	0.001	0.0000				
%RSD:	0.423	0.423	0.31				

Sequence No.: 78 **Autosampler Location: 75**
Sample ID: 248383006|964735|1 **Date Collected: 3/16/2010 12:17:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 248383006|964735|1

Analyst: JXL Data Type: Original

Replicate Data: 248396001|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.255	0.255	0.0040	0.0187	0.0044	12:26:59	Yes
2	0.255	0.255	0.0040	0.0190	0.0044	12:27:29	Yes
Mean:	0.255	0.255	0.0040				
SD:	0.000	0.000	0.0000				
%RSD:	0.036	0.036	0.03				

==========

Sequence No.: 84 Autosampler Location: 81
Sample ID: 248396002|964735|1 Date Collected: 3/16/2010 12:27:49
Analyst: JXL Data Type: Original

Replicate Data: 248396002|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0029	0.0136	0.0033	12:28:40	Yes
2	0.170	0.170	0.0029	0.0144	0.0033	12:29:10	Yes
Mean:	0.170	0.170	0.0029				
SD:	0.000	0.000	0.0000				
%RSD:	0.278	0.278	0.21				

==========

Sequence No.: 85 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/16/2010 12:29:30
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.073	5.073	0.0661	0.2882	0.0665	12:30:20	Yes
2	5.095	5.095	0.0664	0.2881	0.0668	12:30:50	Yes
Mean:	5.084	5.084	0.0663				
SD:	0.016	0.016	0.0002				
%RSD:	0.305	0.305	0.30				

QC value within limits for Hg 253.7 Recovery = 101.68%
All analyte(s) passed QC.

==========

Sequence No.: 86 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/16/2010 12:31:09
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.068	-0.068	-0.0002	0.0004	0.0002	12:31:59	Yes
2	-0.064	-0.064	-0.0002	0.0010	0.0002	12:32:29	Yes
Mean:	-0.066	-0.066	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	3.855	3.855	18.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 87 Autosampler Location: 82
Sample ID: 248396003|964735|1 Date Collected: 3/16/2010 12:32:49
Analyst: JXL Data Type: Original

Replicate Data: 248396003|964735|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.114	0.114	0.0021	0.0112	0.0025	12:33:40	Yes

Sample ID: CCV **Date Collected: 3/16/2010 12:49:44**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.080	5.080	0.0662	0.2875	0.0666	12:50:35	Yes
2	5.056	5.056	0.0659	0.2856	0.0663	12:51:04	Yes
Mean:	5.068	5.068	0.0661				
SD:	0.017	0.017	0.0002				
%RSD:	0.331	0.331	0.33				

QC value within limits for Hg 253.7 Recovery = 101.36%
All analyte(s) passed QC.

Sequence No.: 98 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 12:51:23**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.063	-0.063	-0.0001	0.0010	0.0003	12:52:14	Yes
2	-0.065	-0.065	-0.0002	0.0009	0.0002	12:52:44	Yes
Mean:	-0.064	-0.064	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.783	1.783	9.75				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 99 **Autosampler Location: 92**
Sample ID: 1202069762|964738|1 **Date Collected: 3/16/2010 12:53:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069762|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.308	2.308	0.0305	0.1341	0.0309	12:53:55	Yes
2	2.294	2.294	0.0303	0.1330	0.0307	12:54:25	Yes
Mean:	2.301	2.301	0.0304				
SD:	0.010	0.010	0.0001				
%RSD:	0.445	0.445	0.44				

Sequence No.: 100 **Autosampler Location: 93**
Sample ID: 1202069761|964738|5 **Date Collected: 3/16/2010 12:54:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069761|964738|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0001	0.0024	0.0005	12:55:37	Yes
2	-0.042	-0.042	0.0001	0.0020	0.0005	12:56:07	Yes
Mean:	-0.042	-0.042	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.113	2.113	8.30				

Sequence No.: 101 **Autosampler Location: 94**
Sample ID: 248408002|964738|1 **Date Collected: 3/16/2010 12:56:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248408002|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

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Replicate Data: 248408007|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.314	0.314	0.0047	0.0220	0.0051	13:05:48	Yes
2	0.313	0.313	0.0047	0.0223	0.0051	13:06:18	Yes
Mean:	0.313	0.313	0.0047				
SD:	0.001	0.001	0.0000				
%RSD:	0.278	0.278	0.24				

Sequence No.: 107 **Autosampler Location: 100**
Sample ID: 248408008|964738|1 **Date Collected: 3/16/2010 13:06:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 248408008|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.099	0.099	0.0019	0.0100	0.0023	13:07:30	Yes
2	0.104	0.104	0.0020	0.0102	0.0024	13:08:00	Yes
Mean:	0.101	0.101	0.0020				
SD:	0.004	0.004	0.0000				
%RSD:	3.503	3.503	2.31				

Sequence No.: 108 **Autosampler Location: 101**
Sample ID: 248408009|964738|1 **Date Collected: 3/16/2010 13:08:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 248408009|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.098	0.098	0.0019	0.0101	0.0023	13:09:12	Yes
2	0.097	0.097	0.0019	0.0099	0.0023	13:09:42	Yes
Mean:	0.097	0.097	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	1.083	1.083	0.70				

Sequence No.: 109 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 13:10:03**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.073	5.073	0.0661	0.2828	0.0665	13:10:53	Yes
2	5.058	5.058	0.0659	0.2812	0.0663	13:11:23	Yes
Mean:	5.065	5.065	0.0660				
SD:	0.011	0.011	0.0001				
%RSD:	0.217	0.217	0.21				

QC value within limits for Hg 253.7 Recovery = 101.31%
All analyte(s) passed QC.

Sequence No.: 110 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 13:11:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0002	0.0008	0.0002	13:12:33	Yes
2	-0.064	-0.064	-0.0001	0.0009	0.0002	13:13:03	Yes
Mean:	-0.064	-0.064	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	0.964	0.964	5.23				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.114	1.114	0.0150	0.0663	0.0154	13:21:03	Yes
2	1.111	1.111	0.0150	0.0657	0.0154	13:21:33	Yes
Mean:	1.113	1.113	0.0150				
SD:	0.002	0.002	0.0000				
%RSD:	0.184	0.184	0.18				

==========

Sequence No.: 116 **Autosampler Location: 107**
Sample ID: 248408015|964738|1 **Date Collected: 3/16/2010 13:21:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 248408015|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.233	0.233	0.0037	0.0174	0.0041	13:22:45	Yes
2	0.229	0.229	0.0036	0.0174	0.0040	13:23:15	Yes
Mean:	0.231	0.231	0.0037				
SD:	0.003	0.003	0.0000				
%RSD:	1.246	1.246	1.02				

==========

Sequence No.: 117 **Autosampler Location: 108**
Sample ID: 248408016|964738|1 **Date Collected: 3/16/2010 13:23:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 248408016|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.095	0.095	0.0019	0.0096	0.0023	13:24:27	Yes
2	0.095	0.095	0.0019	0.0097	0.0023	13:24:57	Yes
Mean:	0.095	0.095	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.155	0.155	0.10				

==========

Sequence No.: 118 **Autosampler Location: 109**
Sample ID: 248408017|964738|1 **Date Collected: 3/16/2010 13:25:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 248408017|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0029	0.0139	0.0032	13:26:10	Yes
2	0.174	0.174	0.0029	0.0146	0.0033	13:26:40	Yes
Mean:	0.171	0.171	0.0029				
SD:	0.004	0.004	0.0000				
%RSD:	2.082	2.082	1.60				

==========

Sequence No.: 119 **Autosampler Location: 110**
Sample ID: 248408018|964738|1 **Date Collected: 3/16/2010 13:27:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 248408018|964738|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0007	0.0043	0.0011	13:27:52	Yes
2	-0.001	-0.001	0.0007	0.0044	0.0011	13:28:22	Yes
Mean:	0.000	0.000	0.0007				
SD:	0.002	0.002	0.0000				
%RSD:	495.5	495.5	2.88				

==========

Sequence No.: 120 **Autosampler Location: 111**
Sample ID: 1202069763|964741|1 **Date Collected: 3/16/2010 13:28:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069763|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.072	-0.072	-0.0003	0.0000	0.0001	13:29:35	Yes
2	-0.073	-0.073	-0.0003	0.0002	0.0001	13:30:05	Yes
Mean:	-0.072	-0.072	-0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	0.685	0.685	2.45				

==========

Sequence No.: 121 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 13:30:26**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.134	5.134	0.0669	0.2907	0.0673	13:31:16	Yes
2	5.130	5.130	0.0669	0.2890	0.0673	13:31:46	Yes
Mean:	5.132	5.132	0.0669				
SD:	0.003	0.003	0.0000				
%RSD:	0.054	0.054	0.05				

QC value within limits for Hg 253.7 Recovery = 102.65%
All analyte(s) passed QC.

==========

Sequence No.: 122 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 13:32:05**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.067	-0.067	-0.0002	0.0003	0.0002	13:32:56	Yes
2	-0.065	-0.065	-0.0002	0.0008	0.0002	13:33:26	Yes
Mean:	-0.066	-0.066	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.726	1.726	8.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 123 **Autosampler Location: 112**
Sample ID: 1202069764|964741|10 **Date Collected: 3/16/2010 13:33:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069764|964741|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.735	3.735	0.0489	0.2124	0.0493	13:34:37	Yes
2	3.739	3.739	0.0489	0.2122	0.0493	13:35:07	Yes
Mean:	3.737	3.737	0.0489				
SD:	0.003	0.003	0.0000				
%RSD:	0.075	0.075	0.07				

==========

Sequence No.: 124 **Autosampler Location: 113**
Sample ID: 248418001|964741|1 **Date Collected: 3/16/2010 13:35:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418001|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0037	0.0177	0.0041	13:36:19	Yes
2	0.229	0.229	0.0036	0.0173	0.0040	13:36:49	Yes

Mean:	0.232	0.232	0.0037
SD:	0.005	0.005	0.0001
%RSD:	1.990	1.990	1.62

==========

Sequence No.: 125 **Autosampler Location: 114**
Sample ID: 1202069765|964741|1 **Date Collected: 3/16/2010 13:37:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069765|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.255	0.255	0.0040	0.0190	0.0044	13:38:02	Yes
2	0.256	0.256	0.0040	0.0190	0.0044	13:38:32	Yes
Mean:	0.256	0.256	0.0040				
SD:	0.000	0.000	0.0000				
%RSD:	0.073	0.073	0.06				

==========

Sequence No.: 126 **Autosampler Location: 115**
Sample ID: 1202069766|964741|1 **Date Collected: 3/16/2010 13:38:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069766|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.501	2.501	0.0329	0.1453	0.0333	13:39:45	Yes
2	2.514	2.514	0.0331	0.1448	0.0335	13:40:14	Yes
Mean:	2.508	2.508	0.0330				
SD:	0.009	0.009	0.0001				
%RSD:	0.368	0.368	0.36				

==========

Sequence No.: 127 **Autosampler Location: 116**
Sample ID: 1202069768|964741|1 **Date Collected: 3/16/2010 13:40:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069768|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.538	2.538	0.0334	0.1459	0.0338	13:41:27	Yes
2	2.510	2.510	0.0331	0.1451	0.0335	13:41:57	Yes
Mean:	2.524	2.524	0.0332				
SD:	0.019	0.019	0.0002				
%RSD:	0.765	0.765	0.75				

==========

Sequence No.: 128 **Autosampler Location: 117**
Sample ID: 1202069767|964741|5 **Date Collected: 3/16/2010 13:42:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069767|964741|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0005	0.0035	0.0009	13:43:10	Yes
2	-0.011	-0.011	0.0005	0.0031	0.0009	13:43:39	Yes
Mean:	-0.010	-0.010	0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	10.94	10.94	2.75				

==========

Sequence No.: 129 **Autosampler Location: 118**
Sample ID: 248418002|964741|1 **Date Collected: 3/16/2010 13:44:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418002|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.211	0.211	0.0034	0.0162	0.0038	13:44:52	Yes
2	0.207	0.207	0.0033	0.0158	0.0037	13:45:22	Yes
Mean:	0.209	0.209	0.0034				
SD:	0.003	0.003	0.0000				
%RSD:	1.586	1.586	1.27				

==========

Sequence No.: 130 **Autosampler Location: 119**
Sample ID: 248418003|964741|1 **Date Collected: 3/16/2010 13:45:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418003|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.526	0.526	0.0075	0.0336	0.0079	13:46:35	Yes
2	0.519	0.519	0.0074	0.0331	0.0078	13:47:05	Yes
Mean:	0.523	0.523	0.0074				
SD:	0.005	0.005	0.0001				
%RSD:	0.950	0.950	0.86				

==========

Sequence No.: 131 **Autosampler Location: 120**
Sample ID: 248418004|964741|1 **Date Collected: 3/16/2010 13:47:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418004|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.272	0.272	0.0042	0.0195	0.0046	13:48:18	Yes
2	0.270	0.270	0.0042	0.0191	0.0045	13:48:48	Yes
Mean:	0.271	0.271	0.0042				
SD:	0.002	0.002	0.0000				
%RSD:	0.569	0.569	0.48				

==========

Sequence No.: 132 **Autosampler Location: 121**
Sample ID: 248418005|964741|1 **Date Collected: 3/16/2010 13:49:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418005|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.043	0.043	0.0012	0.0069	0.0016	13:50:01	Yes
2	0.042	0.042	0.0012	0.0069	0.0016	13:50:30	Yes
Mean:	0.043	0.043	0.0012				
SD:	0.001	0.001	0.0000				
%RSD:	1.362	1.362	0.61				

==========

Sequence No.: 133 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 13:50:51**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.384	5.384	0.0701	0.3036	0.0705	13:51:42	Yes
2	5.286	5.286	0.0689	0.3003	0.0693	13:52:12	Yes
Mean:	5.335	5.335	0.0695				
SD:	0.069	0.069	0.0009				
%RSD:	1.299	1.299	1.29				

QC value within limits for Hg 253.7 Recovery = 106.70%
All analyte(s) passed QC.

==========

Sequence No.: 134 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 13:52:31**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.068	-0.068	-0.0002	0.0005	0.0002	13:53:22	Yes
2	-0.068	-0.068	-0.0002	0.0005	0.0002	13:53:52	Yes
Mean:	-0.068	-0.068	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.623	0.623	2.67				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 135 **Autosampler Location: 122**
Sample ID: 248418006|964741|1 **Date Collected: 3/16/2010 13:54:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418006|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.174	0.174	0.0029	0.0144	0.0033	13:55:03	Yes
2	0.173	0.173	0.0029	0.0141	0.0033	13:55:33	Yes
Mean:	0.174	0.174	0.0029				
SD:	0.001	0.001	0.0000				
%RSD:	0.426	0.426	0.33				

==========

Sequence No.: 136 **Autosampler Location: 123**
Sample ID: 248418007|964741|1 **Date Collected: 3/16/2010 13:55:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418007|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.237	0.237	0.0037	0.0179	0.0041	13:56:46	Yes
2	0.238	0.238	0.0037	0.0175	0.0041	13:57:16	Yes
Mean:	0.237	0.237	0.0037				
SD:	0.001	0.001	0.0000				
%RSD:	0.315	0.315	0.26				

==========

Sequence No.: 137 **Autosampler Location: 124**
Sample ID: 248418008|964741|1 **Date Collected: 3/16/2010 13:57:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418008|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.261	0.261	0.0040	0.0191	0.0044	13:58:29	Yes
2	0.264	0.264	0.0041	0.0190	0.0045	13:58:59	Yes
Mean:	0.262	0.262	0.0041				
SD:	0.002	0.002	0.0000				
%RSD:	0.599	0.599	0.50				

==========

Sequence No.: 138 **Autosampler Location: 125**
Sample ID: 248418009|964741|1 **Date Collected: 3/16/2010 13:59:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 248418009|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.200	0.200	0.0033	0.0159	0.0036	14:00:11	Yes

2	0.199	0.199	0.0032	0.0154	0.0036	14:00:41	Yes
Mean:	0.200	0.200	0.0032				
SD:	0.001	0.001	0.0000				
%RSD:	0.371	0.371	0.29				

==========

Sequence No.: 139 **Autosampler Location: 126**
Sample ID: 248515001|964741|1 **Date Collected: 3/16/2010 14:01:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 248515001|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.221	0.221	0.0035	0.0168	0.0039	14:01:54	Yes
2	0.218	0.218	0.0035	0.0165	0.0039	14:02:24	Yes
Mean:	0.220	0.220	0.0035				
SD:	0.002	0.002	0.0000				
%RSD:	0.851	0.851	0.69				

==========

Sequence No.: 140 **Autosampler Location: 127**
Sample ID: 248515002|964741|1 **Date Collected: 3/16/2010 14:02:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 248515002|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.691	1.691	0.0225	0.0999	0.0229	14:03:37	Yes
2	1.703	1.703	0.0226	0.1000	0.0230	14:04:07	Yes
Mean:	1.697	1.697	0.0226				
SD:	0.008	0.008	0.0001				
%RSD:	0.489	0.489	0.47				

==========

Sequence No.: 141 **Autosampler Location: 128**
Sample ID: 248515003|964741|1 **Date Collected: 3/16/2010 14:04:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248515003|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.501	0.501	0.0071	0.0328	0.0075	14:05:20	Yes
2	0.495	0.495	0.0071	0.0325	0.0075	14:05:50	Yes
Mean:	0.498	0.498	0.0071				
SD:	0.004	0.004	0.0000				
%RSD:	0.745	0.745	0.67				

==========

Sequence No.: 142 **Autosampler Location: 129**
Sample ID: 248517001|964741|1 **Date Collected: 3/16/2010 14:06:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 248517001|964741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.791	0.791	0.0109	0.0489	0.0113	14:07:02	Yes
2	0.785	0.785	0.0108	0.0481	0.0112	14:07:32	Yes
Mean:	0.788	0.788	0.0108				
SD:	0.004	0.004	0.0001				
%RSD:	0.497	0.497	0.47				

==========

Sequence No.: 143 **Autosampler Location: 130**
Sample ID: 1202068545|964199|1 **Date Collected: 3/16/2010 14:07:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068545|964199|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.067	-0.067	-0.0002	0.0009	0.0002	14:08:46	Yes
2	-0.067	-0.067	-0.0002	0.0011	0.0002	14:09:16	Yes
Mean:	-0.067	-0.067	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.138	0.138	0.63				

==========

Sequence No.: 144 **Autosampler Location: 131**
Sample ID: 1202068546|964199|1 **Date Collected: 3/16/2010 14:09:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068546|964199|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.199	2.199	0.0290	0.1259	0.0294	14:10:28	Yes
2	2.186	2.186	0.0289	0.1250	0.0293	14:10:58	Yes
Mean:	2.192	2.192	0.0290				
SD:	0.009	0.009	0.0001				
%RSD:	0.415	0.415	0.41				

==========

Sequence No.: 145 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 14:11:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.339	5.339	0.0696	0.2975	0.0700	14:12:09	Yes
2	5.330	5.330	0.0694	0.2968	0.0698	14:12:39	Yes
Mean:	5.334	5.334	0.0695				
SD:	0.007	0.007	0.0001				
%RSD:	0.127	0.127	0.13				

QC value within limits for Hg 253.7 Recovery = 106.69%
All analyte(s) passed QC.

==========

Sequence No.: 146 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 14:12:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0002	0.0003	0.0002	14:13:49	Yes
2	-0.067	-0.067	-0.0002	0.0007	0.0002	14:14:19	Yes
Mean:	-0.069	-0.069	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	3.462	3.462	14.53				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 147 **Autosampler Location: 132**
Sample ID: 249065015|964199|1 **Date Collected: 3/16/2010 14:14:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 249065015|964199|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.202	0.202	0.0033	0.0161	0.0037	14:15:30	Yes
2	0.196	0.196	0.0032	0.0152	0.0036	14:16:00	Yes
Mean:	0.199	0.199	0.0032				
SD:	0.004	0.004	0.0000				

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 962563.0 **Verified by:** _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202065014 MB	16-MAR-2010 08:30:00	0.502	50	99.60159	
1202065015 LCS	16-MAR-2010 08:30:00	0.515	50	97.08738	
248515001	16-MAR-2010 08:30:00	0.525	50	95.2381	
248515002	16-MAR-2010 08:30:00	0.518	50	96.5251	
248515003	16-MAR-2010 08:30:00	0.52	50	96.15385	
248517001	16-MAR-2010 08:30:00	0.519	50	96.33911	
248520001	16-MAR-2010 08:30:00	0.52	50	96.15385	
248520002	16-MAR-2010 08:30:00	0.517	50	96.7118	
248520003	16-MAR-2010 08:30:00	0.501	50	99.8004	
248520004	16-MAR-2010 08:30:00	0.514	50	97.27626	
248520005	16-MAR-2010 08:30:00	0.512	50	97.65625	
248520006	16-MAR-2010 08:30:00	0.583	50	85.76329	
248520007	16-MAR-2010 08:30:00	0.528	50	94.69697	
248520008	16-MAR-2010 08:30:00	0.541	50	92.42144	
248520009	16-MAR-2010 08:30:00	0.506	50	98.81423	
248520010	16-MAR-2010 08:30:00	0.537	50	93.10987	
248520011	16-MAR-2010 08:30:00	0.534	50	93.63296	
248526001	16-MAR-2010 08:30:00	0.503	50	99.40358	
1202065016 DUP (248526001)	16-MAR-2010 08:30:00	0.533	50	93.80863	
1202065017 MS (248526001)	16-MAR-2010 08:30:00	0.509	50	98.23183	
1202065024 MSD (248526001)	16-MAR-2010 08:30:00	0.557	50	89.76661	
1202065018 SDILT (248526001)	16-MAR-2010 08:30:00	0.503	50	99.40358	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202065015	Metals Soil LCS SRM ICPMS	UI062540-MS	.515	g
MS	1202065017	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202065017	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202065024	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202065024	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248526001 consist of brown, medium soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **962573.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.517	g
MS	1202065048	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202065048	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202065050	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202065050	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202065045 MB	16-MAR-2010 09:30:00	Soil	0.509	50	98.23183	
1202065046 LCS	16-MAR-2010 09:30:00	Soil	0.517	50	96.7118	
248515001	16-MAR-2010 09:30:00	Soil	0.542	50	92.25092	
248515002	16-MAR-2010 09:30:00	Soil	0.513	50	97.46589	
248515003	16-MAR-2010 09:30:00	Soil	0.5	50	100	
248517001	16-MAR-2010 09:30:00	Soil	0.537	50	93.10987	
248520001	16-MAR-2010 09:30:00	Soil	0.503	50	99.40358	
248520002	16-MAR-2010 09:30:00	Soil	0.538	50	92.9368	
248520003	16-MAR-2010 09:30:00	Soil	0.55	50	90.90909	
248520004	16-MAR-2010 09:30:00	Soil	0.515	50	97.08738	
248520005	16-MAR-2010 09:30:00	Soil	0.509	50	98.23183	
248520006	16-MAR-2010 09:30:00	Soil	0.583	50	85.76329	
248520007	16-MAR-2010 09:30:00	Soil	0.534	50	93.63296	
248520008	16-MAR-2010 09:30:00	Soil	0.533	50	93.80863	
248520009	16-MAR-2010 09:30:00	Soil	0.544	50	91.91176	
248520010	16-MAR-2010 09:30:00	Soil	0.561	50	89.12656	
248520011	16-MAR-2010 09:30:00	Soil	0.516	50	96.89922	
248526001	16-MAR-2010 09:30:00	Soil	0.527	50	94.87666	
1202065047 DUP (248526001)	16-MAR-2010 09:30:00	Soil	0.528	50	94.69697	
1202065048 MS (248526001)	16-MAR-2010 09:30:00	Soil	0.535	50	93.45794	
1202065050 MSD (248526001)	16-MAR-2010 09:30:00	Soil	0.513	50	97.46589	
1202065049 SDILT (248526001)	16-MAR-2010 09:30:00	Soil	0.527	50	94.87666	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **962573.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.517	g
MS	1202065048	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202065048	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202065050	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202065050	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1282564	HYDROCHLORIC ACID	10 mL				
1282566	Nitric Acid CONC.	1.25 mL				

Comments:

Sample 248526001 consist of brown, medium soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **964740.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202069764	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202069766	Mercury soil working intermediate standard for MS	WHG100315-14	.3	mL
MSD	1202069768	Mercury soil working intermediate standard for MS	WHG100315-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202069763 MB	15-MAR-2010 18:00:00	Soil	0.529	30	56.71078	
1202069764 LCS	15-MAR-2010 18:00:00	Soil	0.206	30	145.63107	
248418001	15-MAR-2010 18:00:00	Soil	0.549	30	54.64481	
1202069765 DUP (248418001)	15-MAR-2010 18:00:00	Soil	0.565	30	53.09735	
1202069766 MS (248418001)	15-MAR-2010 18:00:00	Soil	0.513	30	58.47953	
1202069768 MSD (248418001)	15-MAR-2010 18:00:00	Soil	0.547	30	54.84461	
1202069767 SDILT (248418001)	15-MAR-2010 18:00:00	Soil	0.549	30	54.64481	
248418002	15-MAR-2010 18:00:00	Soil	0.563	30	53.28597	
248418003	15-MAR-2010 18:00:00	Soil	0.543	30	55.24862	
248418004	15-MAR-2010 18:00:00	Soil	0.52	30	57.69231	
248418005	15-MAR-2010 18:00:00	Soil	0.508	30	59.05512	
248418006	15-MAR-2010 18:00:00	Soil	0.531	30	56.49718	
248418007	15-MAR-2010 18:00:00	Soil	0.506	30	59.28854	
248418008	15-MAR-2010 18:00:00	Soil	0.519	30	57.80347	
248418009	15-MAR-2010 18:00:00	Soil	0.561	30	53.47594	
248515001	15-MAR-2010 18:00:00	Soil	0.534	30	56.17978	
248515002	15-MAR-2010 18:00:00	Soil	0.5	30	60	
248515003	15-MAR-2010 18:00:00	Soil	0.521	30	57.58157	
248517001	15-MAR-2010 18:00:00	Soil	0.535	30	56.07477	

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100315-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL

Comments:

Sample 248418001 is a brown dry rocky soil.

Digestion Start Date: 15-MAR-10 18:00

Digestion End Date: 15-MAR-10 18:30

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
962575	See Below		

Potentially affected work order(s)(SDG): 248515(10-2197),248517(10-2198),248520(10-2200),248526(10-2202)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

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: QC 1202065048MS 2. Failed RPD for DUP: QC 1202065047DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202065050MSD 4. Failed Recovery for LCS/LCSD: QC 1202065046LCS 5. Failed Recovery for MSD/PSD: QC 1202065050MSD	1. The matrix spike recovery failed outside of the control limits for barium,calcium,lead,magnesium,manganese,potassium,sodium and zinc 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. 2. The sample and sample duplicate % RPD failed outside the control limits for calcium and chromium 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. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for aluminum,barium,calcium,chromium,iron,lead, magnesium,manganese,potassium and zinc due to possible matrix interferences 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. 4. 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. 5. The matrix spike duplicate recovery failed outside of the control limits for manganese and potassium 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:
Helen Camello 09-APR-10

Data Validator/Group Leader:
Louise Smith 13-APR-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:** 12-JUN-10
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:** 12-JAN-10
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: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

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: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-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: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-AUG-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: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-AUG-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

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
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: 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

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

Standard Logbook

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

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: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
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: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
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		

Standard Logbook

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
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
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
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: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 18-MAR-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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
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

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
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

Standard Logbook

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
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: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
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: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-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

Analyte	Concentration	Analyte	Concentration
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: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-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
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
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

Standard Logbook

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
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: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
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: IHG100315-01 **Opened:** 15-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 15-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 16-MAR-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

Serial ID: IHG100315-02 **Opened:** 15-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 16-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Standard Logbook

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: WHG100315-07 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-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.
IHG100315-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100315-08 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-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.
IHG100315-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100315-09 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-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.
IHG100315-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100315-10 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100315-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100315-11 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-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.
IHG100315-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100315-12 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-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.
IHG100315-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100315-14 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-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: WI100330-42 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100330-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100330-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100330-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100330-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100330-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100330-43 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100330-44 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100330-45 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
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

Standard Logbook

Serial ID: WI100330-46 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
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
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

Standard Logbook

Serial ID: WI100330-47 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL &1%HNO3-1293083
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
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: WMS100413-04 **Opened:** 13-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 14-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100413-04A **Opened:** 13-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 13-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100413-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100413-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100413-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100413-05 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100413-06 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WMS100413-07 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100413-08 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

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

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: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
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

Standard Logbook

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-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: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1300209 **Opened:** 12-APR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 12-APR-10
Type: Reagent/Solvent **Expires:** 19-APR-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.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198-1

Sample Analysis

Sample ID	**Client ID**
248518001	RE36-10-8294
1202065055	Method Blank (MB) **ICP**
1202065056	Laboratory Control Sample (LCS)
1202065059	248550001(RE32-10-11362L) Serial Dilution (SD)
1202065057	248550001(RE32-10-11362D) Sample Duplicate (DUP)
1202065058	248550001(RE32-10-11362S) Matrix Spike (MS)
1202065070	Method Blank (MB) **ICP-MS**
1202065071	Laboratory Control Sample (LCS)
1202065074	248550001(RE32-10-11362L) Serial Dilution (SD)
1202065072	248550001(RE32-10-11362D) Sample Duplicate (DUP)
1202065073	248550001(RE32-10-11362S) Matrix Spike (MS)
1202068540	Method Blank (MB) **CVAA**
1202068541	Laboratory Control Sample (LCS)
1202068544	248551001(RE46-10-11978L) Serial Dilution (SD)
1202068542	248551001(RE46-10-11978D) Sample Duplicate (DUP)
1202068543	248551001(RE46-10-11978S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch: 962580, 962585 and 964196

Prep Batch :	962579, 962584 and 964195
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 7300 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 standards met the 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 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: 248550001 (RE32-10-11362) and 248551001 (RE46-10-11978).

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. All applicable elements met the acceptance criteria.

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 (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.

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:** 4/15/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2198-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248518001 **BASIS:** As Received **DATE COLLECTED** 25-FEB-10

CLIENT ID: RE36-10-8294 **LEVEL:** Low **DATE RECEIVED** 03-MAR-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	03/30/10 17:51	033010B-1	962580
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 09:38	100412-7	962585
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/30/10 17:51	033010B-1	962580
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/30/10 17:51	033010B-1	962580
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	04/12/10 21:49	100412-2	962585
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/30/10 17:51	033010B-1	962580
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	PRB	04/12/10 21:49	100412-2	962585
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 08:14	031310W1-8	964196
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-09-7	Potassium	241	ug/L		50	150	150	1	P	HSC	03/30/10 17:51	033010B-1	962580
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-23-5	Sodium	238	ug/L	J	100	300	300	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/12/10 21:49	100412-2	962585
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/30/10 17:51	033010B-1	962580
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/30/10 17:51	033010B-1	962580

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962580	962579	SW846 3005A	50	mL	50	mL	03/15/10	BCD1
962585	962584	SW846 3005A	50	mL	50	mL	03/15/10	BCD1
964196	964195	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 – 110.0	AV	13–MAR–10 07:19	031310W1–8
	Aluminum	5280	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Barium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Chromium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Cobalt	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Copper	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Iron	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Magnesium	5450	ug/L	5000	ug/L	109	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Nickel	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Potassium	2600	ug/L	2500	ug/L	104.1	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Selenium	2560	ug/L	2500	ug/L	102.4	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Silver	267	ug/L	250	ug/L	106.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Sodium	2600	ug/L	2500	ug/L	104	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Vanadium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Zinc	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	30–MAR–10 15:16	033010B–1
	Beryllium	54.7	ug/L	50	ug/L	109.4	90.0 – 110.0	MS	12–APR–10 20:58	100412–2
	Cadmium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	12–APR–10 20:58	100412–2
	Lead	54.9	ug/L	50	ug/L	109.8	90.0 – 110.0	MS	12–APR–10 20:58	100412–2
	Manganese	55.2	ug/L	50	ug/L	110.4	90.0 – 110.0	MS	12–APR–10 20:58	100412–2
	Thallium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	12–APR–10 20:58	100412–2
	Uranium	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	12–APR–10 20:58	100412–2
	Antimony	54.7	ug/L	50	ug/L	109.3	90.0 – 110.0	MS	13–APR–10 09:12	100412–7
CCV01										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	13–MAR–10 07:24	031310W1–8
	Aluminum	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Arsenic	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Barium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30–MAR–10 15:38	033010B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2198-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Cobalt	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Copper	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Nickel	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Selenium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Silver	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Zinc	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	30-MAR-10 15:38	033010B-1
	Beryllium	52.2	ug/L	50	ug/L	104.3	90.0 - 110.0	MS	12-APR-10 21:21	100412-2
	Cadmium	51.2	ug/L	50	ug/L	102.3	90.0 - 110.0	MS	12-APR-10 21:21	100412-2
	Lead	51.4	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	12-APR-10 21:21	100412-2
	Manganese	53.1	ug/L	50	ug/L	106.3	90.0 - 110.0	MS	12-APR-10 21:21	100412-2
	Thallium	49.8	ug/L	50	ug/L	99.5	90.0 - 110.0	MS	12-APR-10 21:21	100412-2
	Uranium	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	12-APR-10 21:21	100412-2
	Antimony	53	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	13-APR-10 09:24	100412-7
CCV02										
	Mercury	4.97	ug/L	5	ug/L	99.4	80.0 - 120.0	AV	13-MAR-10 07:47	031310W1-8
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Arsenic	512	ug/L	500	ug/L	102.5	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Calcium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Chromium	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Copper	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Magnesium	5250	ug/L	5000	ug/L	105.1	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2198-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	510	ug/L	500	ug/L	102.1	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Selenium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Vanadium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Zinc	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	30-MAR-10 15:54	033010B-1
	Beryllium	49.5	ug/L	50	ug/L	99	90.0 - 110.0	MS	12-APR-10 21:58	100412-2
	Cadmium	51.1	ug/L	50	ug/L	102.1	90.0 - 110.0	MS	12-APR-10 21:58	100412-2
	Lead	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	12-APR-10 21:58	100412-2
	Manganese	51.1	ug/L	50	ug/L	102.1	90.0 - 110.0	MS	12-APR-10 21:58	100412-2
	Thallium	47.4	ug/L	50	ug/L	94.9	90.0 - 110.0	MS	12-APR-10 21:58	100412-2
	Uranium	50.2	ug/L	50	ug/L	100.4	90.0 - 110.0	MS	12-APR-10 21:58	100412-2
	Antimony	53.1	ug/L	50	ug/L	106.2	90.0 - 110.0	MS	13-APR-10 09:42	100412-7
CCV03										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 - 120.0	AV	13-MAR-10 08:11	031310W1-8
	Aluminum	5160	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Arsenic	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Chromium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Copper	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Nickel	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Selenium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Silver	510	ug/L	500	ug/L	102	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 16:14	033010B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 16:14	033010B–1
	Beryllium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	12–APR–10 22:30	100412–2
	Cadmium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	12–APR–10 22:30	100412–2
	Lead	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	12–APR–10 22:30	100412–2
	Manganese	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	12–APR–10 22:30	100412–2
	Thallium	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	12–APR–10 22:30	100412–2
	Uranium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	12–APR–10 22:30	100412–2
	Antimony	54	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	13–APR–10 09:58	100412–7
CCV04										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	13–MAR–10 08:34	031310W1–8
	Aluminum	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Arsenic	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Nickel	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Selenium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–MAR–10 16:33	033010B–1
CCV05										
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1
	Arsenic	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	30–MAR–10 16:57	033010B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2198-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Copper	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Nickel	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Potassium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Selenium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Silver	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	30-MAR-10 16:57	033010B-1
CCV06										
	Aluminum	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Arsenic	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Chromium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Copper	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Nickel	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Selenium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	30-MAR-10 17:18	033010B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2198-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	30-MAR-10 17:18	033010B-1
CCV07										
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Arsenic	513	ug/L	500	ug/L	102.7	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Barium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Chromium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Copper	505	ug/L	500	ug/L	101	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Nickel	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Selenium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Silver	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
	Zinc	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	30-MAR-10 17:40	033010B-1
CCV08										
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Arsenic	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Chromium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Magnesium	5160	ug/L	5000	ug/L	103.3	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Nickel	505	ug/L	500	ug/L	101	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2198-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1
	Zinc	500	ug/L	500	ug/L	100	90.0 - 110.0	P	30-MAR-10 18:00	033010B-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.199	ug/L	.2	ug/L	99.5	70.0 – 130.0	AV	13–MAR–10 07:23	031310W1–8
	Lead	2.45	ug/L	2	ug/L	122.5	70.0 – 130.0	MS	12–APR–10 21:07	100412–2
	Manganese	6.44	ug/L	5	ug/L	128.9	70.0 – 130.0	MS	12–APR–10 21:07	100412–2
	Beryllium	.557	ug/L	.5	ug/L	111.4	70.0 – 130.0	MS	12–APR–10 21:07	100412–2
	Uranium	.266	ug/L	.2	ug/L	133	70.0 – 130.0	MS	12–APR–10 21:07	100412–2
	Cadmium	1.23	ug/L	1	ug/L	123.2	70.0 – 130.0	MS	12–APR–10 21:07	100412–2
	Thallium	1.26	ug/L	1	ug/L	125.6	70.0 – 130.0	MS	12–APR–10 21:07	100412–2
	Antimony	3.06	ug/L	3	ug/L	101.9	70.0 – 130.0	MS	13–APR–10 09:17	100412–7
PQL01										
	Aluminum	218	ug/L	200	ug/L	108.8	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Iron	103	ug/L	100	ug/L	102.5	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Magnesium	315	ug/L	300	ug/L	104.9	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Nickel	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Potassium	189	ug/L	150	ug/L	126.2	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Silver	6.06	ug/L	5	ug/L	121.1	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Sodium	294	ug/L	300	ug/L	98.1	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Arsenic	31.6	ug/L	30	ug/L	105.3	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Barium	5.22	ug/L	5	ug/L	104.5	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Chromium	4.93	ug/L	5	ug/L	98.6	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Cobalt	5.18	ug/L	5	ug/L	103.7	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Copper	10.4	ug/L	10	ug/L	104.4	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Vanadium	5.56	ug/L	5	ug/L	111.3	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Zinc	10.2	ug/L	10	ug/L	101.8	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Calcium	201	ug/L	200	ug/L	100.8	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1
	Selenium	31.9	ug/L	30	ug/L	106.3	70.0 – 130.0	P	30–MAR–10 15:21	033010B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198–1

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	13–MAR–10 07:21	031310W1–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–MAR–10 15:18	033010B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–MAR–10 15:18	033010B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–MAR–10 15:18	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–MAR–10 15:18	033010B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Potassium	57.06	+/–150	J	50.0	150	LIQ	P	30–MAR–10 15:18	033010B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–MAR–10 15:18	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–MAR–10 15:18	033010B–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	12–APR–10 21:03	100412–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	12–APR–10 21:03	100412–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–APR–10 21:03	100412–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–APR–10 21:03	100412–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	12–APR–10 21:03	100412–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	12–APR–10 21:03	100412–2
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	13–APR–10 09:15	100412–7
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 07:26	031310W1–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–MAR–10 15:40	033010B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 15:40	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:40	033010B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–MAR–10 15:40	033010B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:40	033010B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2198-1

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	30-MAR-10 15:40	033010B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	30-MAR-10 15:40	033010B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-MAR-10 15:40	033010B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-MAR-10 15:40	033010B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	30-MAR-10 15:40	033010B-1
	Potassium	103.4	+/-150	J	50.0	150	LIQ	P	30-MAR-10 15:40	033010B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 15:40	033010B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 15:40	033010B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	30-MAR-10 15:40	033010B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 15:40	033010B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	30-MAR-10 15:40	033010B-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	12-APR-10 21:26	100412-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 21:26	100412-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 21:26	100412-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 21:26	100412-2
	Thallium	0.31	+/-1	J	0.3	1.0	LIQ	MS	12-APR-10 21:26	100412-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	12-APR-10 21:26	100412-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 09:26	100412-7
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	13-MAR-10 07:49	031310W1-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	30-MAR-10 15:56	033010B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 15:56	033010B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 15:56	033010B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	30-MAR-10 15:56	033010B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 15:56	033010B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 15:56	033010B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	30-MAR-10 15:56	033010B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-MAR-10 15:56	033010B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-MAR-10 15:56	033010B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	30-MAR-10 15:56	033010B-1
	Potassium	68.02	+/-150	J	50.0	150	LIQ	P	30-MAR-10 15:56	033010B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198–1

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	30–MAR–10 15:56	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:56	033010B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–MAR–10 15:56	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 15:56	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–MAR–10 15:56	033010B–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	12–APR–10 22:02	100412–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	12–APR–10 22:02	100412–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–APR–10 22:02	100412–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–APR–10 22:02	100412–2
	Thallium	0.634	+/–1	J	0.3	1.0	LIQ	MS	12–APR–10 22:02	100412–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	12–APR–10 22:02	100412–2
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	13–APR–10 09:45	100412–7
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:12	031310W1–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–MAR–10 16:16	033010B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–MAR–10 16:16	033010B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–MAR–10 16:16	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–MAR–10 16:16	033010B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Potassium	96.01	+/–150	J	50.0	150	LIQ	P	30–MAR–10 16:16	033010B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–MAR–10 16:16	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–MAR–10 16:16	033010B–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	12–APR–10 22:35	100412–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2198–1

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	12–APR–10 22:35	100412–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–APR–10 22:35	100412–2
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–APR–10 22:35	100412–2
	Thallium	0.837	+/–1	J	0.3	1.0	LIQ	MS	12–APR–10 22:35	100412–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	12–APR–10 22:35	100412–2
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	13–APR–10 10:01	100412–7
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:36	031310W1–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–MAR–10 16:35	033010B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–MAR–10 16:35	033010B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–MAR–10 16:35	033010B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–MAR–10 16:35	033010B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Potassium	67.52	+/–150	J	50.0	150	LIQ	P	30–MAR–10 16:35	033010B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–MAR–10 16:35	033010B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:35	033010B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–MAR–10 16:35	033010B–1
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–MAR–10 16:59	033010B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	30–MAR–10 16:59	033010B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:59	033010B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–MAR–10 16:59	033010B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:59	033010B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–MAR–10 16:59	033010B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2198-1

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	LIQ	P	30-MAR-10 16:59	033010B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-MAR-10 16:59	033010B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-MAR-10 16:59	033010B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	30-MAR-10 16:59	033010B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	30-MAR-10 16:59	033010B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 16:59	033010B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 16:59	033010B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	30-MAR-10 16:59	033010B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 16:59	033010B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	30-MAR-10 16:59	033010B-1
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	30-MAR-10 17:21	033010B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	30-MAR-10 17:21	033010B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-MAR-10 17:21	033010B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-MAR-10 17:21	033010B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Potassium	64.34	+/-150	J	50.0	150	LIQ	P	30-MAR-10 17:21	033010B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	30-MAR-10 17:21	033010B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:21	033010B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	30-MAR-10 17:21	033010B-1
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	30-MAR-10 17:42	033010B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:42	033010B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2198-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	30-MAR-10 17:42	033010B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-MAR-10 17:42	033010B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-MAR-10 17:42	033010B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Potassium	52.7	+/-150	J	50.0	150	LIQ	P	30-MAR-10 17:42	033010B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	30-MAR-10 17:42	033010B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 17:42	033010B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	30-MAR-10 17:42	033010B-1
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	30-MAR-10 18:02	033010B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	30-MAR-10 18:02	033010B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-MAR-10 18:02	033010B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-MAR-10 18:02	033010B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Potassium	51.03	+/-150	J	50.0	150	LIQ	P	30-MAR-10 18:02	033010B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	30-MAR-10 18:02	033010B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-MAR-10 18:02	033010B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	30-MAR-10 18:02	033010B-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2198–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202065055								
	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
1202065070								
	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
1202068540								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	512000	ug/L	500000	ug/L	102	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Arsenic	10.9	ug/L					30–MAR–10 15:23	033010B–1
	Barium	0.369	ug/L					30–MAR–10 15:23	033010B–1
	Calcium	489000	ug/L	500000	ug/L	97.7	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Chromium	1.08	ug/L					30–MAR–10 15:23	033010B–1
	Cobalt	–6.45	ug/L					30–MAR–10 15:23	033010B–1
	Copper	3.23	ug/L					30–MAR–10 15:23	033010B–1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Magnesium	491000	ug/L	500000	ug/L	98.1	80.0 – 120.0	30–MAR–10 15:23	033010B–1
	Nickel	3.44	ug/L					30–MAR–10 15:23	033010B–1
	Potassium	–113.0	ug/L					30–MAR–10 15:23	033010B–1
	Selenium	–10.3	ug/L					30–MAR–10 15:23	033010B–1
	Silver	0.19	ug/L					30–MAR–10 15:23	033010B–1
	Sodium	52.7	ug/L					30–MAR–10 15:23	033010B–1
	Vanadium	2.75	ug/L					30–MAR–10 15:23	033010B–1
	Zinc	8.7	ug/L					30–MAR–10 15:23	033010B–1
ICSAB01									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Arsenic	531	ug/L	500	ug/L	106	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Chromium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Cobalt	451	ug/L	500	ug/L	90.2	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Copper	547	ug/L	500	ug/L	109	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Iron	193000	ug/L	200000	ug/L	96.4	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Nickel	463	ug/L	500	ug/L	92.5	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Potassium	5610	ug/L	5000	ug/L	112	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Selenium	2470	ug/L	2500	ug/L	98.8	80.0 – 120.0	30–MAR–10 15:25	033010B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Sodium	5450	ug/L	5000	ug/L	109	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Vanadium	523	ug/L	500	ug/L	105	80.0 – 120.0	30–MAR–10 15:25	033010B–1
	Zinc	499	ug/L	500	ug/L	99.7	80.0 – 120.0	30–MAR–10 15:25	033010B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2198–1

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	0.104	ug/L					12–APR–10 21:12	100412–2
	Cadmium	0.361	ug/L					12–APR–10 21:12	100412–2
	Lead	0.207	ug/L					12–APR–10 21:12	100412–2
	Manganese	5.93	ug/L					12–APR–10 21:12	100412–2
	Thallium	–0.022	ug/L					12–APR–10 21:12	100412–2
	Uranium	–0.021	ug/L					12–APR–10 21:12	100412–2
ICSAB01									
	Beryllium	21.9	ug/L	20	ug/L	110	80.0 – 120.0	12–APR–10 21:16	100412–2
	Cadmium	20.7	ug/L	20.44	ug/L	101	80.0 – 120.0	12–APR–10 21:16	100412–2
	Lead	20.7	ug/L	20.19	ug/L	102	80.0 – 120.0	12–APR–10 21:16	100412–2
	Manganese	26.8	ug/L	25.8	ug/L	104	80.0 – 120.0	12–APR–10 21:16	100412–2
	Thallium	19.7	ug/L	20	ug/L	98.5	80.0 – 120.0	12–APR–10 21:16	100412–2
	Uranium	22.0	ug/L	20	ug/L	110	80.0 – 120.0	12–APR–10 21:16	100412–2

METALS
–4–
Interference Check Sample

SDG No: 10–2198–1

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	0.135	ug/L					13–APR–10 09:19	100412–7
ICSAB01									
	Antimony	20.3	ug/L	20	ug/L	101	80.0 – 120.0	13–APR–10 09:21	100412–7

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2198–1 **Client ID** RE32–10–11362S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248550001 **Spike ID:** 1202065058

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Magnesium	ug/L	75–125	5330		85	U	5000	106		P
Nickel	ug/L	75–125	512		1.5	U	500	102		P
Potassium	ug/L	75–125	5570		452		5000	102		P
Selenium	ug/L	75–125	501		5	U	500	99.5		P
Silver	ug/L	75–125	501		1	U	500	100		P
Sodium	ug/L	75–125	5390		265	J	5000	103		P
Vanadium	ug/L	75–125	512		1	U	500	102		P
Zinc	ug/L	75–125	495		3.3	U	500	98.6		P
Aluminum	ug/L	75–125	5210		68	U	5000	104		P
Arsenic	ug/L	75–125	518		5	U	500	103		P
Barium	ug/L	75–125	516		1	U	500	103		P
Calcium	ug/L	75–125	5240		50	U	5000	104		P
Chromium	ug/L	75–125	504		1	U	500	101		P
Cobalt	ug/L	75–125	506		1	U	500	101		P
Copper	ug/L	75–125	512		3	U	500	102		P
Iron	ug/L	75–125	5140		30	U	5000	103		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2198–1 **Client ID** RE32–10–11362S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248550001 **Spike ID:** 1202065073

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	206		1	U	200	103		MS
Beryllium	ug/L	75–125	57.7		0.1	U	50	115		MS
Cadmium	ug/L	75–125	10.9		0.11	U	10	109		MS
Lead	ug/L	75–125	41		0.5	U	40	102		MS
Manganese	ug/L	75–125	53.2		1	U	50	105		MS
Thallium	ug/L	75–125	84.3		0.3	U	100	84.2		MS
Uranium	ug/L	75–125	49.5		0.05	U	50	99		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2198–1 **Client ID** RE46–10–11978S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248551001 **Spike ID:** 1202068543

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.09		0.066	U	2	104		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE32–10–11362D

Sample ID: 248550001 **Duplicate ID:** 1202065057 **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		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/–150	452		442		2.21		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	265	J	257	J	2.85		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.: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE32–10–11362D

Sample ID: 248550001 **Duplicate ID:** 1202065072 **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.: 10–2198–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–11978D

Sample ID: 248551001 **Duplicate ID:** 1202068542 **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. 10-2198-1

Contract: LANL01004

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065056								
	Aluminum	ug/L	5000	5170		103	80-120	P
	Arsenic	ug/L	500	515		103	80-120	P
	Barium	ug/L	500	516		103	80-120	P
	Calcium	ug/L	5000	5170		103	80-120	P
	Chromium	ug/L	500	505		101	80-120	P
	Cobalt	ug/L	500	506		101	80-120	P
	Copper	ug/L	500	511		102	80-120	P
	Iron	ug/L	5000	5090		102	80-120	P
	Magnesium	ug/L	5000	5290		106	80-120	P
	Nickel	ug/L	500	513		103	80-120	P
	Potassium	ug/L	5000	5170		103	80-120	P
	Selenium	ug/L	500	496		99.2	80-120	P
	Silver	ug/L	500	498		99.6	80-120	P
	Sodium	ug/L	5000	5140		103	80-120	P
	Vanadium	ug/L	500	512		102	80-120	P
	Zinc	ug/L	500	497		99.4	80-120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2198–1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065071								
	Beryllium	ug/L	50	55.1		110	80–120	MS
	Cadmium	ug/L	50	52.7		105	80–120	MS
	Lead	ug/L	50	50.9		102	80–120	MS
	Manganese	ug/L	50	56.6		113	80–120	MS
	Thallium	ug/L	50	44.7		89.5	80–120	MS
	Uranium	ug/L	50	49.4		98.7	80–120	MS
	Antimony	ug/L	50	54.4		109	80–120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2198–1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068541								
	Mercury	ug/L	2	2.29		115	80–120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2198-1 **Client ID** RE32-10-11362L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248550001 **Serial Dilution ID:** 1202065059

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	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	452		615	J	36.1			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	265	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. 10-2198-1 **Client ID** RE32-10-11362L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248550001 **Serial Dilution ID:** 1202065074

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	8.85					MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2198-1 **Client ID** RE46-10-11978L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248551001 **Serial Dilution ID:** 1202068544

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: 10-2198-1 **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	962579						
1202065055	MB for batch 962579	MB	W	15-MAR-10	50mL	50mL	
1202065056	LCS for batch 962579	LCS	W	15-MAR-10	50mL	50mL	
1202065058	RE32-10-11362S	MS	W	15-MAR-10	50mL	50mL	
1202065057	RE32-10-11362D	DUP	W	15-MAR-10	50mL	50mL	
248518001	RE36-10-8294	SAMPLE	W	15-MAR-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2198-1 **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	962584						
1202065070	MB for batch 962584	MB	W	15-MAR-10	50mL	50mL	
1202065071	LCS for batch 962584	LCS	W	15-MAR-10	50mL	50mL	
1202065073	RE32-10-11362S	MS	W	15-MAR-10	50mL	50mL	
1202065072	RE32-10-11362D	DUP	W	15-MAR-10	50mL	50mL	
248518001	RE36-10-8294	SAMPLE	W	15-MAR-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2198-1 **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	964195						
1202068540	MB for batch 964195	MB	W	12-MAR-10	20mL	20mL	
1202068541	LCS for batch 964195	LCS	W	12-MAR-10	20mL	20mL	
1202068543	RE46-10-11978S	MS	W	12-MAR-10	20mL	20mL	
1202068542	RE46-10-11978D	DUP	W	12-MAR-10	20mL	20mL	
248518001	RE36-10-8294	SAMPLE	W	12-MAR-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 12–APR–10 **End Date:** 13–APR–10

Client Sdg: 10–2198–1
Method MS
Data File: 100412–2

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	20:44:00					X	X						X		X							X	X		
S10	1	20:49:00					X	X						X		X							X	X		
S100	1	20:53:00					X	X						X		X							X	X		
ICV01	1	20:58:00					X	X						X		X							X	X		
ICB01	1	21:03:00					X	X						X		X							X	X		
CRDL01	1	21:07:00					X	X						X		X							X	X		
ICSA01	1	21:12:00					X	X						X		X							X	X		
ICSAB01	1	21:16:00					X	X						X		X							X	X		
CCV01	1	21:21:00					X	X						X		X							X	X		
CCB01	1	21:26:00					X	X						X		X							X	X		
1202065070	1	21:30:00					X	X						X		X							X	X		
1202065071	1	21:35:00					X	X						X		X							X	X		
ZZZZZZ	1	21:39:00																								
ZZZZZZ	1	21:44:00																								
248518001	1	21:49:00					X	X						X		X							X	X		
ZZZZZZ	1	21:53:00																								
CCV02	1	21:58:00					X	X						X		X							X	X		
CCB02	1	22:02:00					X	X						X		X							X	X		
ZZZZZZ	1	22:07:00																								
1202065072	1	22:12:00					X	X						X		X							X	X		
1202065073	1	22:16:00					X	X						X		X							X	X		
1202065074	5	22:21:00					X	X						X		X							X	X		
ZZZZZZ	1	22:25:00																								
CCV03	1	22:30:00					X	X						X		X							X	X		
CCB03	1	22:35:00					X	X						X		X							X	X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 12–APR–10 **End Date:** 13–APR–10

Client Sdg: 10–2198–1
Method MS
Data File: 100412–7

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	09:05:00		X																						
S10	1	09:08:00		X																						
S100	1	09:10:00		X																						
ICV01	1	09:12:00		X																						
ICB01	1	09:15:00		X																						
CRDL01	1	09:17:00		X																						
ICSA01	1	09:19:00		X																						
ICSAB01	1	09:21:00		X																						
CCV01	1	09:24:00		X																						
CCB01	1	09:26:00		X																						
1202065070	1	09:28:00		X																						
1202065071	1	09:31:00		X																						
ZZZZZZ	1	09:33:00																								
ZZZZZZ	1	09:35:00																								
248518001	1	09:38:00		X																						
ZZZZZZ	1	09:40:00																								
CCV02	1	09:42:00		X																						
CCB02	1	09:45:00		X																						
ZZZZZZ	1	09:47:00																								
1202065072	1	09:49:00		X																						
1202065073	1	09:52:00		X																						
1202065074	5	09:54:00		X																						
ZZZZZZ	1	09:56:00																								
CCV03	1	09:58:00		X																						
CCB03	1	10:01:00		X																						

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 13–MAR–10 **End Date:** 13–MAR–10

Client Sdg: 10–2198–1
Method AV
Data File: 031310W1–8

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	07:07:00															X									
S0.2	1	07:09:00															X									
S0.5	1	07:11:00															X									
S2.0	1	07:13:00															X									
S5.0	1	07:15:00															X									
S10.0	1	07:17:00															X									
ICV01	1	07:19:00															X									
ICB01	1	07:21:00															X									
CRDL01	1	07:23:00															X									
CCV01	1	07:24:00															X									
CCB01	1	07:26:00															X									
ZZZZZZ	1	07:28:00																								
ZZZZZZ	1	07:30:00																								
ZZZZZZ	1	07:32:00																								
ZZZZZZ	1	07:34:00																								
ZZZZZZ	1	07:36:00																								
ZZZZZZ	100	07:38:00																								
ZZZZZZ	100	07:40:00																								
ZZZZZZ	100	07:42:00																								
ZZZZZZ	500	07:44:00																								
ZZZZZZ	100	07:46:00																								
CCV02	1	07:47:00															X									
CCB02	1	07:49:00															X									
ZZZZZZ	1	07:51:00																								
ZZZZZZ	1	07:53:00																								
ZZZZZZ	1	07:55:00																								
1202068540	1	07:57:00															X									
1202068541	1	07:59:00															X									
ZZZZZZ	1	08:01:00																								
ZZZZZZ	1	08:03:00																								
ZZZZZZ	1	08:05:00																								
ZZZZZZ	1	08:07:00																								
ZZZZZZ	1	08:09:00																								
CCV03	1	08:11:00															X									
CCB03	1	08:12:00															X									
248518001	1	08:14:00															X									
ZZZZZZ	1	08:16:00																								
ZZZZZZ	1	08:18:00																								
ZZZZZZ	1	08:20:00																								
ZZZZZZ	1	08:22:00																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	08:24:00																							
1202068542	1	08:26:00													X										
1202068543	1	08:28:00													X										
1202068544	5	08:30:00													X										
ZZZZZZ	1	08:32:00																							
CCV04	1	08:34:00													X										
CCB04	1	08:36:00													X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 30–MAR–10 **End Date:** 30–MAR–10

Client Sdg: 10–2198–1
Method P
Data File: 033010B–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	15:06:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	15:09:00			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	15:11:00	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	15:13:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	15:15:00	X						X				X		X							X				
ICV01	1	15:16:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	15:18:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	15:21:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	15:23:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	15:25:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	15:27:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	15:29:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:30:00																								
ZZZZZZ	1	15:32:00																								
CCV01	1	15:38:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	15:40:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	5	15:43:00																								
ZZZZZZ	10	15:45:00																								
ZZZZZZ	10	15:47:00																								
ZZZZZZ	10	15:49:00																								
ZZZZZZ	10	15:51:00																								
CCV02	1	15:54:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	15:56:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:59:00																								
ZZZZZZ	1	16:02:00																								
ZZZZZZ	1	16:03:00																								
ZZZZZZ	1	16:05:00																								
ZZZZZZ	1	16:07:00																								
ZZZZZZ	1	16:09:00																								
ZZZZZZ	5	16:10:00																								
ZZZZZZ	1	16:12:00																								
CCV03	1	16:14:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	16:16:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	16:19:00																								
ZZZZZZ	1	16:22:00																								
ZZZZZZ	1	16:24:00																								
ZZZZZZ	1	16:26:00																								
ZZZZZZ	1	16:28:00																								
ZZZZZZ	1	16:29:00																								
ZZZZZZ	5	16:30:00																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV04	1	16:33:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	16:35:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV05	1	16:57:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	16:59:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:02:00																								
ZZZZZZ	1	17:05:00																								
ZZZZZZ	1	17:07:00																								
ZZZZZZ	1	17:10:00																								
ZZZZZZ	1	17:13:00																								
ZZZZZZ	5	17:15:00																								
CCV06	1	17:18:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB06	1	17:21:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202065055	1	17:23:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202065056	1	17:27:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:29:00																								
1202065057	1	17:32:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202065058	1	17:35:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202065059	5	17:37:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV07	1	17:40:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB07	1	17:42:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:45:00																								
ZZZZZZ	1	17:48:00																								
248518001	1	17:51:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:54:00																								
ZZZZZZ	1	17:57:00																								
CCV08	1	18:00:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB08	1	18:02:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2198-1

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. 10-2198-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2198-1

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: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	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	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	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
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	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
Sodium	589.592	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	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198-1
Effective Dates: 22-MAR-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	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	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	3.47778	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	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
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
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
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
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	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	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	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	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	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	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	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	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–2198–1
Effective Dates: 22–MAR–10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
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
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
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
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
Sodium	589.592	0.88937	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: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	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
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
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
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	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
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	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	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
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	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2198-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2198–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
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
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

METALS
–12–
Linear Ranges

SDG NO. 10–2198–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
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
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

Raw Data

Spec: Communications time out error.
This message may have resulted when the spectrometer starts up from standby (sleep) mode.
If that is the case, Click on OK and ignore this message.

Otherwise... Check the following:
» Make sure the spectrometer is powered on.
» Make sure the cable is connected between the spectrometer and the computer.
Correct the problem and then press the Reconnect button on the Spectrometer page of the Diagnostics window.
[0104]

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Analysis Begun

Start Time: 3/30/2010 15:06:00 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033010.sif
Batch ID:
Results Data Set: 033010B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/30/2010 15:06:02**
Analyst: **Data Type: Original**
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 RADIAL	146497.9	146497.9	99.1	%	15:06:32
1	Al 396.153Radial†	-101.0	-101.9	[0.00]	µg/L	15:06:52
1	Ca 317.933Radial†	670.1	676.2	[0.00]	µg/L	15:06:52
1	Fe 238.204 Radial†	133.7	134.9	[0.00]	µg/L	15:06:52
1	K 766.490 Radial†	1222.4	1233.5	[0.00]	µg/L	15:06:32
1	Mg 279.077 IEC†	174.9	176.5	[0.00]	µg/L	15:06:52
1	Na 589.592 Radial†	1269.7	1281.2	[0.00]	µg/L	15:06:32
1	Sr 421.552†	-245.3	-247.6	[0.00]	µg/L	15:06:32
1	Sc 361.383	1750148.6	1750148.6	99.719	%	15:07:54
1	Y 371.029	1060907.2	1060907.2	99.705	%	15:07:54
1	Ag 328.068†	3317.5	3326.9	[0.00]	µg/L	15:07:56
1	As 188.979†	-16.5	-16.5	[0.00]	µg/L	15:08:16
1	B 249.677†	3233.9	3243.0	[0.00]	µg/L	15:08:16
1	Ba 233.527†	-160.6	-161.1	[0.00]	µg/L	15:08:16
1	Be 313.107†	-773.6	-775.8	[0.00]	µg/L	15:07:56
1	Cd 226.502†	-119.9	-120.3	[0.00]	µg/L	15:08:16
1	Co 228.616†	-167.4	-167.9	[0.00]	µg/L	15:08:16
1	Cr 267.716†	181.0	181.5	[0.00]	µg/L	15:08:16
1	Cu 324.752†	2790.1	2798.0	[0.00]	µg/L	15:07:56
1	Mn 257.610†	176.6	177.1	[0.00]	µg/L	15:08:16
1	Mo 202.031†	-36.7	-36.8	[0.00]	µg/L	15:08:16
1	Ni 231.604†	-71.2	-71.4	[0.00]	µg/L	15:08:16
1	P 214.914†	0.0	0.0	[0.00]	µg/L	15:08:16
1	Pb 220.353†	115.5	115.9	[0.00]	µg/L	15:08:16
1	S 181.975 Axial†	85.9	86.1	[0.00]	µg/L	15:08:16
1	Sb 206.836†	81.3	81.5	[0.00]	µg/L	15:08:16
1	Se 196.026†	3.3	3.3	[0.00]	µg/L	15:08:16
1	SiO2†	1748.5	1753.4	[0.00]	µg/L	15:08:16
1	Si 251.611†	853.8	856.2	[0.00]	µg/L	15:07:56
1	Sn 189.927†	-7.6	-7.7	[0.00]	µg/L	15:08:16
1	Ti 334.940†	867.0	869.5	[0.00]	µg/L	15:07:56
1	Tl 190.801†	-111.8	-112.1	[0.00]	µg/L	15:08:16
1	U 409.014†	-248.2	-248.9	[0.00]	µg/L	15:07:56
1	V 292.402†	416.2	417.4	[0.00]	µg/L	15:07:56
1	Zn 213.857†	524.3	525.8	[0.00]	µg/L	15:08:16
2	Sc RADIAL	147907.3	147907.3	100	%	15:06:55
2	Al 396.153Radial†	-34.8	-34.7	[0.00]	µg/L	15:07:15
2	Ca 317.933Radial†	694.0	693.6	[0.00]	µg/L	15:07:15
2	Fe 238.204 Radial†	148.0	147.9	[0.00]	µg/L	15:07:15
2	K 766.490 Radial†	1396.5	1395.7	[0.00]	µg/L	15:06:55
2	Mg 279.077 IEC†	152.8	152.7	[0.00]	µg/L	15:07:15
2	Na 589.592 Radial†	1149.0	1148.4	[0.00]	µg/L	15:06:55
2	Sr 421.552†	-193.4	-193.3	[0.00]	µg/L	15:06:55
2	Sc 361.383	1758204.8	1758204.8	100.18	%	15:08:19
2	Y 371.029	1066082.1	1066082.1	100.19	%	15:08:19
2	Ag 328.068†	3417.1	3411.0	[0.00]	µg/L	15:08:21
2	As 188.979†	-15.0	-15.0	[0.00]	µg/L	15:08:41

2	B 249.677†	3227.6	3221.9	[0.00]	µg/L	15:08:41
2	Ba 233.527†	-147.6	-147.4	[0.00]	µg/L	15:08:41
2	Be 313.107†	-698.8	-697.5	[0.00]	µg/L	15:08:21
2	Cd 226.502†	-114.7	-114.5	[0.00]	µg/L	15:08:41
2	Co 228.616†	-169.7	-169.4	[0.00]	µg/L	15:08:41
2	Cr 267.716†	163.9	163.6	[0.00]	µg/L	15:08:41
2	Cu 324.752†	2765.8	2760.9	[0.00]	µg/L	15:08:21
2	Mn 257.610†	183.5	183.2	[0.00]	µg/L	15:08:41
2	Mo 202.031†	-33.7	-33.6	[0.00]	µg/L	15:08:41
2	Ni 231.604†	-86.0	-85.8	[0.00]	µg/L	15:08:41
2	P 214.914†	8.3	8.3	[0.00]	µg/L	15:08:41
2	Pb 220.353†	81.9	81.8	[0.00]	µg/L	15:08:41
2	S 181.975 Axial†	81.0	80.8	[0.00]	µg/L	15:08:41
2	Sb 206.836†	78.6	78.4	[0.00]	µg/L	15:08:41
2	Se 196.026†	28.8	28.8	[0.00]	µg/L	15:08:41
2	SiO2†	1754.9	1751.8	[0.00]	µg/L	15:08:41
2	Si 251.611†	1018.7	1016.9	[0.00]	µg/L	15:08:21
2	Sn 189.927†	0.3	0.3	[0.00]	µg/L	15:08:41
2	Ti 334.940†	994.7	992.9	[0.00]	µg/L	15:08:21
2	Tl 190.801†	-109.6	-109.4	[0.00]	µg/L	15:08:41
2	U 409.014†	-263.3	-262.8	[0.00]	µg/L	15:08:21
2	V 292.402†	284.4	283.9	[0.00]	µg/L	15:08:21
2	Zn 213.857†	528.6	527.6	[0.00]	µg/L	15:08:41
3	Sc RADIAL	149084.2	149084.2	101	%	15:07:17
3	Al 396.153Radial†	-52.4	-52.0	[0.00]	µg/L	15:07:37
3	Ca 317.933Radial†	730.3	724.2	[0.00]	µg/L	15:07:37
3	Fe 238.204 Radial†	140.4	139.2	[0.00]	µg/L	15:07:37
3	K 766.490 Radial†	1320.3	1309.2	[0.00]	µg/L	15:07:17
3	Mg 279.077 IEC†	178.6	177.1	[0.00]	µg/L	15:07:37
3	Na 589.592 Radial†	1200.4	1190.3	[0.00]	µg/L	15:07:17
3	Sr 421.552†	-226.0	-224.1	[0.00]	µg/L	15:07:17
3	Sc 361.383	1756878.6	1756878.6	100.10	%	15:08:43
3	Y 371.029	1065144.1	1065144.1	100.10	%	15:08:43
3	Ag 328.068†	3607.1	3603.4	[0.00]	µg/L	15:08:45
3	As 188.979†	-21.6	-21.6	[0.00]	µg/L	15:09:05
3	B 249.677†	3229.5	3226.2	[0.00]	µg/L	15:09:05
3	Ba 233.527†	-178.2	-178.0	[0.00]	µg/L	15:09:05
3	Be 313.107†	-884.3	-883.4	[0.00]	µg/L	15:08:45
3	Cd 226.502†	-95.4	-95.3	[0.00]	µg/L	15:09:05
3	Co 228.616†	-180.2	-180.0	[0.00]	µg/L	15:09:05
3	Cr 267.716†	190.8	190.6	[0.00]	µg/L	15:09:05
3	Cu 324.752†	2810.8	2808.0	[0.00]	µg/L	15:08:45
3	Mn 257.610†	166.6	166.4	[0.00]	µg/L	15:09:05
3	Mo 202.031†	-33.9	-33.9	[0.00]	µg/L	15:09:05
3	Ni 231.604†	-76.5	-76.4	[0.00]	µg/L	15:09:05
3	P 214.914†	6.7	6.7	[0.00]	µg/L	15:09:05
3	Pb 220.353†	93.4	93.3	[0.00]	µg/L	15:09:05
3	S 181.975 Axial†	96.2	96.1	[0.00]	µg/L	15:09:05
3	Sb 206.836†	74.4	74.3	[0.00]	µg/L	15:09:05
3	Se 196.026†	8.6	8.6	[0.00]	µg/L	15:09:05
3	SiO2†	1756.0	1754.2	[0.00]	µg/L	15:09:05
3	Si 251.611†	973.9	972.9	[0.00]	µg/L	15:08:45
3	Sn 189.927†	-0.2	-0.2	[0.00]	µg/L	15:09:05
3	Ti 334.940†	795.2	794.4	[0.00]	µg/L	15:08:45
3	Tl 190.801†	-129.9	-129.8	[0.00]	µg/L	15:09:05
3	U 409.014†	-340.0	-339.6	[0.00]	µg/L	15:08:45
3	V 292.402†	228.5	228.3	[0.00]	µg/L	15:08:45
3	Zn 213.857†	520.8	520.3	[0.00]	µg/L	15:09:05

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1755077.4	4319.59	0.25%	100.00	%
Sc RADIAL	147829.8	1294.89	0.88%	100	%
Y 371.029	1064044.5	2757.13	0.26%	100.00	%
Ag 328.068†	3447.1	141.77	4.11%	[0.00]	µg/L
Al 396.153Radial†	-62.9	34.89	55.49%	[0.00]	µg/L
As 188.979†	-17.7	3.44	19.45%	[0.00]	µg/L
B 249.677†	3230.3	11.14	0.34%	[0.00]	µg/L
Ba 233.527†	-162.2	15.33	9.46%	[0.00]	µg/L

Be 313.107†	-785.6	93.33	11.88%	[0.00] µg/L
Ca 317.933Radial†	698.0	24.30	3.48%	[0.00] µg/L
Cd 226.502†	-110.0	13.07	11.88%	[0.00] µg/L
Co 228.616†	-172.4	6.63	3.84%	[0.00] µg/L
Cr 267.716†	178.6	13.74	7.69%	[0.00] µg/L
Cu 324.752†	2788.9	24.81	0.89%	[0.00] µg/L
Fe 238.204 Radial†	140.7	6.62	4.70%	[0.00] µg/L
K 766.490 Radial†	1312.8	81.17	6.18%	[0.00] µg/L
Mg 279.077 IEC†	168.8	13.89	8.23%	[0.00] µg/L
Mn 257.610†	175.6	8.49	4.84%	[0.00] µg/L
Mo 202.031†	-34.8	1.78	5.12%	[0.00] µg/L
Na 589.592 Radial†	1206.6	67.93	5.63%	[0.00] µg/L
Ni 231.604†	-77.9	7.31	9.39%	[0.00] µg/L
P 214.914†	5.0	4.37	87.51%	[0.00] µg/L
Pb 220.353†	97.0	17.35	17.90%	[0.00] µg/L
S 181.975 Axial†	87.7	7.77	8.86%	[0.00] µg/L
Sb 206.836†	78.1	3.61	4.63%	[0.00] µg/L
Se 196.026†	13.6	13.43	99.02%	[0.00] µg/L
SiO2†	1753.1	1.20	0.07%	[0.00] µg/L
Si 251.611†	948.7	83.02	8.75%	[0.00] µg/L
Sn 189.927†	-2.5	4.43	174.28%	[0.00] µg/L
Sr 421.552†	-221.7	27.19	12.27%	[0.00] µg/L
Ti 334.940†	885.6	100.24	11.32%	[0.00] µg/L
Tl 190.801†	-117.1	11.10	9.48%	[0.00] µg/L
U 409.014†	-283.8	48.88	17.23%	[0.00] µg/L
V 292.402†	309.8	97.21	31.37%	[0.00] µg/L
Zn 213.857†	524.6	3.82	0.73%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/30/2010 15:09:13
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	151106.4	151106.4	102	%	15:09:44
1	K 766.490 Radial†	3818.5	2422.9	[1000]	µg/L	15:09:44
1	Sr 421.552†	45253.2	44493.6	[100]	µg/L	15:09:44
1	Sc 361.383	1738037.7	1738037.7	99.029	%	15:09:52
1	Y 371.029	1049397.7	1049397.7	98.623	%	15:09:52
1	Ag 328.068†	28574.4	25407.5	[100]	µg/L	15:09:54
1	As 188.979†	268.3	288.6	[100]	µg/L	15:10:14
1	B 249.677†	9207.2	6067.1	[100]	µg/L	15:09:54
1	Ba 233.527†	22852.5	23238.7	[100]	µg/L	15:09:54
1	Be 313.107†	323892.5	327853.5	[100]	µg/L	15:09:52
1	Cd 226.502†	14574.7	14827.6	[100]	µg/L	15:09:54
1	Co 228.616†	7300.6	7544.6	[100]	µg/L	15:10:14
1	Cr 267.716†	11891.0	11829.0	[100]	µg/L	15:09:54
1	Cu 324.752†	26223.3	23691.5	[100]	µg/L	15:09:54
1	Mn 257.610†	76566.4	77141.5	[100]	µg/L	15:09:54
1	Mo 202.031†	3085.6	3150.6	[100]	µg/L	15:10:14
1	Ni 231.604†	8046.1	8202.9	[100]	µg/L	15:09:54
1	P 214.914†	2079.3	2094.7	[500]	µg/L	15:10:14
1	Pb 220.353†	1741.7	1661.8	[100]	µg/L	15:10:14
1	S 181.975 Axial†	326.5	242.0	[200]	µg/L	15:10:14
1	Sb 206.836†	832.0	762.0	[100]	µg/L	15:10:14
1	Se 196.026†	250.1	238.9	[100]	µg/L	15:10:14
1	SiO2†	11525.9	9885.8	[1069.5]	µg/L	15:09:54
1	Si 251.611†	31162.9	30519.8	[500]	µg/L	15:09:54
1	Sn 189.927†	1432.7	1449.3	[100]	µg/L	15:10:14
1	Ti 334.940†	99104.5	99190.5	[100]	µg/L	15:09:54
1	Tl 190.801†	632.9	756.2	[100]	µg/L	15:10:14
1	U 409.014†	1279.0	1575.3	[100]	µg/L	15:09:54
1	V 292.402†	18747.4	18621.3	[100]	µg/L	15:09:54
1	Zn 213.857†	16580.0	16218.0	[100]	µg/L	15:09:54
2	Sc RADIAL	151100.7	151100.7	102	%	15:09:46
2	K 766.490 Radial†	3799.4	2404.3	[1000]	µg/L	15:09:46
2	Sr 421.552†	45444.4	44682.4	[100]	µg/L	15:09:46
2	Sc 361.383	1757465.9	1757465.9	100.14	%	15:10:16
2	Y 371.029	1061598.8	1061598.8	99.770	%	15:10:16
2	Ag 328.068†	28565.6	25079.7	[100]	µg/L	15:10:18
2	As 188.979†	278.0	295.3	[100]	µg/L	15:10:38
2	B 249.677†	9241.9	5999.0	[100]	µg/L	15:10:18
2	Ba 233.527†	23009.2	23140.1	[100]	µg/L	15:10:18
2	Be 313.107†	327346.9	327687.6	[100]	µg/L	15:10:16
2	Cd 226.502†	14590.2	14680.4	[100]	µg/L	15:10:18
2	Co 228.616†	7268.8	7431.4	[100]	µg/L	15:10:38
2	Cr 267.716†	12079.9	11884.9	[100]	µg/L	15:10:18
2	Cu 324.752†	26500.5	23675.6	[100]	µg/L	15:10:18
2	Mn 257.610†	77037.2	76756.9	[100]	µg/L	15:10:18
2	Mo 202.031†	3083.7	3114.3	[100]	µg/L	15:10:38
2	Ni 231.604†	8112.2	8179.1	[100]	µg/L	15:10:18
2	P 214.914†	2063.1	2055.3	[500]	µg/L	15:10:38
2	Pb 220.353†	1736.3	1637.0	[100]	µg/L	15:10:38
2	S 181.975 Axial†	322.2	234.0	[200]	µg/L	15:10:38
2	Sb 206.836†	843.3	764.1	[100]	µg/L	15:10:38
2	Se 196.026†	260.0	246.1	[100]	µg/L	15:10:38
2	SiO2†	11608.3	9839.4	[1069.5]	µg/L	15:10:18
2	Si 251.611†	31441.9	30450.5	[500]	µg/L	15:10:18
2	Sn 189.927†	1435.4	1436.0	[100]	µg/L	15:10:38
2	Ti 334.940†	99940.5	98919.1	[100]	µg/L	15:10:18
2	Tl 190.801†	638.1	754.3	[100]	µg/L	15:10:38
2	U 409.014†	1394.8	1676.7	[100]	µg/L	15:10:18
2	V 292.402†	18757.2	18421.9	[100]	µg/L	15:10:18

2	Zn 213.857†	16630.2	16083.1	[100]	µg/L	15:10:18
3	Sc RADIAL	150595.1	150595.1	102	%	15:09:48
3	K 766.490 Radial†	3957.0	2571.5	[1000]	µg/L	15:09:48
3	Sr 421.552†	45519.0	44904.8	[100]	µg/L	15:09:48
3	Sc 361.383	1739244.5	1739244.5	99.098	%	15:10:40
3	Y 371.029	1050569.8	1050569.8	98.734	%	15:10:40
3	Ag 328.068†	28423.4	25235.1	[100]	µg/L	15:10:42
3	As 188.979†	270.5	290.7	[100]	µg/L	15:11:02
3	B 249.677†	9031.4	5883.3	[100]	µg/L	15:10:42
3	Ba 233.527†	22814.2	23184.1	[100]	µg/L	15:10:42
3	Be 313.107†	324651.0	328391.9	[100]	µg/L	15:10:40
3	Cd 226.502†	14381.3	14622.3	[100]	µg/L	15:10:42
3	Co 228.616†	7305.3	7544.2	[100]	µg/L	15:11:02
3	Cr 267.716†	11842.0	11771.3	[100]	µg/L	15:10:42
3	Cu 324.752†	26162.4	23611.6	[100]	µg/L	15:10:42
3	Mn 257.610†	76240.8	76759.2	[100]	µg/L	15:10:42
3	Mo 202.031†	3086.5	3149.4	[100]	µg/L	15:11:02
3	Ni 231.604†	7930.5	8080.6	[100]	µg/L	15:10:42
3	P 214.914†	2052.5	2066.2	[500]	µg/L	15:11:02
3	Pb 220.353†	1737.1	1655.9	[100]	µg/L	15:11:02
3	S 181.975 Axial†	322.8	238.0	[200]	µg/L	15:11:02
3	Sb 206.836†	838.9	768.4	[100]	µg/L	15:11:02
3	Se 196.026†	267.2	256.1	[100]	µg/L	15:11:02
3	SiO2†	11482.8	9834.2	[1069.5]	µg/L	15:10:42
3	Si 251.611†	31025.8	30359.6	[500]	µg/L	15:10:42
3	Sn 189.927†	1439.4	1455.1	[100]	µg/L	15:11:02
3	Ti 334.940†	98234.7	98243.4	[100]	µg/L	15:10:42
3	Tl 190.801†	640.7	763.7	[100]	µg/L	15:11:02
3	U 409.014†	1354.3	1650.4	[100]	µg/L	15:10:42
3	V 292.402†	18608.8	18468.4	[100]	µg/L	15:10:42
3	Zn 213.857†	16438.9	16064.0	[100]	µg/L	15:10:42

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1744916.0	10885.22	0.62%	99.421	%
Sc RADIAL	150934.1	293.54	0.19%	102	%
Y 371.029	1053855.4	6731.54	0.64%	99.042	%
Ag 328.068†	25240.8	163.97	0.65%	[100]	µg/L
As 188.979†	291.5	3.43	1.18%	[100]	µg/L
B 249.677†	5983.1	92.92	1.55%	[100]	µg/L
Ba 233.527†	23187.6	49.38	0.21%	[100]	µg/L
Be 313.107†	327977.7	368.24	0.11%	[100]	µg/L
Cd 226.502†	14710.1	105.82	0.72%	[100]	µg/L
Co 228.616†	7506.8	65.26	0.87%	[100]	µg/L
Cr 267.716†	11828.4	56.81	0.48%	[100]	µg/L
Cu 324.752†	23659.5	42.28	0.18%	[100]	µg/L
K 766.490 Radial†	2466.2	91.66	3.72%	[1000]	µg/L
Mn 257.610†	76885.9	221.36	0.29%	[100]	µg/L
Mo 202.031†	3138.1	20.62	0.66%	[100]	µg/L
Ni 231.604†	8154.2	64.85	0.80%	[100]	µg/L
P 214.914†	2072.0	20.35	0.98%	[500]	µg/L
Pb 220.353†	1651.6	12.97	0.79%	[100]	µg/L
S 181.975 Axial†	238.0	4.01	1.69%	[200]	µg/L
Sb 206.836†	764.9	3.26	0.43%	[100]	µg/L
Se 196.026†	247.0	8.60	3.48%	[100]	µg/L
SiO2†	9853.1	28.41	0.29%	[1069.5]	µg/L
Si 251.611†	30443.3	80.34	0.26%	[500]	µg/L
Sn 189.927†	1446.8	9.79	0.68%	[100]	µg/L
Sr 421.552†	44693.6	205.85	0.46%	[100]	µg/L
Ti 334.940†	98784.3	487.73	0.49%	[100]	µg/L
Tl 190.801†	758.0	4.95	0.65%	[100]	µg/L
U 409.014†	1634.1	52.62	3.22%	[100]	µg/L
V 292.402†	18503.9	104.35	0.56%	[100]	µg/L
Zn 213.857†	16121.7	83.92	0.52%	[100]	µg/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/30/2010 15:11:10
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	153789.5	153789.5	104	%	15:11:41
1	Al 396.153Radial†	24481.1	23595.3	[5000]	µg/L	15:11:41
1	Ca 317.933Radial†	85129.1	81132.2	[5000]	µg/L	15:11:41
1	K 766.490 Radial†	13676.3	11833.5	[5000]	µg/L	15:11:41
1	Mg 279.077 IEC†	12814.2	12148.8	[5000]	µg/L	15:11:41
1	Sr 421.552†	211787.7	203802.1	[500]	µg/L	15:11:39
1	Sc 361.383	1735951.4	1735951.4	98.910	%	15:11:54
1	Y 371.029	1040161.6	1040161.6	97.755	%	15:11:54
1	Ag 328.068†	126606.2	124554.0	[500]	µg/L	15:11:54
1	As 188.979†	1397.2	1430.3	[500]	µg/L	15:12:14
1	B 249.677†	33216.3	30351.9	[500]	µg/L	15:11:54
1	Ba 233.527†	113577.9	114991.4	[500]	µg/L	15:11:54
1	Be 313.107†	1647596.1	1666534.1	[500]	µg/L	15:11:54
1	Cd 226.502†	72100.2	73004.6	[500]	µg/L	15:11:54
1	Co 228.616†	36584.4	37159.9	[500]	µg/L	15:11:54
1	Cr 267.716†	58901.1	59371.5	[500]	µg/L	15:11:54
1	Cu 324.752†	119610.4	118139.2	[500]	µg/L	15:11:54
1	Mn 257.610†	371672.1	375591.5	[500]	µg/L	15:11:54
1	Mo 202.031†	15467.6	15672.8	[500]	µg/L	15:12:14
1	Ni 231.604†	39521.0	40034.3	[500]	µg/L	15:11:54
1	P 214.914†	10340.4	10449.3	[2500]	µg/L	15:12:14
1	Pb 220.353†	8226.2	8219.8	[500]	µg/L	15:12:14
1	S 181.975 Axial†	1292.3	1218.9	[1000]	µg/L	15:12:14
1	Sb 206.836†	3846.6	3810.9	[500]	µg/L	15:12:14
1	Se 196.026†	1241.8	1241.9	[500]	µg/L	15:12:14
1	SiO2†	50998.0	49806.7	[5347.5]	µg/L	15:11:54
1	Si 251.611†	153709.5	154454.4	[2500]	µg/L	15:11:54
1	Sn 189.927†	7149.3	7230.6	[500]	µg/L	15:12:14
1	Ti 334.940†	494470.5	499032.8	[500]	µg/L	15:11:54
1	Tl 190.801†	3575.0	3731.4	[500]	µg/L	15:12:14
1	U 409.014†	7148.3	7510.8	[500]	µg/L	15:11:54
1	V 292.402†	92825.6	93538.5	[500]	µg/L	15:11:54
1	Zn 213.857†	80524.0	80886.6	[500]	µg/L	15:11:54
2	Sc RADIAL	152865.2	152865.2	103	%	15:11:45
2	Al 396.153Radial†	24989.3	24229.1	[5000]	µg/L	15:11:45
2	Ca 317.933Radial†	86974.4	83411.5	[5000]	µg/L	15:11:45
2	K 766.490 Radial†	13984.7	12211.3	[5000]	µg/L	15:11:45
2	Mg 279.077 IEC†	12966.9	12370.9	[5000]	µg/L	15:11:45
2	Sr 421.552†	222524.3	215416.0	[500]	µg/L	15:11:43
2	Sc 361.383	1734190.5	1734190.5	98.810	%	15:12:17
2	Y 371.029	1038691.4	1038691.4	97.617	%	15:12:17
2	Ag 328.068†	126509.4	124586.0	[500]	µg/L	15:12:17
2	As 188.979†	1391.7	1426.2	[500]	µg/L	15:12:37
2	B 249.677†	33048.7	30216.4	[500]	µg/L	15:12:17
2	Ba 233.527†	113148.6	114673.5	[500]	µg/L	15:12:17
2	Be 313.107†	1642503.0	1663071.1	[500]	µg/L	15:12:17
2	Cd 226.502†	71973.8	72950.7	[500]	µg/L	15:12:17
2	Co 228.616†	36618.8	37232.2	[500]	µg/L	15:12:17
2	Cr 267.716†	58524.7	59051.0	[500]	µg/L	15:12:17
2	Cu 324.752†	119301.7	117949.6	[500]	µg/L	15:12:17
2	Mn 257.610†	370432.5	374718.5	[500]	µg/L	15:12:17
2	Mo 202.031†	15519.2	15740.9	[500]	µg/L	15:12:37
2	Ni 231.604†	39230.4	39780.8	[500]	µg/L	15:12:17
2	P 214.914†	10372.7	10492.7	[2500]	µg/L	15:12:37
2	Pb 220.353†	8220.3	8222.3	[500]	µg/L	15:12:37
2	S 181.975 Axial†	1292.2	1220.1	[1000]	µg/L	15:12:37
2	Sb 206.836†	3819.7	3787.6	[500]	µg/L	15:12:37
2	Se 196.026†	1255.4	1257.0	[500]	µg/L	15:12:37
2	SiO2†	51109.7	49972.2	[5347.5]	µg/L	15:12:17

2	Si 251.611†	153212.5	154109.2	[2500]	µg/L	15:12:17
2	Sn 189.927†	7129.5	7217.9	[500]	µg/L	15:12:37
2	Ti 334.940†	493094.1	498147.4	[500]	µg/L	15:12:17
2	Tl 190.801†	3556.4	3716.3	[500]	µg/L	15:12:37
2	U 409.014†	6944.1	7311.5	[500]	µg/L	15:12:17
2	V 292.402†	92554.7	93359.6	[500]	µg/L	15:12:17
2	Zn 213.857†	80255.8	80697.8	[500]	µg/L	15:12:17
3	Sc RADIAL	149863.4	149863.4	101	%	15:11:49
3	Al 396.153Radial†	24669.1	24397.3	[5000]	µg/L	15:11:49
3	Ca 317.933Radial†	85030.9	83179.1	[5000]	µg/L	15:11:49
3	K 766.490 Radial†	13600.3	12103.0	[5000]	µg/L	15:11:49
3	Mg 279.077 IEC†	12711.9	12370.7	[5000]	µg/L	15:11:49
3	Sr 421.552†	221546.3	218761.8	[500]	µg/L	15:11:47
3	Sc 361.383	1723472.7	1723472.7	98.199	%	15:12:40
3	Y 371.029	1032864.9	1032864.9	97.070	%	15:12:40
3	Ag 328.068†	125972.8	124835.8	[500]	µg/L	15:12:40
3	As 188.979†	1399.9	1443.2	[500]	µg/L	15:13:00
3	B 249.677†	33059.7	30435.6	[500]	µg/L	15:12:40
3	Ba 233.527†	112125.9	114344.2	[500]	µg/L	15:12:40
3	Be 313.107†	1630400.6	1661084.1	[500]	µg/L	15:12:40
3	Cd 226.502†	71306.5	72724.1	[500]	µg/L	15:12:40
3	Co 228.616†	36272.9	37110.5	[500]	µg/L	15:12:40
3	Cr 267.716†	58285.2	59175.5	[500]	µg/L	15:12:40
3	Cu 324.752†	118561.9	117947.1	[500]	µg/L	15:12:40
3	Mn 257.610†	367562.2	374126.9	[500]	µg/L	15:12:40
3	Mo 202.031†	15553.6	15873.5	[500]	µg/L	15:13:00
3	Ni 231.604†	38922.1	39713.7	[500]	µg/L	15:12:40
3	P 214.914†	10377.3	10562.6	[2500]	µg/L	15:13:00
3	Pb 220.353†	8241.3	8295.5	[500]	µg/L	15:13:00
3	S 181.975 Axial†	1295.0	1231.1	[1000]	µg/L	15:13:00
3	Sb 206.836†	3839.0	3831.3	[500]	µg/L	15:13:00
3	Se 196.026†	1246.3	1255.5	[500]	µg/L	15:13:00
3	SiO2†	50697.4	49873.9	[5347.5]	µg/L	15:12:40
3	Si 251.611†	152190.0	154032.2	[2500]	µg/L	15:12:40
3	Sn 189.927†	7135.8	7269.2	[500]	µg/L	15:13:00
3	Ti 334.940†	489890.4	497988.3	[500]	µg/L	15:12:40
3	Tl 190.801†	3591.9	3774.8	[500]	µg/L	15:13:00
3	U 409.014†	7340.9	7759.3	[500]	µg/L	15:12:40
3	V 292.402†	91865.1	93239.8	[500]	µg/L	15:12:40
3	Zn 213.857†	79572.2	80506.8	[500]	µg/L	15:12:40

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1731204.9	6753.87	0.39%	98.640	%
Sc RADIAL	152172.7	2052.66	1.35%	103	%
Y 371.029	1037239.3	3858.99	0.37%	97.481	%
Ag 328.068†	124658.6	154.27	0.12%	[500]	µg/L
Al 396.153Radial†	24073.9	422.90	1.76%	[5000]	µg/L
As 188.979†	1433.2	8.90	0.62%	[500]	µg/L
B 249.677†	30334.6	110.59	0.36%	[500]	µg/L
Ba 233.527†	114669.7	323.62	0.28%	[500]	µg/L
Be 313.107†	1663563.1	2758.14	0.17%	[500]	µg/L
Ca 317.933Radial†	82574.3	1254.28	1.52%	[5000]	µg/L
Cd 226.502†	72893.1	148.83	0.20%	[500]	µg/L
Co 228.616†	37167.5	61.23	0.16%	[500]	µg/L
Cr 267.716†	59199.3	161.54	0.27%	[500]	µg/L
Cu 324.752†	118012.0	110.23	0.09%	[500]	µg/L
K 766.490 Radial†	12049.3	194.52	1.61%	[5000]	µg/L
Mg 279.077 IEC†	12296.8	128.17	1.04%	[5000]	µg/L
Mn 257.610†	374812.3	736.78	0.20%	[500]	µg/L
Mo 202.031†	15762.4	102.07	0.65%	[500]	µg/L
Ni 231.604†	39842.9	169.11	0.42%	[500]	µg/L
P 214.914†	10501.5	57.19	0.54%	[2500]	µg/L
Pb 220.353†	8245.9	42.98	0.52%	[500]	µg/L
S 181.975 Axial†	1223.3	6.71	0.55%	[1000]	µg/L
Sb 206.836†	3809.9	21.86	0.57%	[500]	µg/L
Se 196.026†	1251.5	8.34	0.67%	[500]	µg/L
SiO2†	49884.3	83.19	0.17%	[5347.5]	µg/L
Si 251.611†	154198.6	224.84	0.15%	[2500]	µg/L

Sn 189.927†	7239.2	26.70	0.37%	[500] µg/L
Sr 421.552†	212660.0	7851.46	3.69%	[500] µg/L
Ti 334.940†	498389.5	562.78	0.11%	[500] µg/L
Tl 190.801†	3740.9	30.37	0.81%	[500] µg/L
U 409.014†	7527.2	224.34	2.98%	[500] µg/L
V 292.402†	93379.3	150.30	0.16%	[500] µg/L
Zn 213.857†	80697.1	189.88	0.24%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/30/2010 15:13:09
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	151479.9	151479.9	102	%	15:13:40
1	Al 396.153Radial†	50248.0	49100.2	[10000]	µg/L	15:13:40
1	Ca 317.933Radial†	172576.6	167720.3	[10000]	µg/L	15:13:40
1	Fe 238.204 Radial†	152851.3	149027.6	[10000]	µg/L	15:13:40
1	K 766.490 Radial†	26338.9	24391.4	[10000]	µg/L	15:13:40
1	Mg 279.077 IEC†	25844.4	25052.9	[10000]	µg/L	15:13:40
1	Na 589.592 Radial†	68427.5	65572.1	[10000]	µg/L	15:13:40
1	Sr 421.552†	443569.3	433102.8	[1000]	µg/L	15:13:38
1	Sc 361.383	1755665.6	1755665.6	100.03	%	15:13:53
1	Y 371.029	1044873.8	1044873.8	98.198	%	15:13:53
1	Ag 328.068†	252438.6	248906.9	[1000]	µg/L	15:13:55
1	As 188.979†	2841.7	2858.5	[1000]	µg/L	15:14:15
1	B 249.677†	63707.1	60455.4	[1000]	µg/L	15:13:55
1	Ba 233.527†	226640.1	226726.3	[1000]	µg/L	15:13:55
1	Be 313.107†	3325212.5	3324883.9	[1000]	µg/L	15:13:53
1	Cd 226.502†	143542.8	143604.7	[1000]	µg/L	15:13:55
1	Co 228.616†	72617.2	72765.3	[1000]	µg/L	15:13:55
1	Cr 267.716†	117324.3	117106.4	[1000]	µg/L	15:13:55
1	Cu 324.752†	237494.2	234625.7	[1000]	µg/L	15:13:55
1	Mn 257.610†	738395.3	737972.3	[1000]	µg/L	15:13:55
1	Mo 202.031†	31197.3	31221.6	[1000]	µg/L	15:14:15
1	Ni 231.604†	78391.2	78442.8	[1000]	µg/L	15:13:55
1	P 214.914†	20837.0	20825.0	[5000]	µg/L	15:14:15
1	Pb 220.353†	16272.4	16170.0	[1000]	µg/L	15:14:15
1	S 181.975 Axial†	2513.2	2424.7	[2000]	µg/L	15:14:15
1	Sb 206.836†	7651.2	7570.5	[1000]	µg/L	15:14:15
1	Se 196.026†	2493.0	2478.6	[1000]	µg/L	15:14:15
1	SiO2†	100259.4	98472.6	[10695]	µg/L	15:13:55
1	Si 251.611†	305887.8	304836.7	[5000]	µg/L	15:13:55
1	Sn 189.927†	14332.6	14330.3	[1000]	µg/L	15:14:15
1	Ti 334.940†	997065.9	995846.2	[1000]	µg/L	15:13:53
1	Tl 190.801†	7268.8	7383.5	[1000]	µg/L	15:14:15
1	U 409.014†	15767.1	16045.6	[1000]	µg/L	15:13:55
1	V 292.402†	186730.1	186357.7	[1000]	µg/L	15:13:55
1	Zn 213.857†	159431.2	158853.3	[1000]	µg/L	15:13:55
2	Sc RADIAL	151260.0	151260.0	102	%	15:13:44
2	Al 396.153Radial†	50210.8	49135.1	[10000]	µg/L	15:13:44
2	Ca 317.933Radial†	171845.0	167250.0	[10000]	µg/L	15:13:44
2	Fe 238.204 Radial†	152123.6	148533.1	[10000]	µg/L	15:13:44
2	K 766.490 Radial†	26188.8	24282.1	[10000]	µg/L	15:13:44
2	Mg 279.077 IEC†	25703.0	24951.3	[10000]	µg/L	15:13:44
2	Na 589.592 Radial†	67914.1	65167.3	[10000]	µg/L	15:13:44
2	Sr 421.552†	445909.8	436019.5	[1000]	µg/L	15:13:42
2	Sc 361.383	1749606.7	1749606.7	99.688	%	15:14:18
2	Y 371.029	1042280.4	1042280.4	97.955	%	15:14:18
2	Ag 328.068†	254491.0	251839.7	[1000]	µg/L	15:14:20
2	As 188.979†	2842.0	2868.6	[1000]	µg/L	15:14:40
2	B 249.677†	64704.3	61676.3	[1000]	µg/L	15:14:20
2	Ba 233.527†	228264.2	229140.1	[1000]	µg/L	15:14:20
2	Be 313.107†	3335523.1	3346738.2	[1000]	µg/L	15:14:18
2	Cd 226.502†	144794.1	145356.9	[1000]	µg/L	15:14:20
2	Co 228.616†	73330.2	73732.0	[1000]	µg/L	15:14:20
2	Cr 267.716†	118422.9	118614.6	[1000]	µg/L	15:14:20
2	Cu 324.752†	239130.0	237088.8	[1000]	µg/L	15:14:20
2	Mn 257.610†	744297.2	746448.9	[1000]	µg/L	15:14:20
2	Mo 202.031†	31343.1	31475.9	[1000]	µg/L	15:14:40
2	Ni 231.604†	78921.8	79246.4	[1000]	µg/L	15:14:20
2	P 214.914†	20931.4	20991.9	[5000]	µg/L	15:14:40
2	Pb 220.353†	16369.7	16323.9	[1000]	µg/L	15:14:40

2	S 181.975 Axial†	2522.0	2442.1	[2000]	µg/L	15:14:40
2	Sb 206.836†	7703.7	7649.7	[1000]	µg/L	15:14:40
2	Se 196.026†	2507.4	2501.6	[1000]	µg/L	15:14:40
2	SiO2†	101466.2	100030.3	[10695]	µg/L	15:14:20
2	Si 251.611†	308702.3	308718.9	[5000]	µg/L	15:14:20
2	Sn 189.927†	14433.4	14481.1	[1000]	µg/L	15:14:40
2	Ti 334.940†	998815.3	1001052.9	[1000]	µg/L	15:14:18
2	Tl 190.801†	7296.7	7436.6	[1000]	µg/L	15:14:40
2	U 409.014†	15818.7	16151.9	[1000]	µg/L	15:14:20
2	V 292.402†	188107.1	188385.4	[1000]	µg/L	15:14:20
2	Zn 213.857†	161016.2	160995.1	[1000]	µg/L	15:14:20
3	Sc RADIAL	151014.0	151014.0	102	%	15:13:48
3	Al 396.153Radial†	50198.3	49202.7	[10000]	µg/L	15:13:48
3	Ca 317.933Radial†	171941.8	167618.5	[10000]	µg/L	15:13:48
3	Fe 238.204 Radial†	152128.1	148779.8	[10000]	µg/L	15:13:48
3	K 766.490 Radial†	26223.9	24358.2	[10000]	µg/L	15:13:48
3	Mg 279.077 IEC†	25716.3	25005.2	[10000]	µg/L	15:13:48
3	Na 589.592 Radial†	67843.5	65206.4	[10000]	µg/L	15:13:48
3	Sr 421.552†	446265.2	437077.4	[1000]	µg/L	15:13:46
3	Sc 361.383	1732533.9	1732533.9	98.716	%	15:14:42
3	Y 371.029	1032118.8	1032118.8	97.000	%	15:14:42
3	Ag 328.068†	255803.1	255684.5	[1000]	µg/L	15:14:45
3	As 188.979†	2815.4	2869.7	[1000]	µg/L	15:15:05
3	B 249.677†	64798.9	62411.8	[1000]	µg/L	15:14:45
3	Ba 233.527†	230158.6	233315.5	[1000]	µg/L	15:14:45
3	Be 313.107†	3286563.4	3330113.2	[1000]	µg/L	15:14:42
3	Cd 226.502†	145823.0	147830.4	[1000]	µg/L	15:14:45
3	Co 228.616†	73882.3	75016.1	[1000]	µg/L	15:14:45
3	Cr 267.716†	119164.2	120536.2	[1000]	µg/L	15:14:45
3	Cu 324.752†	240884.9	241230.3	[1000]	µg/L	15:14:45
3	Mn 257.610†	748765.6	758332.8	[1000]	µg/L	15:14:45
3	Mo 202.031†	31112.5	31552.1	[1000]	µg/L	15:15:05
3	Ni 231.604†	79518.6	80631.2	[1000]	µg/L	15:14:45
3	P 214.914†	20780.9	21046.3	[5000]	µg/L	15:15:05
3	Pb 220.353†	16271.0	16385.8	[1000]	µg/L	15:15:05
3	S 181.975 Axial†	2504.4	2449.3	[2000]	µg/L	15:15:05
3	Sb 206.836†	7642.3	7663.6	[1000]	µg/L	15:15:05
3	Se 196.026†	2492.7	2511.6	[1000]	µg/L	15:15:05
3	SiO2†	102016.4	101590.7	[10695]	µg/L	15:14:45
3	Si 251.611†	310581.1	313673.7	[5000]	µg/L	15:14:45
3	Sn 189.927†	14306.7	14495.4	[1000]	µg/L	15:15:05
3	Ti 334.940†	986990.6	998947.6	[1000]	µg/L	15:14:42
3	Tl 190.801†	7254.3	7465.7	[1000]	µg/L	15:15:05
3	U 409.014†	15880.8	16371.2	[1000]	µg/L	15:14:45
3	V 292.402†	189443.3	191598.5	[1000]	µg/L	15:14:45
3	Zn 213.857†	162084.4	163668.8	[1000]	µg/L	15:14:45

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1745935.4	11994.92	0.69%	99.479	%
Sc RADIAL	151251.3	233.07	0.15%	102	%
Y 371.029	1039757.6	6741.31	0.65%	97.717	%
Ag 328.068†	252143.7	3399.00	1.35%	[1000]	µg/L
Al 396.153Radial†	49146.0	52.14	0.11%	[10000]	µg/L
As 188.979†	2865.6	6.19	0.22%	[1000]	µg/L
B 249.677†	61514.5	988.13	1.61%	[1000]	µg/L
Ba 233.527†	229727.3	3333.66	1.45%	[1000]	µg/L
Be 313.107†	3333911.8	11411.59	0.34%	[1000]	µg/L
Ca 317.933Radial†	167529.6	247.39	0.15%	[10000]	µg/L
Cd 226.502†	145597.3	2123.07	1.46%	[1000]	µg/L
Co 228.616†	73837.8	1129.09	1.53%	[1000]	µg/L
Cr 267.716†	118752.4	1719.04	1.45%	[1000]	µg/L
Cu 324.752†	237648.3	3337.68	1.40%	[1000]	µg/L
Fe 238.204 Radial†	148780.2	247.21	0.17%	[10000]	µg/L
K 766.490 Radial†	24343.9	56.06	0.23%	[10000]	µg/L
Mg 279.077 IEC†	25003.1	50.81	0.20%	[10000]	µg/L
Mn 257.610†	747584.7	10227.64	1.37%	[1000]	µg/L
Mo 202.031†	31416.5	173.06	0.55%	[1000]	µg/L
Na 589.592 Radial†	65315.3	223.25	0.34%	[10000]	µg/L

Ni 231.604†	79440.2	1106.98	1.39%	[1000] µg/L
P 214.914†	20954.4	115.28	0.55%	[5000] µg/L
Pb 220.353†	16293.2	111.12	0.68%	[1000] µg/L
S 181.975 Axial†	2438.7	12.65	0.52%	[2000] µg/L
Sb 206.836†	7628.0	50.21	0.66%	[1000] µg/L
Se 196.026†	2497.3	16.89	0.68%	[1000] µg/L
SiO2†	100031.2	1559.01	1.56%	[10695] µg/L
Si 251.611†	309076.4	4429.34	1.43%	[5000] µg/L
Sn 189.927†	14435.6	91.46	0.63%	[1000] µg/L
Sr 421.552†	435399.9	2058.45	0.47%	[1000] µg/L
Ti 334.940†	998615.5	2619.17	0.26%	[1000] µg/L
Tl 190.801†	7428.6	41.70	0.56%	[1000] µg/L
U 409.014†	16189.6	166.03	1.03%	[1000] µg/L
V 292.402†	188780.5	2642.62	1.40%	[1000] µg/L
Zn 213.857†	161172.4	2412.67	1.50%	[1000] µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/30/2010 15:15:12
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	147370.9	147370.9	99.7	%	15:15:41
1	Al 396.153Radial†	240906.1	241719.3	[50000]	µg/L	15:15:41
1	Ca 317.933Radial†	827273.1	829151.6	[50000]	µg/L	15:15:41
1	Fe 238.204 Radial†	295786.6	296567.1	[20000]	µg/L	15:15:41
1	Mg 279.077 IEC†	121547.2	121756.9	[50000]	µg/L	15:15:41
1	Na 589.592 Radial†	132367.2	131572.8	[20000]	µg/L	15:15:41
1	Sc 361.383	1684238.1	1684238.1	95.964	%	15:16:04
1	Y 371.029	1003912.2	1003912.2	94.349	%	15:16:04
2	Sc RADIAL	146863.2	146863.2	99.3	%	15:15:43
2	Al 396.153Radial†	241723.2	243377.1	[50000]	µg/L	15:15:43
2	Ca 317.933Radial†	829762.2	834525.6	[50000]	µg/L	15:15:43
2	Fe 238.204 Radial†	296606.6	298418.2	[20000]	µg/L	15:15:43
2	Mg 279.077 IEC†	121675.8	122307.8	[50000]	µg/L	15:15:43
2	Na 589.592 Radial†	132905.7	132573.9	[20000]	µg/L	15:15:43
2	Sc 361.383	1671225.1	1671225.1	95.222	%	15:16:06
2	Y 371.029	995871.7	995871.7	93.593	%	15:16:06
3	Sc RADIAL	146034.8	146034.8	98.8	%	15:15:45
3	Al 396.153Radial†	239485.6	242492.1	[50000]	µg/L	15:15:45
3	Ca 317.933Radial†	819348.2	828721.4	[50000]	µg/L	15:15:45
3	Fe 238.204 Radial†	292983.7	296444.2	[20000]	µg/L	15:15:45
3	Mg 279.077 IEC†	119881.9	121186.7	[50000]	µg/L	15:15:45
3	Na 589.592 Radial†	131389.7	131798.1	[20000]	µg/L	15:15:45
3	Sc 361.383	1683479.0	1683479.0	95.921	%	15:16:09
3	Y 371.029	1003957.3	1003957.3	94.353	%	15:16:09

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1679647.4	7303.80	0.43%	95.702	%
Sc RADIAL	146756.3	674.41	0.46%	99.3	%
Y 371.029	1001247.1	4655.29	0.46%	94.098	%
Al 396.153Radial†	242529.5	829.53	0.34%	[50000]	µg/L
Ca 317.933Radial†	830799.6	3234.04	0.39%	[50000]	µg/L
Fe 238.204 Radial†	297143.2	1105.88	0.37%	[20000]	µg/L
Mg 279.077 IEC†	121750.5	560.60	0.46%	[50000]	µg/L
Na 589.592 Radial†	131981.6	525.16	0.40%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	251.6	0.00000	0.999990	
Al 396.153Radial	3	Lin Thru 0	0.0	4.853	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	2.866	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	61.33	0.00000	0.999983	
Ba 233.527	3	Lin Thru 0	0.0	229.7	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	3332	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	16.62	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	145.6	0.00000	0.999999	
Co 228.616	3	Lin Thru 0	0.0	73.95	0.00000	0.999995	
Cr 267.716	3	Lin Thru 0	0.0	118.7	0.00000	0.999999	
Cu 324.752	3	Lin Thru 0	0.0	237.3	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	14.86	0.00000	1.000000	
K 766.490 Radial	3	Lin Thru 0	0.0	2.430	0.00000	0.999991	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.438	0.00000	0.999986	
Mn 257.610	3	Lin Thru 0	0.0	748.2	0.00000	0.999996	
Mo 202.031	3	Lin Thru 0	0.0	31.44	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.586	0.00000	0.999992	

Ni 231.604	3	Lin Thru 0	0.0	79.51	0.00000	0.999997
P 214.914	3	Lin Thru 0	0.0	4.192	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	16.33	0.00000	0.999988
S 181.975 Axial	3	Lin Thru 0	0.0	1.220	0.00000	0.999997
Sb 206.836	3	Lin Thru 0	0.0	7.627	0.00000	1.000000
Se 196.026	3	Lin Thru 0	0.0	2.498	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	9.347	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	61.78	0.00000	0.999999
Sn 189.927	3	Lin Thru 0	0.0	14.44	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	433.5	0.00000	0.999953
Ti 334.940	3	Lin Thru 0	0.0	998.2	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.440	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	15.97	0.00000	0.999597
V 292.402	3	Lin Thru 0	0.0	188.3	0.00000	0.999990
Zn 213.857	3	Lin Thru 0	0.0	161.2	0.00000	1.000000

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/30/2010 15:16:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149158.9	149158.9	101	%			15:16:49
1	Al 396.153Radial†	25831.6	25664.3	5263.3	µg/L	5263.3	ppb	15:16:49
1	Ca 317.933Radial†	87376.8	85900.3	5168.4	µg/L	5168.4	ppb	15:16:49
1	Fe 238.204 Radial†	77792.8	76958.9	5178.5	µg/L	5178.5	ppb	15:16:49
1	K 766.490 Radial†	7770.6	6388.5	2626.3	µg/L	2626.3	ppb	15:16:49
1	Mg 279.077 IEC†	13533.9	13244.5	5442.1	µg/L	5442.1	ppb	15:16:49
1	Na 589.592 Radial†	18509.1	17137.5	2599.9	µg/L	2599.9	ppb	15:16:49
1	Sr 421.552†	239535.7	237623.0	548.12	µg/L	548.12	ppb	15:16:47
1	Sc 361.383	1733695.8	1733695.8	98.782	%			15:17:16
1	Y 371.029	1040751.9	1040751.9	97.811	%			15:17:16
1	Ag 328.068†	68135.2	65528.4	266.96	µg/L	266.96	ppb	15:17:16
1	As 188.979†	1329.3	1363.4	483.14	µg/L	483.14	ppb	15:17:36
1	B 249.677†	34869.6	32069.3	521.06	µg/L	521.06	ppb	15:17:16
1	Ba 233.527†	117588.5	119200.9	519.45	µg/L	519.45	ppb	15:17:16
1	Be 313.107†	875829.6	887416.8	266.46	µg/L	266.46	ppb	15:17:16
1	Cd 226.502†	73213.2	74226.2	509.34	µg/L	509.34	ppb	15:17:16
1	Co 228.616†	37882.5	38522.2	521.28	µg/L	521.28	ppb	15:17:16
1	Cr 267.716†	58712.5	59258.0	499.17	µg/L	499.17	ppb	15:17:16
1	Cu 324.752†	124786.7	123536.7	522.16	µg/L	522.16	ppb	15:17:16
1	Mn 257.610†	389862.8	394495.4	527.06	µg/L	527.06	ppb	15:17:16
1	Mo 202.031†	16938.7	17182.4	547.03	µg/L	547.03	ppb	15:17:36
1	Ni 231.604†	40201.0	40774.7	512.85	µg/L	512.85	ppb	15:17:16
1	P 214.914†	10575.5	10701.0	2543.4	µg/L	2543.4	ppb	15:17:36
1	Pb 220.353†	8363.7	8369.8	514.21	µg/L	514.21	ppb	15:17:36
1	S 181.975 Axial†	3115.2	3066.0	2517.9	µg/L	2517.9	ppb	15:17:36
1	Sb 206.836†	3912.6	3882.7	511.03	µg/L	511.03	ppb	15:17:36
1	Se 196.026†	6300.9	6365.0	2550	µg/L	2550	ppb	15:17:36
1	SiO2†	99885.1	99363.8	10607	µg/L	10607	ppb	15:17:16
1	Si 251.611†	304452.4	307258.6	4962.5	µg/L	4962.5	ppb	15:17:16
1	Sn 189.927†	7790.2	7888.8	547.86	µg/L	547.86	ppb	15:17:36
1	Ti 334.940†	499727.2	505004.7	505.26	µg/L	505.26	ppb	15:17:16
1	Tl 190.801†	3892.3	4057.4	552.96	µg/L	552.96	ppb	15:17:36
1	U 409.014†	7143.0	7514.9	502.35	µg/L	502.35	ppb	15:17:16
1	V 292.402†	96557.1	97438.1	524.43	µg/L	524.43	ppb	15:17:16
1	Zn 213.857†	83773.2	84281.8	518.68	µg/L	518.68	ppb	15:17:16
2	Sc RADIAL	150464.5	150464.5	102	%			15:16:53
2	Al 396.153Radial†	26338.4	25940.0	5320.0	µg/L	5320.0	ppb	15:16:53
2	Ca 317.933Radial†	88167.1	85925.3	5169.9	µg/L	5169.9	ppb	15:16:53
2	Fe 238.204 Radial†	78818.8	77298.0	5201.3	µg/L	5201.3	ppb	15:16:53
2	K 766.490 Radial†	7643.7	6197.1	2547.5	µg/L	2547.5	ppb	15:16:53
2	Mg 279.077 IEC†	13736.8	13327.5	5476.1	µg/L	5476.1	ppb	15:16:53
2	Na 589.592 Radial†	18678.7	17145.0	2601.2	µg/L	2601.2	ppb	15:16:53
2	Sr 421.552†	239844.1	235866.0	544.07	µg/L	544.07	ppb	15:16:51
2	Sc 361.383	1726627.6	1726627.6	98.379	%			15:17:39
2	Y 371.029	1036918.0	1036918.0	97.451	%			15:17:39
2	Ag 328.068†	67812.3	65482.6	266.77	µg/L	266.77	ppb	15:17:39
2	As 188.979†	1343.8	1383.7	490.23	µg/L	490.23	ppb	15:17:59
2	B 249.677†	34859.4	32203.4	523.24	µg/L	523.24	ppb	15:17:39
2	Ba 233.527†	117491.5	119589.6	521.15	µg/L	521.15	ppb	15:17:39
2	Be 313.107†	873409.7	888586.5	266.81	µg/L	266.81	ppb	15:17:39
2	Cd 226.502†	73073.6	74387.6	510.44	µg/L	510.44	ppb	15:17:39
2	Co 228.616†	37714.1	38508.0	521.09	µg/L	521.09	ppb	15:17:39
2	Cr 267.716†	58529.2	59315.0	499.66	µg/L	499.66	ppb	15:17:39
2	Cu 324.752†	124562.2	123825.7	523.38	µg/L	523.38	ppb	15:17:39
2	Mn 257.610†	389247.0	395485.0	528.38	µg/L	528.38	ppb	15:17:39
2	Mo 202.031†	16924.2	17237.8	548.80	µg/L	548.80	ppb	15:17:59
2	Ni 231.604†	40215.9	40956.5	515.14	µg/L	515.14	ppb	15:17:39
2	P 214.914†	10595.6	10765.2	2558.7	µg/L	2558.7	ppb	15:17:59
2	Pb 220.353†	8379.7	8420.8	517.34	µg/L	517.34	ppb	15:17:59

2	S 181.975 Axial†	3127.7	3091.5	2538.8 µg/L	2538.8 ppb	15:17:59
2	Sb 206.836†	3893.4	3879.5	510.62 µg/L	510.62 ppb	15:17:59
2	Se 196.026†	6305.0	6395.3	2560 µg/L	2560 ppb	15:17:59
2	SiO2†	99950.6	99844.4	10658 µg/L	10658 ppb	15:17:39
2	Si 251.611†	303842.4	307900.2	4972.8 µg/L	4972.8 ppb	15:17:39
2	Sn 189.927†	7799.1	7930.2	550.73 µg/L	550.73 ppb	15:17:59
2	Ti 334.940†	499097.0	506435.1	506.70 µg/L	506.70 ppb	15:17:39
2	Tl 190.801†	3884.6	4065.7	554.09 µg/L	554.09 ppb	15:17:59
2	U 409.014†	7044.9	7444.7	497.98 µg/L	497.98 ppb	15:17:39
2	V 292.402†	96220.1	97495.7	524.75 µg/L	524.75 ppb	15:17:39
2	Zn 213.857†	83633.8	84487.3	519.94 µg/L	519.94 ppb	15:17:39
3	Sc RADIAL	148694.2	148694.2	101 %		15:16:57
3	Al 396.153Radial†	25757.3	25670.4	5264.3 µg/L	5264.3 ppb	15:16:57
3	Ca 317.933Radial†	86641.6	85440.0	5140.7 µg/L	5140.7 ppb	15:16:57
3	Fe 238.204 Radial†	77077.3	76488.6	5146.8 µg/L	5146.8 ppb	15:16:57
3	K 766.490 Radial†	7760.1	6402.2	2631.9 µg/L	2631.9 ppb	15:16:57
3	Mg 279.077 IEC†	13465.4	13218.4	5431.5 µg/L	5431.5 ppb	15:16:57
3	Na 589.592 Radial†	18458.7	17144.8	2601.0 µg/L	2601.0 ppb	15:16:57
3	Sr 421.552†	238015.5	236853.6	546.35 µg/L	546.35 ppb	15:16:55
3	Sc 361.383	1717483.0	1717483.0	97.858 %		15:18:02
3	Y 371.029	1031891.3	1031891.3	96.978 %		15:18:02
3	Ag 328.068†	67510.7	65541.4	267.02 µg/L	267.02 ppb	15:18:02
3	As 188.979†	1346.0	1393.2	493.54 µg/L	493.54 ppb	15:18:22
3	B 249.677†	34582.2	32108.8	521.70 µg/L	521.70 ppb	15:18:02
3	Ba 233.527†	116478.8	119190.5	519.41 µg/L	519.41 ppb	15:18:02
3	Be 313.107†	866925.4	886687.4	266.25 µg/L	266.25 ppb	15:18:02
3	Cd 226.502†	72305.6	73998.3	507.78 µg/L	507.78 ppb	15:18:02
3	Co 228.616†	37543.9	38538.1	521.50 µg/L	521.50 ppb	15:18:02
3	Cr 267.716†	58047.4	59139.5	498.16 µg/L	498.16 ppb	15:18:02
3	Cu 324.752†	123812.4	123733.6	522.99 µg/L	522.99 ppb	15:18:02
3	Mn 257.610†	386013.5	394287.5	526.78 µg/L	526.78 ppb	15:18:02
3	Mo 202.031†	16915.6	17320.6	551.43 µg/L	551.43 ppb	15:18:22
3	Ni 231.604†	40039.0	40993.3	515.60 µg/L	515.60 ppb	15:18:02
3	P 214.914†	10618.3	10845.7	2578.0 µg/L	2578.0 ppb	15:18:22
3	Pb 220.353†	8376.9	8463.3	519.94 µg/L	519.94 ppb	15:18:22
3	S 181.975 Axial†	3127.7	3108.5	2552.8 µg/L	2552.8 ppb	15:18:22
3	Sb 206.836†	3899.6	3906.9	514.27 µg/L	514.27 ppb	15:18:22
3	Se 196.026†	6296.1	6420.3	2570 µg/L	2570 ppb	15:18:22
3	SiO2†	99144.2	99561.3	10628 µg/L	10628 ppb	15:18:02
3	Si 251.611†	301303.2	306949.8	4957.4 µg/L	4957.4 ppb	15:18:02
3	Sn 189.927†	7767.3	7939.9	551.39 µg/L	551.39 ppb	15:18:22
3	Ti 334.940†	494745.0	504689.0	504.94 µg/L	504.94 ppb	15:18:02
3	Tl 190.801†	3887.5	4089.7	557.29 µg/L	557.29 ppb	15:18:22
3	U 409.014†	7321.2	7765.3	517.97 µg/L	517.97 ppb	15:18:02
3	V 292.402†	95435.5	97214.7	523.30 µg/L	523.30 ppb	15:18:02
3	Zn 213.857†	82911.3	84201.6	518.17 µg/L	518.17 ppb	15:18:02

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1725935.5	98.340	%	0.4631				0.47%
Sc RADIAL	149439.2	101	%	0.6				0.61%
Y 371.029	1036520.4	97.413	%	0.4176				0.43%
Ag 328.068†	65517.5	266.92	µg/L	0.126	266.92	ppb	0.126	0.05%
QC value within limits for Ag 328.068 Recovery = 106.77%								
Al 396.153Radial†	25758.3	5282.6	µg/L	32.46	5282.6	ppb	32.46	0.61%
QC value within limits for Al 396.153Radial Recovery = 105.65%								
As 188.979†	1380.1	488.97	µg/L	5.311	488.97	ppb	5.311	1.09%
QC value within limits for As 188.979 Recovery = 97.79%								
B 249.677†	32127.2	522.00	µg/L	1.124	522.00	ppb	1.124	0.22%
QC value within limits for B 249.677 Recovery = 104.40%								
Ba 233.527†	119327.0	520.00	µg/L	0.990	520.00	ppb	0.990	0.19%
QC value within limits for Ba 233.527 Recovery = 104.00%								
Be 313.107†	887563.5	266.51	µg/L	0.285	266.51	ppb	0.285	0.11%
QC value within limits for Be 313.107 Recovery = 106.60%								
Ca 317.933Radial†	85755.2	5159.7	µg/L	16.44	5159.7	ppb	16.44	0.32%
QC value within limits for Ca 317.933Radial Recovery = 103.19%								
Cd 226.502†	74204.1	509.18	µg/L	1.340	509.18	ppb	1.340	0.26%
QC value within limits for Cd 226.502 Recovery = 101.84%								
Co 228.616†	38522.7	521.29	µg/L	0.204	521.29	ppb	0.204	0.04%

```
   QC value within limits for Co 228.616  Recovery = 104.26%
Cr 267.716†            59237.5      499.00 µg/L         0.764      499.00 ppb          0.764   0.15%
   QC value within limits for Cr 267.716  Recovery = 99.80%
Cu 324.752†           123698.7      522.84 µg/L         0.623      522.84 ppb          0.623   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.57%
Fe 238.204 Radial†     76915.2      5175.5 µg/L         27.35      5175.5 ppb          27.35   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.51%
K 766.490 Radial†       6329.3      2601.9 µg/L         47.21      2601.9 ppb          47.21   1.81%
   QC value within limits for K 766.490 Radial  Recovery = 104.08%
Mg 279.077 IEC†        13263.4      5449.9 µg/L         23.33      5449.9 ppb          23.33   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.00%
Mn 257.610†           394756.0      527.41 µg/L         0.854      527.41 ppb          0.854   0.16%
   QC value within limits for Mn 257.610  Recovery = 105.48%
Mo 202.031†            17246.9      549.09 µg/L         2.212      549.09 ppb          2.212   0.40%
   QC value within limits for Mo 202.031  Recovery = 109.82%
Na 589.592 Radial†     17142.4      2600.7 µg/L          0.67      2600.7 ppb           0.67   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 104.03%
Ni 231.604†            40908.1      514.53 µg/L         1.472      514.53 ppb          1.472   0.29%
   QC value within limits for Ni 231.604  Recovery = 102.91%
P 214.914†             10770.6      2560.0 µg/L         17.30      2560.0 ppb          17.30   0.68%
   QC value within limits for P 214.914  Recovery = 102.40%
Pb 220.353†             8418.0      517.16 µg/L         2.867      517.16 ppb          2.867   0.55%
   QC value within limits for Pb 220.353  Recovery = 103.43%
S 181.975 Axial†        3088.6      2536.5 µg/L         17.56      2536.5 ppb          17.56   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 101.46%
Sb 206.836†             3889.7      511.97 µg/L         2.001      511.97 ppb          2.001   0.39%
   QC value within limits for Sb 206.836  Recovery = 102.39%
Se 196.026†             6393.5        2560 µg/L          11.1        2560 ppb           11.1   0.43%
   QC value within limits for Se 196.026  Recovery = 102.46%
SiO2†                  99589.8       10631 µg/L          25.8       10631 ppb           25.8   0.24%
   QC value within limits for SiO2  Recovery = 99.40%
Si 251.611†           307369.5      4964.2 µg/L          7.86      4964.2 ppb           7.86   0.16%
   QC value within limits for Si 251.611  Recovery = 99.28%
Sn 189.927†             7919.6      549.99 µg/L         1.879      549.99 ppb          1.879   0.34%
   QC value within limits for Sn 189.927  Recovery = 110.00%
Sr 421.552†           236780.8      546.18 µg/L         2.032      546.18 ppb          2.032   0.37%
   QC value within limits for Sr 421.552  Recovery = 109.24%
Ti 334.940†           505376.2      505.63 µg/L         0.934      505.63 ppb          0.934   0.18%
   QC value within limits for Ti 334.940  Recovery = 101.13%
Tl 190.801†             4070.9      554.78 µg/L         2.246      554.78 ppb          2.246   0.40%
   QC value greater than the upper limit for Tl 190.801  Recovery = 110.96%
U 409.014†              7575.0      506.10 µg/L        10.510      506.10 ppb         10.510   2.08%
   QC value within limits for U 409.014  Recovery = 101.22%
V 292.402†             97382.8      524.16 µg/L         0.762      524.16 ppb          0.762   0.15%
   QC value within limits for V 292.402  Recovery = 104.83%
Zn 213.857†            84323.6      518.93 µg/L         0.911      518.93 ppb          0.911   0.18%
   QC value within limits for Zn 213.857  Recovery = 103.79%
QC Failed.  Continue with analysis.
```

Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/30/2010 15:18:31**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **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	153206.5	153206.5	104	%			15:19:00
1	Al 396.153Radial†	-69.1	-3.8	-0.7740	µg/L	-0.7740	ppb	15:19:20
1	Ca 317.933Radial†	556.4	-161.1	-9.6939	µg/L	-9.6939	ppb	15:19:20
1	Fe 238.204 Radial†	151.0	5.0	0.3342	µg/L	0.3342	ppb	15:19:20
1	K 766.490 Radial†	1545.6	178.5	73.465	µg/L	73.465	ppb	15:19:00
1	Mg 279.077 IEC†	183.7	8.5	3.4678	µg/L	3.4678	ppb	15:19:20
1	Na 589.592 Radial†	1438.4	181.3	27.462	µg/L	27.462	ppb	15:19:00
1	Sr 421.552†	-358.4	-124.2	-0.2864	µg/L	-0.2864	ppb	15:19:00
1	Sc 361.383	1778800.0	1778800.0	101.35	%			15:20:22
1	Y 371.029	1078865.1	1078865.1	101.39	%			15:20:22
1	Ag 328.068†	3508.3	14.4	0.0586	µg/L	0.0586	ppb	15:20:24
1	As 188.979†	-17.8	0.1	0.0419	µg/L	0.0419	ppb	15:20:44
1	B 249.677†	3246.0	-27.6	-0.4511	µg/L	-0.4511	ppb	15:20:44
1	Ba 233.527†	-161.5	2.8	0.0123	µg/L	0.0123	ppb	15:20:44
1	Be 313.107†	-690.5	104.3	0.0315	µg/L	0.0315	ppb	15:20:24
1	Cd 226.502†	-93.8	17.5	0.1201	µg/L	0.1201	ppb	15:20:44
1	Co 228.616†	-157.8	16.7	0.2258	µg/L	0.2258	ppb	15:20:44
1	Cr 267.716†	167.7	-13.1	-0.1107	µg/L	-0.1107	ppb	15:20:44
1	Cu 324.752†	2840.6	13.8	0.0589	µg/L	0.0589	ppb	15:20:24
1	Mn 257.610†	177.2	-0.8	-0.0012	µg/L	-0.0012	ppb	15:20:44
1	Mo 202.031†	-35.1	0.1	0.0047	µg/L	0.0047	ppb	15:20:44
1	Ni 231.604†	-78.0	1.0	0.0124	µg/L	0.0124	ppb	15:20:44
1	P 214.914†	12.7	7.5	1.7929	µg/L	1.7929	ppb	15:20:44
1	Pb 220.353†	60.9	-36.9	-2.2599	µg/L	-2.2599	ppb	15:20:44
1	S 181.975 Axial†	88.2	-0.7	-0.5610	µg/L	-0.5610	ppb	15:20:44
1	Sb 206.836†	85.2	6.0	0.7853	µg/L	0.7853	ppb	15:20:44
1	Se 196.026†	10.8	-2.9	-1.16	µg/L	-1.16	ppb	15:20:44
1	SiO2†	1722.8	-53.3	-5.7163	µg/L	-5.7163	ppb	15:20:44
1	Si 251.611†	826.6	-133.1	-2.1594	µg/L	-2.1594	ppb	15:20:24
1	Sn 189.927†	10.2	12.7	0.8755	µg/L	0.8755	ppb	15:20:44
1	Ti 334.940†	723.6	-171.6	-0.1727	µg/L	-0.1727	ppb	15:20:24
1	Tl 190.801†	-106.8	11.7	1.5760	µg/L	1.5760	ppb	15:20:44
1	U 409.014†	-277.6	9.9	0.6216	µg/L	0.6216	ppb	15:20:24
1	V 292.402†	320.4	6.3	0.0333	µg/L	0.0333	ppb	15:20:24
1	Zn 213.857†	499.5	-31.7	-0.1969	µg/L	-0.1969	ppb	15:20:44
2	Sc RADIAL	150721.0	150721.0	102	%			15:19:22
2	Al 396.153Radial†	-48.2	15.6	3.2216	µg/L	3.2216	ppb	15:19:42
2	Ca 317.933Radial†	575.9	-133.2	-8.0115	µg/L	-8.0115	ppb	15:19:42
2	Fe 238.204 Radial†	145.3	1.8	0.1215	µg/L	0.1215	ppb	15:19:42
2	K 766.490 Radial†	1483.0	141.7	58.321	µg/L	58.321	ppb	15:19:22
2	Mg 279.077 IEC†	163.5	-8.4	-3.4473	µg/L	-3.4473	ppb	15:19:42
2	Na 589.592 Radial†	1391.5	158.1	23.961	µg/L	23.961	ppb	15:19:22
2	Sr 421.552†	-206.6	19.0	0.0439	µg/L	0.0439	ppb	15:19:22
2	Sc 361.383	1728906.2	1728906.2	98.509	%			15:20:46
2	Y 371.029	1049241.8	1049241.8	98.609	%			15:20:46
2	Ag 328.068†	3539.7	146.2	0.5945	µg/L	0.5945	ppb	15:20:48
2	As 188.979†	-19.5	-2.1	-0.7336	µg/L	-0.7336	ppb	15:21:09
2	B 249.677†	3272.0	91.1	1.4866	µg/L	1.4866	ppb	15:21:09
2	Ba 233.527†	-163.6	-3.9	-0.0168	µg/L	-0.0168	ppb	15:21:09
2	Be 313.107†	-841.3	-68.5	-0.0184	µg/L	-0.0184	ppb	15:20:48
2	Cd 226.502†	-103.2	5.3	0.0364	µg/L	0.0364	ppb	15:21:09
2	Co 228.616†	-181.8	-12.1	-0.1642	µg/L	-0.1642	ppb	15:21:09
2	Cr 267.716†	152.0	-24.2	-0.2095	µg/L	-0.2095	ppb	15:21:09
2	Cu 324.752†	2859.0	113.3	0.4833	µg/L	0.4833	ppb	15:20:48
2	Mn 257.610†	143.9	-29.5	-0.0393	µg/L	-0.0393	ppb	15:21:09
2	Mo 202.031†	-37.4	-3.3	-0.1034	µg/L	-0.1034	ppb	15:21:09
2	Ni 231.604†	-63.8	13.1	0.1646	µg/L	0.1646	ppb	15:21:09
2	P 214.914†	23.6	18.9	4.5148	µg/L	4.5148	ppb	15:21:09
2	Pb 220.353†	114.5	19.3	1.1760	µg/L	1.1760	ppb	15:21:09

2	S 181.975 Axial†	90.2	3.8	3.1293 µg/L	3.1293 ppb	15:21:09
2	Sb 206.836†	78.1	1.2	0.1567 µg/L	0.1567 ppb	15:21:09
2	Se 196.026†	19.1	5.8	2.34 µg/L	2.34 ppb	15:21:09
2	SiO2†	1747.5	20.9	2.2278 µg/L	2.2278 ppb	15:21:09
2	Si 251.611†	794.7	-141.9	-2.2988 µg/L	-2.2988 ppb	15:20:48
2	Sn 189.927†	3.9	6.5	0.4511 µg/L	0.4511 ppb	15:21:09
2	Ti 334.940†	935.4	64.0	0.0614 µg/L	0.0614 ppb	15:20:48
2	Tl 190.801†	-90.0	25.7	3.4630 µg/L	3.4630 ppb	15:21:09
2	U 409.014†	-168.9	112.3	7.0568 µg/L	7.0568 ppb	15:20:48
2	V 292.402†	376.2	72.1	0.3855 µg/L	0.3855 ppb	15:20:48
2	Zn 213.857†	512.2	-4.7	-0.0302 µg/L	-0.0302 ppb	15:21:09
3	Sc RADIAL	152025.6	152025.6	103 %		15:19:44
3	Al 396.153Radial†	-48.0	16.2	3.3357 µg/L	3.3357 ppb	15:20:04
3	Ca 317.933Radial†	564.3	-149.3	-8.9821 µg/L	-8.9821 ppb	15:20:04
3	Fe 238.204 Radial†	130.3	-14.0	-0.9447 µg/L	-0.9447 ppb	15:20:04
3	K 766.490 Radial†	1448.5	95.7	39.384 µg/L	39.384 ppb	15:19:44
3	Mg 279.077 IEC†	171.7	-1.8	-0.7289 µg/L	-0.7289 ppb	15:20:04
3	Na 589.592 Radial†	1555.7	306.1	46.445 µg/L	46.445 ppb	15:19:44
3	Sr 421.552†	-343.8	-112.6	-0.2598 µg/L	-0.2598 ppb	15:19:44
3	Sc 361.383	1742344.9	1742344.9	99.275 %		15:21:11
3	Y 371.029	1057263.7	1057263.7	99.363 %		15:21:11
3	Ag 328.068†	3422.8	0.7	0.0063 µg/L	0.0063 ppb	15:21:13
3	As 188.979†	-7.6	10.0	3.4870 µg/L	3.4870 ppb	15:21:33
3	B 249.677†	3234.7	28.0	0.4564 µg/L	0.4564 ppb	15:21:33
3	Ba 233.527†	-159.6	1.4	0.0057 µg/L	0.0057 ppb	15:21:33
3	Be 313.107†	-681.8	98.8	0.0318 µg/L	0.0318 ppb	15:21:13
3	Cd 226.502†	-79.8	29.6	0.2034 µg/L	0.2034 ppb	15:21:33
3	Co 228.616†	-174.0	-2.8	-0.0378 µg/L	-0.0378 ppb	15:21:33
3	Cr 267.716†	147.7	-29.7	-0.2566 µg/L	-0.2566 ppb	15:21:33
3	Cu 324.752†	2965.4	198.1	0.8405 µg/L	0.8405 ppb	15:21:13
3	Mn 257.610†	154.7	-19.8	-0.0264 µg/L	-0.0264 ppb	15:21:33
3	Mo 202.031†	-28.3	6.3	0.1999 µg/L	0.1999 ppb	15:21:33
3	Ni 231.604†	-70.4	6.9	0.0872 µg/L	0.0872 ppb	15:21:33
3	P 214.914†	20.5	15.7	3.7359 µg/L	3.7359 ppb	15:21:33
3	Pb 220.353†	105.1	8.9	0.5395 µg/L	0.5395 ppb	15:21:33
3	S 181.975 Axial†	78.6	-8.5	-6.9957 µg/L	-6.9957 ppb	15:21:33
3	Sb 206.836†	83.3	5.8	0.7689 µg/L	0.7689 ppb	15:21:33
3	Se 196.026†	22.9	9.5	3.79 µg/L	3.79 ppb	15:21:33
3	SiO2†	1714.3	-26.3	-2.8302 µg/L	-2.8302 ppb	15:21:33
3	Si 251.611†	912.8	-29.2	-0.4782 µg/L	-0.4782 ppb	15:21:13
3	Sn 189.927†	4.9	7.5	0.5192 µg/L	0.5192 ppb	15:21:33
3	Ti 334.940†	727.2	-153.0	-0.1564 µg/L	-0.1564 ppb	15:21:13
3	Tl 190.801†	-113.2	3.0	0.4038 µg/L	0.4038 ppb	15:21:33
3	U 409.014†	-166.2	116.3	7.2590 µg/L	7.2590 ppb	15:21:13
3	V 292.402†	217.4	-90.9	-0.4764 µg/L	-0.4764 ppb	15:21:13
3	Zn 213.857†	498.8	-22.1	-0.1381 µg/L	-0.1381 ppb	15:21:33

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750017.0	99.712	%	1.4710				1.48%
Sc RADIAL	151984.4	103	%	0.8				0.82%
Y 371.029	1061790.2	99.788	%	1.4399				1.44%
Ag 328.068†	53.8	0.2198	µg/L	0.32552	0.2198	ppb	0.32552	148.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.4	1.9278	µg/L	2.34050	1.9278	ppb	2.34050	121.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.7	0.9318	µg/L	2.24662	0.9318	ppb	2.24662	241.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.5	0.4973	µg/L	0.96947	0.4973	ppb	0.96947	194.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.1	0.0004	µg/L	0.01528	0.0004	ppb	0.01528	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	44.9	0.0150	µg/L	0.02892	0.0150	ppb	0.02892	193.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-147.9	-8.8958	µg/L	0.84451	-8.8958	ppb	0.84451	9.49%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.5	0.1200	µg/L	0.08355	0.1200	ppb	0.08355	69.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.6	0.0079	µg/L	0.19896	0.0079	ppb	0.19896	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -22.4     -0.1923 µg/L       0.07446     -0.1923 ppb        0.07446  38.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              108.4      0.4609 µg/L       0.39130      0.4609 ppb        0.39130  84.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.4     -0.1630 µg/L       0.68528     -0.1630 ppb        0.68528 420.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        138.6      57.056 µg/L       17.0760      57.056 ppb        17.0760  29.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6     -0.2362 µg/L       3.48380     -0.2362 ppb        3.48380 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -16.7     -0.0223 µg/L       0.01938     -0.0223 ppb        0.01938  86.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.1      0.0337 µg/L       0.15371      0.0337 ppb        0.15371 455.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       215.2      32.622 µg/L       12.0980      32.622 ppb        12.0980  37.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.0      0.0880 µg/L       0.07611      0.0880 ppb        0.07611  86.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                14.0      3.3479 µg/L       1.40183      3.3479 ppb        1.40183  41.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.9     -0.1815 µg/L       1.82791     -0.1815 ppb        1.82791 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.8     -1.4758 µg/L       5.12412     -1.4758 ppb        5.12412 347.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.3      0.5703 µg/L       0.35827      0.5703 ppb        0.35827  62.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.1         1.66 µg/L         2.544         1.66 ppb          2.544 153.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -19.6     -2.1063 µg/L       4.02123     -2.1063 ppb        4.02123 190.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -101.4     -1.6455 µg/L       1.01329     -1.6455 ppb        1.01329  61.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.6153 µg/L       0.22794      0.6153 ppb        0.22794  37.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -72.6     -0.1674 µg/L       0.18347     -0.1674 ppb        0.18347 109.58%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -86.9     -0.0892 µg/L       0.13068     -0.0892 ppb        0.13068 146.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.5      1.8143 µg/L       1.54345      1.8143 ppb        1.54345  85.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                79.5      4.9791 µg/L       3.77508      4.9791 ppb        3.77508  75.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -4.2     -0.0192 µg/L       0.43332     -0.0192 ppb        0.43332 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -19.5     -0.1217 µg/L       0.08455     -0.1217 ppb        0.08455  69.46%
   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: 3/30/2010 15:21:41
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	151538.9	151538.9	103	%			15:22:11
1	Al 396.153Radial†	1003.2	1041.6	214.21	µg/L	214.21	ppb	15:22:13
1	Ca 317.933Radial†	4094.6	3296.4	198.34	µg/L	198.34	ppb	15:22:13
1	Fe 238.204 Radial†	1655.5	1474.3	99.205	µg/L	99.205	ppb	15:22:13
1	K 766.490 Radial†	1863.9	505.5	207.89	µg/L	207.89	ppb	15:22:11
1	Mg 279.077 IEC†	958.9	766.6	314.63	µg/L	314.63	ppb	15:22:13
1	Na 589.592 Radial†	3105.5	1822.9	276.62	µg/L	276.62	ppb	15:22:13
1	Sr 421.552†	2223.1	2390.3	5.5126	µg/L	5.5126	ppb	15:22:13
1	Sc 361.383	1725451.3	1725451.3	98.312	%			15:22:25
1	Y 371.029	1045817.3	1045817.3	98.287	%			15:22:25
1	Ag 328.068†	4999.9	1638.6	6.6213	µg/L	6.6213	ppb	15:22:27
1	As 188.979†	69.8	88.7	31.042	µg/L	31.042	ppb	15:22:47
1	B 249.677†	6177.2	3052.9	49.758	µg/L	49.758	ppb	15:22:27
1	Ba 233.527†	1015.0	1194.5	5.2065	µg/L	5.2065	ppb	15:22:47
1	Be 313.107†	15418.6	16468.9	4.9544	µg/L	4.9544	ppb	15:22:27
1	Cd 226.502†	613.7	734.2	5.0333	µg/L	5.0333	ppb	15:22:47
1	Co 228.616†	186.0	361.7	4.8917	µg/L	4.8917	ppb	15:22:47
1	Cr 267.716†	742.4	576.6	4.8271	µg/L	4.8271	ppb	15:22:47
1	Cu 324.752†	5231.2	2532.1	10.728	µg/L	10.728	ppb	15:22:27
1	Mn 257.610†	7935.2	7895.9	10.541	µg/L	10.541	ppb	15:22:27
1	Mo 202.031†	249.7	288.8	9.1970	µg/L	9.1970	ppb	15:22:47
1	Ni 231.604†	321.7	405.1	5.0950	µg/L	5.0950	ppb	15:22:47
1	P 214.914†	631.6	637.5	151.90	µg/L	151.90	ppb	15:22:47
1	Pb 220.353†	247.1	154.4	9.4588	µg/L	9.4588	ppb	15:22:47
1	S 181.975 Axial†	205.3	121.2	99.392	µg/L	99.392	ppb	15:22:47
1	Sb 206.836†	157.6	82.2	10.863	µg/L	10.863	ppb	15:22:47
1	Se 196.026†	84.0	71.8	28.8	µg/L	28.8	ppb	15:22:47
1	SiO2†	3795.8	2107.8	225.10	µg/L	225.10	ppb	15:22:27
1	Si 251.611†	7081.1	6254.0	101.04	µg/L	101.04	ppb	15:22:27
1	Sn 189.927†	137.7	142.6	9.8879	µg/L	9.8879	ppb	15:22:47
1	Ti 334.940†	5809.9	5024.1	4.9951	µg/L	4.9951	ppb	15:22:27
1	Tl 190.801†	48.7	166.6	22.483	µg/L	22.483	ppb	15:22:47
1	U 409.014†	339.2	628.8	39.760	µg/L	39.760	ppb	15:22:27
1	V 292.402†	1353.2	1066.6	5.7900	µg/L	5.7900	ppb	15:22:27
1	Zn 213.857†	2145.8	1658.1	10.236	µg/L	10.236	ppb	15:22:47
2	Sc RADIAL	148899.4	148899.4	101	%			15:22:15
2	Al 396.153Radial†	1029.3	1084.8	223.07	µg/L	223.07	ppb	15:22:17
2	Ca 317.933Radial†	4074.2	3347.0	201.38	µg/L	201.38	ppb	15:22:17
2	Fe 238.204 Radial†	1672.9	1520.1	102.29	µg/L	102.29	ppb	15:22:17
2	K 766.490 Radial†	1737.9	412.6	169.65	µg/L	169.65	ppb	15:22:15
2	Mg 279.077 IEC†	908.9	733.6	301.09	µg/L	301.09	ppb	15:22:17
2	Na 589.592 Radial†	3196.8	1967.2	298.57	µg/L	298.57	ppb	15:22:17
2	Sr 421.552†	2249.0	2454.5	5.6605	µg/L	5.6605	ppb	15:22:17
2	Sc 361.383	1717434.8	1717434.8	97.855	%			15:22:49
2	Y 371.029	1041401.9	1041401.9	97.872	%			15:22:49
2	Ag 328.068†	4641.9	1296.6	5.2704	µg/L	5.2704	ppb	15:22:51
2	As 188.979†	74.8	94.2	32.949	µg/L	32.949	ppb	15:23:11
2	B 249.677†	6109.5	3013.0	49.107	µg/L	49.107	ppb	15:22:51
2	Ba 233.527†	1038.4	1223.3	5.3319	µg/L	5.3319	ppb	15:23:11
2	Be 313.107†	15483.7	16608.6	4.9987	µg/L	4.9987	ppb	15:22:51
2	Cd 226.502†	609.6	733.0	5.0245	µg/L	5.0245	ppb	15:23:11
2	Co 228.616†	220.5	397.7	5.3796	µg/L	5.3796	ppb	15:23:11
2	Cr 267.716†	746.1	583.9	4.8822	µg/L	4.8822	ppb	15:23:11
2	Cu 324.752†	5004.9	2325.7	9.8653	µg/L	9.8653	ppb	15:22:51
2	Mn 257.610†	7953.3	7952.0	10.617	µg/L	10.617	ppb	15:22:51
2	Mo 202.031†	280.4	321.3	10.233	µg/L	10.233	ppb	15:23:11
2	Ni 231.604†	327.6	412.6	5.1901	µg/L	5.1901	ppb	15:23:11
2	P 214.914†	627.8	636.5	151.69	µg/L	151.69	ppb	15:23:11
2	Pb 220.353†	232.0	140.1	8.5854	µg/L	8.5854	ppb	15:23:11

2	S 181.975 Axial†	215.9	132.9	109.04 µg/L	109.04 ppb	15:23:11
2	Sb 206.836†	152.4	77.7	10.282 µg/L	10.282 ppb	15:23:11
2	Se 196.026†	92.7	81.2	32.6 µg/L	32.6 ppb	15:23:11
2	SiO2†	3796.8	2126.8	227.10 µg/L	227.10 ppb	15:22:51
2	Si 251.611†	7000.4	6205.2	100.23 µg/L	100.23 ppb	15:22:51
2	Sn 189.927†	143.5	149.1	10.342 µg/L	10.342 ppb	15:23:11
2	Ti 334.940†	5589.1	4826.0	4.7945 µg/L	4.7945 ppb	15:22:51
2	Tl 190.801†	51.0	169.2	22.830 µg/L	22.830 ppb	15:23:11
2	U 409.014†	463.4	757.3	47.801 µg/L	47.801 ppb	15:22:51
2	V 292.402†	1329.4	1048.7	5.7113 µg/L	5.7113 ppb	15:22:51
2	Zn 213.857†	2132.0	1654.1	10.211 µg/L	10.211 ppb	15:23:11
3	Sc RADIAL	147081.9	147081.9	99.5 %		15:22:19
3	Al 396.153Radial†	978.9	1046.8	215.27 µg/L	215.27 ppb	15:22:21
3	Ca 317.933Radial†	4080.3	3403.1	204.76 µg/L	204.76 ppb	15:22:21
3	Fe 238.204 Radial†	1709.0	1577.0	106.12 µg/L	106.12 ppb	15:22:21
3	K 766.490 Radial†	1766.2	462.3	190.12 µg/L	190.12 ppb	15:22:19
3	Mg 279.077 IEC†	964.2	800.3	328.44 µg/L	328.44 ppb	15:22:21
3	Na 589.592 Radial†	3215.9	2025.6	307.42 µg/L	307.42 ppb	15:22:21
3	Sr 421.552†	2210.3	2443.2	5.6344 µg/L	5.6344 ppb	15:22:21
3	Sc 361.383	1716395.9	1716395.9	97.796 %		15:23:13
3	Y 371.029	1041833.4	1041833.4	97.913 %		15:23:13
3	Ag 328.068†	4888.2	1551.3	6.2744 µg/L	6.2744 ppb	15:23:15
3	As 188.979†	68.7	88.0	30.793 µg/L	30.793 ppb	15:23:35
3	B 249.677†	6241.4	3151.7	51.368 µg/L	51.368 ppb	15:23:15
3	Ba 233.527†	993.3	1177.8	5.1332 µg/L	5.1332 ppb	15:23:35
3	Be 313.107†	15462.3	16596.3	4.9945 µg/L	4.9945 ppb	15:23:15
3	Cd 226.502†	611.3	735.1	5.0386 µg/L	5.0386 ppb	15:23:35
3	Co 228.616†	213.2	390.4	5.2802 µg/L	5.2802 ppb	15:23:35
3	Cr 267.716†	767.8	606.5	5.0744 µg/L	5.0744 ppb	15:23:35
3	Cu 324.752†	5204.8	2533.2	10.739 µg/L	10.739 ppb	15:23:15
3	Mn 257.610†	7893.3	7895.6	10.540 µg/L	10.540 ppb	15:23:15
3	Mo 202.031†	255.2	295.7	9.4171 µg/L	9.4171 ppb	15:23:35
3	Ni 231.604†	332.4	417.8	5.2544 µg/L	5.2544 ppb	15:23:35
3	P 214.914†	626.6	635.7	151.47 µg/L	151.47 ppb	15:23:35
3	Pb 220.353†	252.3	161.1	9.8653 µg/L	9.8653 ppb	15:23:35
3	S 181.975 Axial†	209.7	126.7	103.93 µg/L	103.93 ppb	15:23:35
3	Sb 206.836†	150.6	75.9	10.029 µg/L	10.029 ppb	15:23:35
3	Se 196.026†	96.6	85.2	34.2 µg/L	34.2 ppb	15:23:35
3	SiO2†	3748.3	2079.7	222.08 µg/L	222.08 ppb	15:23:15
3	Si 251.611†	6933.3	6140.9	99.207 µg/L	99.207 ppb	15:23:15
3	Sn 189.927†	138.0	143.7	9.9640 µg/L	9.9640 ppb	15:23:35
3	Ti 334.940†	5690.8	4933.4	4.9007 µg/L	4.9007 ppb	15:23:15
3	Tl 190.801†	46.5	164.6	22.211 µg/L	22.211 ppb	15:23:35
3	U 409.014†	434.0	727.6	45.909 µg/L	45.909 ppb	15:23:15
3	V 292.402†	1234.9	952.9	5.1933 µg/L	5.1933 ppb	15:23:15
3	Zn 213.857†	2110.8	1633.8	10.083 µg/L	10.083 ppb	15:23:35

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719760.6	97.988	%	0.2824				0.29%
Sc RADIAL	149173.4	101	%	1.5				1.50%
Y 371.029	1043017.5	98.024	%	0.2288				0.23%
Ag 328.068†	1495.5	6.0554	µg/L	0.70156	6.0554	ppb	0.70156	11.59%
QC value within limits for Ag 328.068 Recovery = 121.11%								
Al 396.153Radial†	1057.7	217.52	µg/L	4.840	217.52	ppb	4.840	2.22%
QC value within limits for Al 396.153Radial Recovery = 108.76%								
As 188.979†	90.3	31.595	µg/L	1.1796	31.595	ppb	1.1796	3.73%
QC value within limits for As 188.979 Recovery = 105.32%								
B 249.677†	3072.5	50.078	µg/L	1.1640	50.078	ppb	1.1640	2.32%
QC value within limits for B 249.677 Recovery = 100.16%								
Ba 233.527†	1198.6	5.2239	µg/L	0.10050	5.2239	ppb	0.10050	1.92%
QC value within limits for Ba 233.527 Recovery = 104.48%								
Be 313.107†	16558.0	4.9825	µg/L	0.02447	4.9825	ppb	0.02447	0.49%
QC value within limits for Be 313.107 Recovery = 99.65%								
Ca 317.933Radial†	3348.8	201.49	µg/L	3.210	201.49	ppb	3.210	1.59%
QC value within limits for Ca 317.933Radial Recovery = 100.75%								
Cd 226.502†	734.1	5.0321	µg/L	0.00712	5.0321	ppb	0.00712	0.14%
QC value within limits for Cd 226.502 Recovery = 100.64%								
Co 228.616†	383.3	5.1838	µg/L	0.25781	5.1838	ppb	0.25781	4.97%

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   QC value within limits for Co 228.616  Recovery = 103.68%
Cr 267.716†              589.0      4.9279 µg/L       0.12984      4.9279 ppb        0.12984   2.63%
   QC value within limits for Cr 267.716  Recovery = 98.56%
Cu 324.752†             2463.6      10.444 µg/L        0.5014      10.444 ppb         0.5014   4.80%
   QC value within limits for Cu 324.752  Recovery = 104.44%
Fe 238.204 Radial†      1523.8      102.54 µg/L         3.462      102.54 ppb          3.462   3.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.54%
K 766.490 Radial†        460.2      189.22 µg/L        19.137      189.22 ppb         19.137  10.11%
   QC value within limits for K 766.490 Radial  Recovery = 126.15%
Mg 279.077 IEC†          766.8      314.72 µg/L        13.677      314.72 ppb         13.677   4.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.91%
Mn 257.610†             7914.5      10.566 µg/L        0.0439      10.566 ppb         0.0439   0.42%
   QC value within limits for Mn 257.610  Recovery = 105.66%
Mo 202.031†              301.9      9.6156 µg/L       0.54552      9.6156 ppb        0.54552   5.67%
   QC value within limits for Mo 202.031  Recovery = 96.16%
Na 589.592 Radial†      1938.6      294.20 µg/L        15.859      294.20 ppb         15.859   5.39%
   QC value within limits for Na 589.592 Radial  Recovery = 98.07%
Ni 231.604†              411.8      5.1799 µg/L       0.08020      5.1799 ppb        0.08020   1.55%
   QC value within limits for Ni 231.604  Recovery = 103.60%
P 214.914†               636.6      151.69 µg/L         0.216      151.69 ppb          0.216   0.14%
   QC value within limits for P 214.914  Recovery = 101.13%
Pb 220.353†              151.8      9.3032 µg/L       0.65396      9.3032 ppb        0.65396   7.03%
   QC value within limits for Pb 220.353  Recovery = 93.03%
S 181.975 Axial†         126.9      104.12 µg/L         4.828      104.12 ppb          4.828   4.64%
   QC value within limits for S 181.975 Axial  Recovery = 104.12%
Sb 206.836†               78.6      10.391 µg/L        0.4280      10.391 ppb         0.4280   4.12%
   QC value within limits for Sb 206.836  Recovery = 103.91%
Se 196.026†               79.4        31.9 µg/L          2.75        31.9 ppb           2.75   8.64%
   QC value within limits for Se 196.026  Recovery = 106.24%
SiO2†                   2104.8      224.76 µg/L         2.527      224.76 ppb          2.527   1.12%
   QC value within limits for SiO2  Recovery = 105.52%
Si 251.611†             6200.0      100.16 µg/L         0.919      100.16 ppb          0.919   0.92%
   QC value within limits for Si 251.611  Recovery = 100.16%
Sn 189.927†              145.1      10.065 µg/L        0.2432      10.065 ppb         0.2432   2.42%
   QC value within limits for Sn 189.927  Recovery = 100.65%
Sr 421.552†             2429.3      5.6025 µg/L       0.07899      5.6025 ppb        0.07899   1.41%
   QC value within limits for Sr 421.552  Recovery = 112.05%
Ti 334.940†             4927.8      4.8968 µg/L       0.10034      4.8968 ppb        0.10034   2.05%
   QC value within limits for Ti 334.940  Recovery = 97.94%
Tl 190.801†              166.8      22.508 µg/L        0.3103      22.508 ppb         0.3103   1.38%
   QC value within limits for Tl 190.801  Recovery = 112.54%
U 409.014†               704.5      44.490 µg/L        4.2038      44.490 ppb         4.2038   9.45%
   QC value within limits for U 409.014  Recovery = 88.98%
V 292.402†              1022.7      5.5648 µg/L       0.32420      5.5648 ppb        0.32420   5.83%
   QC value within limits for V 292.402  Recovery = 111.30%
Zn 213.857†             1648.7      10.177 µg/L        0.0818      10.177 ppb         0.0818   0.80%
   QC value within limits for Zn 213.857  Recovery = 101.77%
All analyte(s) passed QC.
```

Sequence No.: 9 **Autosampler Location: 103**
Sample ID: ICSA **Date Collected: 3/30/2010 15:23:44**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **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	135491.3	135491.3	91.7	%			15:24:17
1	Al 396.153Radial†	2286947.2	2495271.1	514200	µg/L	514200	ppb	15:24:15
1	Ca 317.933Radial†	7501113.1	8183504.6	492380	µg/L	492380	ppb	15:24:15
1	Fe 238.204 Radial†	2650457.5	2891680.9	194580	µg/L	194580	ppb	15:24:15
1	K 766.490 Radial†	1541.2	368.7	-93.473	µg/L	-93.473	ppb	15:24:17
1	Mg 279.077 IEC†	1105922.5	1206464.7	494750	µg/L	494750	ppb	15:24:15
1	Na 589.592 Radial†	1485.9	414.6	62.815	µg/L	62.815	ppb	15:24:17
1	Sr 421.552†	1315.2	1656.6	-0.0324	µg/L	-0.0324	ppb	15:24:17
1	Sc 361.383	1550377.8	1550377.8	88.337	%			15:24:30
1	Y 371.029	923448.2	923448.2	86.787	%			15:24:30
1	Ag 328.068†	5848.7	3173.8	-0.9573	µg/L	-0.9573	ppb	15:24:30
1	As 188.979†	-95.4	-90.4	12.078	µg/L	12.078	ppb	15:24:50
1	B 249.677†	3031.8	201.7	3.2757	µg/L	3.2757	ppb	15:24:30
1	Ba 233.527†	439.1	659.2	0.3855	µg/L	0.3855	ppb	15:24:50
1	Be 313.107†	-852.7	-179.7	-0.0514	µg/L	-0.0514	ppb	15:24:30
1	Cd 226.502†	2265.2	2674.3	-2.0990	µg/L	-2.0990	ppb	15:24:50
1	Co 228.616†	89.3	273.6	-6.4479	µg/L	-6.4479	ppb	15:24:50
1	Cr 267.716†	184.7	30.5	0.9733	µg/L	0.9733	ppb	15:24:50
1	Cu 324.752†	-5458.4	-8968.0	3.9288	µg/L	3.9288	ppb	15:24:30
1	Mn 257.610†	15118.7	16939.3	2.5037	µg/L	2.5037	ppb	15:24:30
1	Mo 202.031†	-527.3	-562.2	-1.1409	µg/L	-1.1409	ppb	15:24:50
1	Ni 231.604†	156.5	255.0	3.2074	µg/L	3.2074	ppb	15:24:50
1	P 214.914†	186.0	205.6	31.164	µg/L	31.164	ppb	15:24:50
1	Pb 220.353†	-313.6	-451.9	-2.0684	µg/L	-2.0684	ppb	15:24:50
1	S 181.975 Axial†	145.2	76.7	62.685	µg/L	62.685	ppb	15:24:50
1	Sb 206.836†	119.3	56.9	1.3356	µg/L	1.3356	ppb	15:24:50
1	Se 196.026†	-140.9	-173.0	-1.74	µg/L	-1.74	ppb	15:24:50
1	SiO2†	1610.5	70.0	7.9672	µg/L	7.9672	ppb	15:24:50
1	Si 251.611†	429.3	-462.7	-7.2638	µg/L	-7.2638	ppb	15:24:50
1	Sn 189.927†	24.6	30.4	2.1790	µg/L	2.1790	ppb	15:24:50
1	Ti 334.940†	20051.3	21813.1	-5.6222	µg/L	-5.6222	ppb	15:24:30
1	Tl 190.801†	-176.0	-82.2	-10.613	µg/L	-10.613	ppb	15:24:50
1	U 409.014†	-134.3	131.7	-13.380	µg/L	-13.380	ppb	15:24:30
1	V 292.402†	4112.7	4345.8	2.3469	µg/L	2.3469	ppb	15:24:50
1	Zn 213.857†	4024.9	4031.8	8.3012	µg/L	8.3012	ppb	15:24:50
2	Sc RADIAL	134398.4	134398.4	90.9	%			15:24:22
2	Al 396.153Radial†	2251126.8	2476161.2	510270	µg/L	510270	ppb	15:24:20
2	Ca 317.933Radial†	7350398.9	8084279.8	486410	µg/L	486410	ppb	15:24:20
2	Fe 238.204 Radial†	2597180.3	2856594.8	192220	µg/L	192220	ppb	15:24:20
2	K 766.490 Radial†	1495.4	332.0	-106.03	µg/L	-106.03	ppb	15:24:22
2	Mg 279.077 IEC†	1081861.3	1189810.8	487920	µg/L	487920	ppb	15:24:20
2	Na 589.592 Radial†	1353.7	282.4	42.754	µg/L	42.754	ppb	15:24:22
2	Sr 421.552†	1363.4	1721.3	0.1636	µg/L	0.1636	ppb	15:24:22
2	Sc 361.383	1529302.7	1529302.7	87.136	%			15:24:53
2	Y 371.029	911641.3	911641.3	85.677	%			15:24:53
2	Ag 328.068†	6201.8	3670.3	1.1894	µg/L	1.1894	ppb	15:24:53
2	As 188.979†	-96.9	-93.6	10.426	µg/L	10.426	ppb	15:25:13
2	B 249.677†	3140.4	373.6	6.0801	µg/L	6.0801	ppb	15:24:53
2	Ba 233.527†	440.1	667.2	0.4501	µg/L	0.4501	ppb	15:25:13
2	Be 313.107†	-1112.6	-491.3	-0.1442	µg/L	-0.1442	ppb	15:24:53
2	Cd 226.502†	2279.3	2725.8	-1.4965	µg/L	-1.4965	ppb	15:25:13
2	Co 228.616†	67.3	249.7	-6.6477	µg/L	-6.6477	ppb	15:25:13
2	Cr 267.716†	204.6	56.2	1.1890	µg/L	1.1890	ppb	15:25:13
2	Cu 324.752†	-5392.7	-8977.8	3.3610	µg/L	3.3610	ppb	15:24:53
2	Mn 257.610†	15342.3	17431.7	3.4390	µg/L	3.4390	ppb	15:24:53
2	Mo 202.031†	-551.7	-598.4	-2.5108	µg/L	-2.5108	ppb	15:25:13
2	Ni 231.604†	154.5	255.2	3.2101	µg/L	3.2101	ppb	15:25:13
2	P 214.914†	160.5	179.1	25.620	µg/L	25.620	ppb	15:25:13
2	Pb 220.353†	-375.1	-527.4	-6.8630	µg/L	-6.8630	ppb	15:25:13

2	S 181.975 Axial†	153.7	88.7	72.553 µg/L	72.553 ppb	15:25:13
2	Sb 206.836†	118.2	57.5	1.4515 µg/L	1.4515 ppb	15:25:13
2	Se 196.026†	-176.7	-216.4	-19.9 µg/L	-19.9 ppb	15:25:13
2	SiO2†	1570.0	48.6	5.6934 µg/L	5.6934 ppb	15:25:13
2	Si 251.611†	436.0	-448.3	-7.0262 µg/L	-7.0262 ppb	15:25:13
2	Sn 189.927†	42.7	51.6	3.6464 µg/L	3.6464 ppb	15:25:13
2	Ti 334.940†	20530.0	22675.4	-4.3587 µg/L	-4.3587 ppb	15:24:53
2	Tl 190.801†	-173.6	-82.2	-10.599 µg/L	-10.599 ppb	15:25:13
2	U 409.014†	-99.0	170.2	-10.670 µg/L	-10.670 ppb	15:24:53
2	V 292.402†	4093.4	4387.9	2.8090 µg/L	2.8090 ppb	15:25:13
2	Zn 213.857†	4029.0	4099.2	8.9615 µg/L	8.9615 ppb	15:25:13
3	Sc RADIAL	135723.7	135723.7	91.8 %		15:24:26
3	Al 396.153Radial†	2273186.3	2476011.1	510240 µg/L	510240 ppb	15:24:24
3	Ca 317.933Radial†	7430044.5	8092086.0	486880 µg/L	486880 ppb	15:24:24
3	Fe 238.204 Radial†	2629467.1	2863867.6	192710 µg/L	192710 ppb	15:24:24
3	K 766.490 Radial†	1436.9	252.3	-139.06 µg/L	-139.06 ppb	15:24:26
3	Mg 279.077 IEC†	1095585.1	1193139.5	489280 µg/L	489280 ppb	15:24:24
3	Na 589.592 Radial†	1426.6	347.2	52.627 µg/L	52.627 ppb	15:24:26
3	Sr 421.552†	1369.3	1713.1	0.1409 µg/L	0.1409 ppb	15:24:26
3	Sc 361.383	1526692.0	1526692.0	86.987 %		15:25:16
3	Y 371.029	910201.6	910201.6	85.542 %		15:25:16
3	Ag 328.068†	6006.6	3458.1	0.3388 µg/L	0.3388 ppb	15:25:16
3	As 188.979†	-97.6	-94.5	10.205 µg/L	10.205 ppb	15:25:36
3	B 249.677†	3058.7	285.9	4.6488 µg/L	4.6488 ppb	15:25:16
3	Ba 233.527†	404.6	627.3	0.2707 µg/L	0.2707 ppb	15:25:36
3	Be 313.107†	-1039.4	-409.4	-0.1186 µg/L	-0.1186 ppb	15:25:16
3	Cd 226.502†	2276.1	2726.6	-1.5425 µg/L	-1.5425 ppb	15:25:36
3	Co 228.616†	93.3	279.7	-6.2669 µg/L	-6.2669 ppb	15:25:36
3	Cr 267.716†	191.5	41.6	1.0636 µg/L	1.0636 ppb	15:25:36
3	Cu 324.752†	-5604.7	-9232.1	2.4007 µg/L	2.4007 ppb	15:25:16
3	Mn 257.610†	15289.1	17400.7	3.3421 µg/L	3.3421 ppb	15:25:16
3	Mo 202.031†	-523.8	-567.4	-1.4815 µg/L	-1.4815 ppb	15:25:36
3	Ni 231.604†	202.7	310.9	3.9104 µg/L	3.9104 ppb	15:25:36
3	P 214.914†	185.5	208.2	32.197 µg/L	32.197 ppb	15:25:36
3	Pb 220.353†	-350.8	-500.2	-5.2143 µg/L	-5.2143 ppb	15:25:36
3	S 181.975 Axial†	149.8	84.5	69.091 µg/L	69.091 ppb	15:25:36
3	Sb 206.836†	125.1	65.7	2.5329 µg/L	2.5329 ppb	15:25:36
3	Se 196.026†	-153.6	-190.1	-9.22 µg/L	-9.22 ppb	15:25:36
3	SiO2†	1630.8	121.7	13.502 µg/L	13.502 ppb	15:25:36
3	Si 251.611†	470.7	-407.5	-6.3676 µg/L	-6.3676 ppb	15:25:36
3	Sn 189.927†	20.5	26.1	1.8853 µg/L	1.8853 ppb	15:25:36
3	Ti 334.940†	20741.8	22959.1	-4.1747 µg/L	-4.1747 ppb	15:25:16
3	Tl 190.801†	-132.1	-34.8	-4.2279 µg/L	-4.2279 ppb	15:25:36
3	U 409.014†	-51.7	224.3	-7.3537 µg/L	-7.3537 ppb	15:25:16
3	V 292.402†	4139.6	4449.0	3.0936 µg/L	3.0936 ppb	15:25:36
3	Zn 213.857†	4013.6	4089.5	8.8407 µg/L	8.8407 ppb	15:25:36

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1535457.5	87.487	%	0.7400				0.85%
Sc RADIAL	135204.5	91.5	%	0.48				0.52%
Y 371.029	915097.0	86.002	%	0.6831				0.79%
Ag 328.068†	3434.1	0.1903	µg/L	1.08102	0.1903	ppb	1.08102	567.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2482481.1	511570	µg/L	2282.6	511570	ppb	2282.6	0.45%
QC value within limits for Al 396.153Radial Recovery = 102.31%								
As 188.979†	-92.8	10.903	µg/L	1.0235	10.903	ppb	1.0235	9.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	287.1	4.6682	µg/L	1.40228	4.6682	ppb	1.40228	30.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	651.2	0.3687	µg/L	0.09087	0.3687	ppb	0.09087	24.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-360.1	-0.1047	µg/L	0.04792	-0.1047	ppb	0.04792	45.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8119956.8	488560	µg/L	3319.6	488560	ppb	3319.6	0.68%
QC value within limits for Ca 317.933Radial Recovery = 97.71%								
Cd 226.502†	2708.9	-1.7127	µg/L	0.33534	-1.7127	ppb	0.33534	19.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	267.6	-6.4542	µg/L	0.19046	-6.4542	ppb	0.19046	2.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              42.8      1.0753 µg/L       0.10833      1.0753 ppb        0.10833  10.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9059.3      3.2302 µg/L       0.77242      3.2302 ppb        0.77242  23.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2870714.4      193170 µg/L        1246.1      193170 ppb         1246.1   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.58%
K 766.490 Radial†        317.7     -112.85 µg/L        23.545     -112.85 ppb         23.545  20.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1196471.7      490650 µg/L        3614.1      490650 ppb         3614.1   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.13%
Mn 257.610†           17257.2      3.0950 µg/L       0.51432      3.0950 ppb        0.51432  16.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -576.0     -1.7111 µg/L       0.71323     -1.7111 ppb        0.71323  41.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       348.0      52.732 µg/L       10.0310      52.732 ppb        10.0310  19.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              273.7      3.4426 µg/L       0.40513      3.4426 ppb        0.40513  11.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               197.6      29.660 µg/L        3.5371      29.660 ppb         3.5371  11.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -493.2     -4.7152 µg/L       2.43592     -4.7152 ppb        2.43592  51.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          83.3      68.110 µg/L        5.0065      68.110 ppb         5.0065   7.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               60.1      1.7733 µg/L       0.66034      1.7733 ppb        0.66034  37.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -193.2       -10.3 µg/L          9.13       -10.3 ppb           9.13  88.75%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     80.1      9.0540 µg/L       4.01594      9.0540 ppb        4.01594  44.36%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -439.5     -6.8859 µg/L       0.46433     -6.8859 ppb        0.46433   6.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               36.0      2.5702 µg/L       0.94345      2.5702 ppb        0.94345  36.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1697.0      0.0907 µg/L       0.10724      0.0907 ppb        0.10724 118.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           22482.5     -4.7185 µg/L       0.78801     -4.7185 ppb        0.78801  16.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -66.4     -8.4799 µg/L       3.68229     -8.4799 ppb        3.68229  43.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               175.4     -10.468 µg/L        3.0181     -10.468 ppb         3.0181  28.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4394.2      2.7499 µg/L       0.37684      2.7499 ppb        0.37684  13.70%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4073.5      8.7011 µg/L       0.35156      8.7011 ppb        0.35156   4.04%
   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: 3/30/2010 15:25:44
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	128969.8	128969.8	87.2	%			15:26:16
1	Al 396.153Radial†	2268643.5	2600464.8	535860	µg/L	535860	ppb	15:26:14
1	Ca 317.933Radial†	7418203.8	8502317.5	511560	µg/L	511560	ppb	15:26:14
1	Fe 238.204 Radial†	2626582.9	3010544.4	202580	µg/L	202580	ppb	15:26:14
1	K 766.490 Radial†	13932.0	14656.5	5776.6	µg/L	5776.6	ppb	15:26:16
1	Mg 279.077 IEC†	1076571.1	1233836.2	505980	µg/L	505980	ppb	15:26:16
1	Na 589.592 Radial†	33219.3	36870.5	5593.3	µg/L	5593.3	ppb	15:26:16
1	Sr 421.552†	207277.5	237810.7	544.59	µg/L	544.59	ppb	15:26:16
1	Sc 361.383	1516196.2	1516196.2	86.389	%			15:26:44
1	Y 371.029	903728.7	903728.7	84.933	%			15:26:44
1	Ag 328.068†	63350.6	69884.6	270.36	µg/L	270.36	ppb	15:26:44
1	As 188.979†	1221.1	1431.2	550.90	µg/L	550.90	ppb	15:26:46
1	B 249.677†	30854.5	32485.4	528.04	µg/L	528.04	ppb	15:26:44
1	Ba 233.527†	100374.9	116351.4	504.51	µg/L	504.51	ppb	15:26:44
1	Be 313.107†	710674.5	823428.9	247.28	µg/L	247.28	ppb	15:26:44
1	Cd 226.502†	62827.3	72836.0	479.01	µg/L	479.01	ppb	15:26:44
1	Co 228.616†	29526.2	34350.5	454.56	µg/L	454.56	ppb	15:26:46
1	Cr 267.716†	51013.6	58872.4	496.64	µg/L	496.64	ppb	15:26:46
1	Cu 324.752†	105945.5	119848.6	548.90	µg/L	548.90	ppb	15:26:44
1	Mn 257.610†	328467.2	380042.5	487.37	µg/L	487.37	ppb	15:26:44
1	Mo 202.031†	13247.4	15369.3	506.32	µg/L	506.32	ppb	15:26:46
1	Ni 231.604†	32031.3	37155.8	467.34	µg/L	467.34	ppb	15:26:46
1	P 214.914†	9671.9	11190.7	2643.8	µg/L	2643.8	ppb	15:26:46
1	Pb 220.353†	6483.0	7407.4	481.68	µg/L	481.68	ppb	15:26:46
1	S 181.975 Axial†	3019.3	3407.3	2797.2	µg/L	2797.2	ppb	15:26:46
1	Sb 206.836†	3474.0	3943.3	512.08	µg/L	512.08	ppb	15:26:46
1	Se 196.026†	5295.0	6115.7	2520	µg/L	2520	ppb	15:26:46
1	SiO2†	92064.6	104816.5	11193	µg/L	11193	ppb	15:26:44
1	Si 251.611†	280816.9	324111.7	5236.4	µg/L	5236.4	ppb	15:26:44
1	Sn 189.927†	6181.1	7157.5	497.35	µg/L	497.35	ppb	15:26:46
1	Ti 334.940†	466691.3	539334.3	512.06	µg/L	512.06	ppb	15:26:44
1	Tl 190.801†	2873.7	3443.5	471.18	µg/L	471.18	ppb	15:26:46
1	U 409.014†	7010.7	8399.0	535.66	µg/L	535.66	ppb	15:26:44
1	V 292.402†	87819.1	101345.4	523.74	µg/L	523.74	ppb	15:26:44
1	Zn 213.857†	72585.4	83496.9	497.27	µg/L	497.27	ppb	15:26:44
2	Sc RADIAL	138750.1	138750.1	93.9	%			15:26:21
2	Al 396.153Radial†	2248527.6	2395732.2	493670	µg/L	493670	ppb	15:26:19
2	Ca 317.933Radial†	7355600.1	7836246.5	471490	µg/L	471490	ppb	15:26:19
2	Fe 238.204 Radial†	2604562.2	2774861.9	186720	µg/L	186720	ppb	15:26:19
2	K 766.490 Radial†	14271.2	13892.3	5480.7	µg/L	5480.7	ppb	15:26:21
2	Mg 279.077 IEC†	1111258.4	1183809.4	485470	µg/L	485470	ppb	15:26:21
2	Na 589.592 Radial†	34192.5	35223.4	5343.5	µg/L	5343.5	ppb	15:26:21
2	Sr 421.552†	211492.1	225553.7	516.63	µg/L	516.63	ppb	15:26:21
2	Sc 361.383	1518506.0	1518506.0	86.521	%			15:26:49
2	Y 371.029	904980.6	904980.6	85.051	%			15:26:49
2	Ag 328.068†	63288.3	69701.0	270.75	µg/L	270.75	ppb	15:26:49
2	As 188.979†	1123.1	1315.7	507.01	µg/L	507.01	ppb	15:26:51
2	B 249.677†	31121.0	32739.1	532.19	µg/L	532.19	ppb	15:26:49
2	Ba 233.527†	100793.3	116658.3	506.05	µg/L	506.05	ppb	15:26:49
2	Be 313.107†	712144.3	823876.4	247.41	µg/L	247.41	ppb	15:26:49
2	Cd 226.502†	63049.4	72982.0	481.68	µg/L	481.68	ppb	15:26:49
2	Co 228.616†	29214.5	33938.3	449.81	µg/L	449.81	ppb	15:26:51
2	Cr 267.716†	50659.7	58373.5	492.13	µg/L	492.13	ppb	15:26:51
2	Cu 324.752†	106123.6	119867.9	546.12	µg/L	546.12	ppb	15:26:49
2	Mn 257.610†	329580.6	380751.0	489.17	µg/L	489.17	ppb	15:26:49
2	Mo 202.031†	13269.6	15371.7	505.39	µg/L	505.39	ppb	15:26:51
2	Ni 231.604†	31669.3	36681.0	461.36	µg/L	461.36	ppb	15:26:51
2	P 214.914†	9695.4	11200.9	2647.7	µg/L	2647.7	ppb	15:26:51
2	Pb 220.353†	6408.2	7309.6	473.58	µg/L	473.58	ppb	15:26:51

2	S 181.975 Axial†	3032.1	3416.8	2805.0	µg/L	2805.0 ppb	15:26:51
2	Sb 206.836†	3497.1	3963.8	515.32	µg/L	515.32 ppb	15:26:51
2	Se 196.026†	5153.5	5942.8	2440	µg/L	2440 ppb	15:26:51
2	SiO2†	92148.0	104750.8	11186	µg/L	11186 ppb	15:26:49
2	Si 251.611†	282053.1	325046.0	5251.5	µg/L	5251.5 ppb	15:26:49
2	Sn 189.927†	6186.0	7152.3	496.98	µg/L	496.98 ppb	15:26:51
2	Ti 334.940†	465598.1	537249.0	510.59	µg/L	510.59 ppb	15:26:49
2	Tl 190.801†	2897.1	3465.6	474.15	µg/L	474.15 ppb	15:26:51
2	U 409.014†	7068.1	8453.0	540.87	µg/L	540.87 ppb	15:26:49
2	V 292.402†	87740.2	101099.6	524.10	µg/L	524.10 ppb	15:26:49
2	Zn 213.857†	72899.1	83731.7	500.12	µg/L	500.12 ppb	15:26:49
3	Sc RADIAL	136915.4	136915.4	92.6	%		15:26:25
3	Al 396.153Radial†	2257454.6	2437473.9	502270	µg/L	502270 ppb	15:26:23
3	Ca 317.933Radial†	7359855.8	7945860.1	478080	µg/L	478080 ppb	15:26:23
3	Fe 238.204 Radial†	2604669.3	2812163.8	189230	µg/L	189230 ppb	15:26:23
3	K 766.490 Radial†	14264.5	14088.8	5558.0	µg/L	5558.0 ppb	15:26:25
3	Mg 279.077 IEC†	1106854.3	1194920.1	490030	µg/L	490030 ppb	15:26:25
3	Na 589.592 Radial†	34167.4	35684.5	5413.4	µg/L	5413.4 ppb	15:26:25
3	Sr 421.552†	210799.8	227825.7	521.82	µg/L	521.82 ppb	15:26:25
3	Sc 361.383	1532637.0	1532637.0	87.326	%		15:26:54
3	Y 371.029	912980.1	912980.1	85.803	%		15:26:54
3	Ag 328.068†	63997.3	69838.5	271.10	µg/L	271.10 ppb	15:26:54
3	As 188.979†	1202.6	1394.9	535.14	µg/L	535.14 ppb	15:26:56
3	B 249.677†	30994.7	32262.8	524.43	µg/L	524.43 ppb	15:26:54
3	Ba 233.527†	101425.8	116308.4	504.49	µg/L	504.49 ppb	15:26:54
3	Be 313.107†	717134.4	822001.9	246.85	µg/L	246.85 ppb	15:26:54
3	Cd 226.502†	63386.1	72695.7	479.45	µg/L	479.45 ppb	15:26:54
3	Co 228.616†	29425.6	33868.8	448.74	µg/L	448.74 ppb	15:26:56
3	Cr 267.716†	50967.1	58185.7	490.58	µg/L	490.58 ppb	15:26:56
3	Cu 324.752†	106853.0	119572.3	545.36	µg/L	545.36 ppb	15:26:54
3	Mn 257.610†	331501.6	379438.8	487.23	µg/L	487.23 ppb	15:26:54
3	Mo 202.031†	13182.9	15131.0	497.92	µg/L	497.92 ppb	15:26:56
3	Ni 231.604†	31816.9	36512.6	459.25	µg/L	459.25 ppb	15:26:56
3	P 214.914†	9750.3	11160.5	2638.3	µg/L	2638.3 ppb	15:26:56
3	Pb 220.353†	6296.3	7113.2	461.99	µg/L	461.99 ppb	15:26:56
3	S 181.975 Axial†	3014.7	3364.5	2762.1	µg/L	2762.1 ppb	15:26:56
3	Sb 206.836†	3428.2	3847.7	499.92	µg/L	499.92 ppb	15:26:56
3	Se 196.026†	5199.2	5940.2	2440	µg/L	2440 ppb	15:26:56
3	SiO2†	93000.5	104745.0	11185	µg/L	11185 ppb	15:26:54
3	Si 251.611†	283786.9	324025.9	5235.1	µg/L	5235.1 ppb	15:26:54
3	Sn 189.927†	6228.6	7135.1	495.78	µg/L	495.78 ppb	15:26:56
3	Ti 334.940†	468402.8	535499.2	508.64	µg/L	508.64 ppb	15:26:54
3	Tl 190.801†	2875.8	3410.2	466.69	µg/L	466.69 ppb	15:26:56
3	U 409.014†	7143.9	8464.4	541.20	µg/L	541.20 ppb	15:26:54
3	V 292.402†	88322.9	100831.9	522.33	µg/L	522.33 ppb	15:26:54
3	Zn 213.857†	73408.9	83538.6	498.75	µg/L	498.75 ppb	15:26:54

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1522446.4	86.745	%	0.5071				0.58%
Sc RADIAL	134878.4	91.2	%	3.52				3.85%
Y 371.029	907229.8	85.262	%	0.4717				0.55%
Ag 328.068†	69808.1	270.74	µg/L	0.366	270.74	ppb	0.366	0.14%
QC value within limits for Ag 328.068 Recovery = 108.29%								
Al 396.153Radial†	2477890.3	510600	µg/L	22293.7	510600	ppb	22293.7	4.37%
QC value within limits for Al 396.153Radial Recovery = 102.12%								
As 188.979†	1380.6	531.02	µg/L	22.233	531.02	ppb	22.233	4.19%
QC value within limits for As 188.979 Recovery = 106.20%								
B 249.677†	32495.8	528.22	µg/L	3.885	528.22	ppb	3.885	0.74%
QC value within limits for B 249.677 Recovery = 105.64%								
Ba 233.527†	116439.4	505.02	µg/L	0.894	505.02	ppb	0.894	0.18%
QC value within limits for Ba 233.527 Recovery = 101.00%								
Be 313.107†	823102.4	247.18	µg/L	0.294	247.18	ppb	0.294	0.12%
QC value within limits for Be 313.107 Recovery = 98.87%								
Ca 317.933Radial†	8094808.1	487050	µg/L	21488.5	487050	ppb	21488.5	4.41%
QC value within limits for Ca 317.933Radial Recovery = 97.41%								
Cd 226.502†	72837.9	480.04	µg/L	1.431	480.04	ppb	1.431	0.30%
QC value within limits for Cd 226.502 Recovery = 96.01%								
Co 228.616†	34052.5	451.03	µg/L	3.097	451.03	ppb	3.097	0.69%

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   QC value within limits for Co 228.616  Recovery = 90.21%
Cr 267.716†            58477.2      493.12 µg/L         3.147      493.12 ppb          3.147   0.64%
   QC value within limits for Cr 267.716  Recovery = 98.62%
Cu 324.752†           119762.9      546.80 µg/L         1.864      546.80 ppb          1.864   0.34%
   QC value within limits for Cu 324.752  Recovery = 109.36%
Fe 238.204 Radial†   2865856.7      192840 µg/L        8524.4      192840 ppb         8524.4   4.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.42%
K 766.490 Radial†      14212.5      5605.1 µg/L        153.49      5605.1 ppb         153.49   2.74%
   QC value within limits for K 766.490 Radial  Recovery = 112.10%
Mg 279.077 IEC†      1204188.6      493830 µg/L       10769.0      493830 ppb        10769.0   2.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.77%
Mn 257.610†           380077.4      487.92 µg/L         1.083      487.92 ppb          1.083   0.22%
   QC value within limits for Mn 257.610  Recovery = 97.58%
Mo 202.031†            15290.7      503.21 µg/L         4.607      503.21 ppb          4.607   0.92%
   QC value within limits for Mo 202.031  Recovery = 100.64%
Na 589.592 Radial†     35926.2      5450.1 µg/L        128.88      5450.1 ppb         128.88   2.36%
   QC value within limits for Na 589.592 Radial  Recovery = 109.00%
Ni 231.604†            36783.1      462.65 µg/L         4.196      462.65 ppb          4.196   0.91%
   QC value within limits for Ni 231.604  Recovery = 92.53%
P 214.914†             11184.0      2643.3 µg/L          4.70      2643.3 ppb           4.70   0.18%
   QC value within limits for P 214.914  Recovery = 105.73%
Pb 220.353†             7276.7      472.42 µg/L         9.899      472.42 ppb          9.899   2.10%
   QC value within limits for Pb 220.353  Recovery = 94.48%
S 181.975 Axial†        3396.2      2788.1 µg/L         22.86      2788.1 ppb          22.86   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 111.52%
Sb 206.836†             3918.3      509.11 µg/L         8.121      509.11 ppb          8.121   1.60%
   QC value within limits for Sb 206.836  Recovery = 101.82%
Se 196.026†             5999.6        2470 µg/L          43.2        2470 ppb           43.2   1.75%
   QC value within limits for Se 196.026  Recovery = 98.76%
SiO2†                 104770.8       11188 µg/L           4.2       11188 ppb            4.2   0.04%
   QC value within limits for SiO2  Recovery = 104.61%
Si 251.611†           324394.5      5241.0 µg/L          9.12      5241.0 ppb           9.12   0.17%
   QC value within limits for Si 251.611  Recovery = 104.82%
Sn 189.927†             7148.3      496.70 µg/L         0.817      496.70 ppb          0.817   0.16%
   QC value within limits for Sn 189.927  Recovery = 99.34%
Sr 421.552†           230396.7      527.68 µg/L        14.874      527.68 ppb         14.874   2.82%
   QC value within limits for Sr 421.552  Recovery = 105.54%
Ti 334.940†           537360.8      510.43 µg/L         1.713      510.43 ppb          1.713   0.34%
   QC value within limits for Ti 334.940  Recovery = 102.09%
Tl 190.801†             3439.8      470.67 µg/L         3.758      470.67 ppb          3.758   0.80%
   QC value within limits for Tl 190.801  Recovery = 94.13%
U 409.014†              8438.8      539.25 µg/L         3.108      539.25 ppb          3.108   0.58%
   QC value within limits for U 409.014  Recovery = 107.85%
V 292.402†            101092.3      523.39 µg/L         0.936      523.39 ppb          0.936   0.18%
   QC value within limits for V 292.402  Recovery = 104.68%
Zn 213.857†            83589.1      498.71 µg/L         1.427      498.71 ppb          1.427   0.29%
   QC value within limits for Zn 213.857  Recovery = 99.74%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/30/2010 15:27:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136437.1	136437.1	92.3	%			15:27:35
1	Al 396.153Radial†	2201698.9	2385608.2	491610	µg/L	491610	ppb	15:27:33
1	Ca 317.933Radial†	7214807.5	7816561.1	470300	µg/L	470300	ppb	15:27:33
1	Fe 238.204 Radial†	6118140.6	6628877.5	446050	µg/L	446050	ppb	15:27:33
1	K 766.490 Radial†	1829.8	669.7	-38.783	µg/L	-38.783	ppb	15:27:35
1	Mg 279.077 IEC†	1054744.4	1142649.0	468350	µg/L	468350	ppb	15:27:33
1	Na 589.592 Radial†	3004311.9	3253971.6	494110	µg/L	494110	ppb	15:27:33
1	Sr 421.552†	4865.0	5492.9	8.9901	µg/L	8.9901	ppb	15:27:35
1	Sc 361.383	1479324.6	1479324.6	84.288	%			15:27:49
1	Y 371.029	877883.5	877883.5	82.504	%			15:27:49
1	Ag 328.068†	2175.4	-866.2	2.3746	µg/L	2.3746	ppb	15:27:49
1	As 188.979†	-230.5	-255.8	10.757	µg/L	10.757	ppb	15:28:09
1	B 249.677†	4044.4	1567.9	25.520	µg/L	25.520	ppb	15:27:49
1	Ba 233.527†	614.2	890.8	-1.8194	µg/L	-1.8194	ppb	15:28:09
1	Be 313.107†	-14328.5	-16213.8	0.0899	µg/L	0.0899	ppb	15:27:49
1	Cd 226.502†	5667.7	6834.2	0.0189	µg/L	0.0189	ppb	15:27:49
1	Co 228.616†	648.7	942.0	-10.524	µg/L	-10.524	ppb	15:28:09
1	Cr 267.716†	423.8	324.2	-0.4000	µg/L	-0.4000	ppb	15:28:09
1	Cu 324.752†	-15616.5	-21316.4	1.3548	µg/L	1.3548	ppb	15:27:49
1	Mn 257.610†	16797.3	19752.8	6.6460	µg/L	6.6460	ppb	15:27:49
1	Mo 202.031†	-897.8	-1030.4	-6.5604	µg/L	-6.5604	ppb	15:27:49
1	Ni 231.604†	211.2	328.5	4.1319	µg/L	4.1319	ppb	15:28:09
1	P 214.914†	924.8	1092.2	67.436	µg/L	67.436	ppb	15:28:09
1	Pb 220.353†	-15.3	-115.1	-3.2134	µg/L	-3.2134	ppb	15:28:09
1	S 181.975 Axial†	174.3	119.1	97.381	µg/L	97.381	ppb	15:28:09
1	Sb 206.836†	113.6	56.7	-1.8998	µg/L	-1.8998	ppb	15:28:09
1	Se 196.026†	-352.5	-431.8	-2.26	µg/L	-2.26	ppb	15:28:09
1	SiO2†	1807.3	391.1	42.666	µg/L	42.666	ppb	15:28:09
1	Si 251.611†	-1781.3	-3062.0	-49.173	µg/L	-49.173	ppb	15:27:49
1	Sn 189.927†	87.2	106.0	7.4350	µg/L	7.4350	ppb	15:28:09
1	Ti 334.940†	24073.9	27675.7	-4.9000	µg/L	-4.9000	ppb	15:27:49
1	Tl 190.801†	-177.4	-93.4	-11.930	µg/L	-11.930	ppb	15:28:09
1	U 409.014†	220380.3	261743.9	16316	µg/L	16316	ppb	15:27:49
1	V 292.402†	7565.3	8665.6	9.6187	µg/L	9.6187	ppb	15:27:49
1	Zn 213.857†	7862.1	8803.1	11.198	µg/L	11.198	ppb	15:28:09
2	Sc RADIAL	133662.6	133662.6	90.4	%			15:27:40
2	Al 396.153Radial†	2208386.1	2442521.6	503340	µg/L	503340	ppb	15:27:38
2	Ca 317.933Radial†	7235360.6	8001557.4	481430	µg/L	481430	ppb	15:27:38
2	Fe 238.204 Radial†	6131145.7	6780861.1	456280	µg/L	456280	ppb	15:27:38
2	K 766.490 Radial†	1926.9	818.3	14.893	µg/L	14.893	ppb	15:27:40
2	Mg 279.077 IEC†	1057709.3	1169649.9	479420	µg/L	479420	ppb	15:27:38
2	Na 589.592 Radial†	3012824.9	3330955.4	505800	µg/L	505800	ppb	15:27:38
2	Sr 421.552†	4780.7	5509.1	8.9403	µg/L	8.9403	ppb	15:27:40
2	Sc 361.383	1491945.8	1491945.8	85.007	%			15:28:12
2	Y 371.029	884642.3	884642.3	83.140	%			15:28:12
2	Ag 328.068†	2189.1	-871.9	1.9264	µg/L	1.9264	ppb	15:28:12
2	As 188.979†	-239.5	-264.0	10.187	µg/L	10.187	ppb	15:28:32
2	B 249.677†	4005.3	1481.3	24.110	µg/L	24.110	ppb	15:28:12
2	Ba 233.527†	580.5	845.0	-2.1494	µg/L	-2.1494	ppb	15:28:32
2	Be 313.107†	-14594.1	-16382.5	0.0185	µg/L	0.0185	ppb	15:28:12
2	Cd 226.502†	5774.9	6903.5	-0.5813	µg/L	-0.5813	ppb	15:28:12
2	Co 228.616†	624.1	906.6	-11.537	µg/L	-11.537	ppb	15:28:32
2	Cr 267.716†	416.0	310.8	-0.2391	µg/L	-0.2391	ppb	15:28:32
2	Cu 324.752†	-15844.3	-21427.7	2.6175	µg/L	2.6175	ppb	15:28:12
2	Mn 257.610†	16681.9	19448.5	5.7732	µg/L	5.7732	ppb	15:28:12
2	Mo 202.031†	-885.2	-1006.6	-5.1979	µg/L	-5.1979	ppb	15:28:12
2	Ni 231.604†	194.7	306.9	3.8599	µg/L	3.8599	ppb	15:28:32
2	P 214.914†	903.2	1057.5	54.786	µg/L	54.786	ppb	15:28:32
2	Pb 220.353†	-9.7	-108.4	-2.3505	µg/L	-2.3505	ppb	15:28:32

2	S 181.975 Axial†	162.6	103.6	84.638 µg/L	84.638 ppb		15:28:32
2	Sb 206.836†	103.8	44.0	-3.7528 µg/L	-3.7528 ppb		15:28:32
2	Se 196.026†	-363.4	-441.0	-2.47 µg/L	-2.47 ppb		15:28:32
2	SiO2†	1787.0	349.0	38.154 µg/L	38.154 ppb		15:28:32
2	Si 251.611†	-1775.4	-3037.1	-48.774 µg/L	-48.774 ppb		15:28:12
2	Sn 189.927†	75.0	90.8	6.3853 µg/L	6.3853 ppb		15:28:32
2	Ti 334.940†	25851.7	29525.6	-3.6306 µg/L	-3.6306 ppb		15:28:12
2	Tl 190.801†	-199.4	-117.5	-15.139 µg/L	-15.139 ppb		15:28:32
2	U 409.014†	221329.4	260648.6	16245 µg/L	16245 ppb		15:28:12
2	V 292.402†	7749.2	8806.1	9.2452 µg/L	9.2452 ppb		15:28:12
2	Zn 213.857†	7893.7	8761.3	9.9501 µg/L	9.9501 ppb		15:28:32
3	Sc RADIAL	132134.1	132134.1	89.4 %			15:27:44
3	Al 396.153Radial†	2215858.4	2479134.6	510880 µg/L	510880 ppb		15:27:42
3	Ca 317.933Radial†	7272268.0	8135414.9	489490 µg/L	489490 ppb		15:27:42
3	Fe 238.204 Radial†	6164754.1	6896900.9	464080 µg/L	464080 ppb		15:27:42
3	K 766.490 Radial†	1800.0	701.0	-38.551 µg/L	-38.551 ppb		15:27:44
3	Mg 279.077 IEC†	1064515.1	1190796.0	488090 µg/L	488090 ppb		15:27:42
3	Na 589.592 Radial†	3025200.4	3383345.7	513750 µg/L	513750 ppb		15:27:42
3	Sr 421.552†	4781.2	5570.8	9.0197 µg/L	9.0197 ppb		15:27:44
3	Sc 361.383	1476102.9	1476102.9	84.105 %			15:28:34
3	Y 371.029	876472.2	876472.2	82.372 %			15:28:34
3	Ag 328.068†	1850.6	-1246.7	0.2207 µg/L	0.2207 ppb		15:28:34
3	As 188.979†	-230.9	-256.9	14.443 µg/L	14.443 ppb		15:28:55
3	B 249.677†	3692.4	1159.9	18.868 µg/L	18.868 ppb		15:28:34
3	Ba 233.527†	608.5	885.6	-2.0717 µg/L	-2.0717 ppb		15:28:55
3	Be 313.107†	-14186.1	-16081.6	0.1172 µg/L	0.1172 ppb		15:28:34
3	Cd 226.502†	5641.6	6817.9	-1.9905 µg/L	-1.9905 ppb		15:28:34
3	Co 228.616†	619.3	908.7	-11.915 µg/L	-11.915 ppb		15:28:55
3	Cr 267.716†	455.9	363.5	0.3478 µg/L	0.3478 ppb		15:28:55
3	Cu 324.752†	-15453.9	-21163.5	5.1254 µg/L	5.1254 ppb		15:28:34
3	Mn 257.610†	16497.8	19440.3	5.3978 µg/L	5.3978 ppb		15:28:34
3	Mo 202.031†	-841.4	-965.6	-3.4268 µg/L	-3.4268 ppb		15:28:34
3	Ni 231.604†	143.2	248.2	3.1217 µg/L	3.1217 ppb		15:28:55
3	P 214.914†	894.1	1058.1	51.284 µg/L	51.284 ppb		15:28:55
3	Pb 220.353†	-28.9	-131.3	-3.5614 µg/L	-3.5614 ppb		15:28:55
3	S 181.975 Axial†	161.0	103.7	84.779 µg/L	84.779 ppb		15:28:55
3	Sb 206.836†	120.2	64.8	-1.1601 µg/L	-1.1601 ppb		15:28:55
3	Se 196.026†	-381.7	-467.4	-10.3 µg/L	-10.3 ppb		15:28:55
3	SiO2†	1817.9	408.3	44.447 µg/L	44.447 ppb		15:28:55
3	Si 251.611†	-1958.8	-3277.6	-52.691 µg/L	-52.691 ppb		15:28:34
3	Sn 189.927†	86.5	105.4	7.3929 µg/L	7.3929 ppb		15:28:55
3	Ti 334.940†	24067.1	27730.1	-5.9375 µg/L	-5.9375 ppb		15:28:34
3	Tl 190.801†	-187.6	-105.9	-13.606 µg/L	-13.606 ppb		15:28:55
3	U 409.014†	219352.6	261092.7	16272 µg/L	16272 ppb		15:28:34
3	V 292.402†	7743.9	8897.6	8.9429 µg/L	8.9429 ppb		15:28:34
3	Zn 213.857†	7836.5	8793.0	9.3727 µg/L	9.3727 ppb		15:28:55

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1482457.8	84.467	%	0.4771				0.56%
Sc RADIAL	134077.9	90.7	%	1.48				1.63%
Y 371.029	879666.0	82.672	%	0.4104				0.50%
Ag 328.068†	-995.0	1.5072	µg/L	1.13650	1.5072	ppb	1.13650	75.40%
Al 396.153Radial†	2435754.8	501940	µg/L	9711.9	501940	ppb	9711.9	1.93%
QC value within limits for Al 396.153Radial Recovery = 100.39%								
As 188.979†	-258.9	11.796	µg/L	2.3107	11.796	ppb	2.3107	19.59%
B 249.677†	1403.1	22.833	µg/L	3.5049	22.833	ppb	3.5049	15.35%
Ba 233.527†	873.8	-2.0135	µg/L	0.17249	-2.0135	ppb	0.17249	8.57%
Be 313.107†	-16226.0	0.0752	µg/L	0.05096	0.0752	ppb	0.05096	67.76%
Ca 317.933Radial†	7984511.1	480410	µg/L	9633.4	480410	ppb	9633.4	2.01%
QC value within limits for Ca 317.933Radial Recovery = 96.08%								
Cd 226.502†	6851.9	-0.8510	µg/L	1.03148	-0.8510	ppb	1.03148	121.21%
Co 228.616†	919.1	-11.326	µg/L	0.7193	-11.326	ppb	0.7193	6.35%
Cr 267.716†	332.8	-0.0971	µg/L	0.39360	-0.0971	ppb	0.39360	405.29%
Cu 324.752†	-21302.5	3.0326	µg/L	1.91926	3.0326	ppb	1.91926	63.29%
Fe 238.204 Radial†	6768879.8	455470	µg/L	9044.5	455470	ppb	9044.5	1.99%
QC value within limits for Fe 238.204 Radial Recovery = 91.09%								
K 766.490 Radial†	729.7	-20.814	µg/L	30.9231	-20.814	ppb	30.9231	148.57%
Mg 279.077 IEC†	1167698.3	478620	µg/L	9892.0	478620	ppb	9892.0	2.07%

QC value within limits for Mg 279.077 IEC Recovery = 95.72%

Mn 257.610†	19547.2	5.9390 µg/L	0.64043	5.9390 ppb	0.64043	10.78%
Mo 202.031†	-1000.9	-5.0617 µg/L	1.57123	-5.0617 ppb	1.57123	31.04%
Na 589.592 Radial†	3322757.6	504550 µg/L	9881.5	504550 ppb	9881.5	1.96%

QC value within limits for Na 589.592 Radial Recovery = 100.91%

Ni 231.604†	294.5	3.7045 µg/L	0.52272	3.7045 ppb	0.52272	14.11%
P 214.914†	1069.3	57.835 µg/L	8.4971	57.835 ppb	8.4971	14.69%
Pb 220.353†	-118.3	-3.0417 µg/L	0.62343	-3.0417 ppb	0.62343	20.50%
S 181.975 Axial†	108.8	88.932 µg/L	7.3171	88.932 ppb	7.3171	8.23%
Sb 206.836†	55.2	-2.2709 µg/L	1.33559	-2.2709 ppb	1.33559	58.81%
Se 196.026†	-446.7	-5.01 µg/L	4.588	-5.01 ppb	4.588	91.56%
SiO2†	382.8	41.756 µg/L	3.2436	41.756 ppb	3.2436	7.77%
Si 251.611†	-3125.6	-50.213 µg/L	2.1553	-50.213 ppb	2.1553	4.29%
Sn 189.927†	100.8	7.0710 µg/L	0.59428	7.0710 ppb	0.59428	8.40%
Sr 421.552†	5524.3	8.9834 µg/L	0.04013	8.9834 ppb	0.04013	0.45%
Ti 334.940†	28310.5	-4.8227 µg/L	1.15537	-4.8227 ppb	1.15537	23.96%
Tl 190.801†	-105.6	-13.558 µg/L	1.6047	-13.558 ppb	1.6047	11.84%
U 409.014†	261161.7	16278 µg/L	35.6	16278 ppb	35.6	0.22%

QC value within limits for U 409.014 Recovery = 108.52%

V 292.402†	8789.8	9.2689 µg/L	0.33852	9.2689 ppb	0.33852	3.65%
Zn 213.857†	8785.8	10.174 µg/L	0.9330	10.174 ppb	0.9330	9.17%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/30/2010 15:29:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144237.0	144237.0	97.6	%			15:29:37
1	Al 396.153Radial†	2225.8	2344.2	31.470	µg/L	31.470	ppb	15:29:39
1	Ca 317.933Radial†	1195.6	527.4	31.732	µg/L	31.732	ppb	15:29:39
1	Fe 238.204 Radial†	-828.0	-989.3	-66.568	µg/L	-66.568	ppb	15:29:39
1	K 766.490 Radial†	705257.6	721512.5	296950	µg/L	296950	ppb	15:29:37
1	Mg 279.077 IEC†	-489.5	-670.5	-37.134	µg/L	-37.134	ppb	15:29:39
1	Na 589.592 Radial†	5220.5	4143.9	365.14	µg/L	365.14	ppb	15:29:39
1	Sr 421.552†	4186503.5	4291009.0	9898.7	µg/L	9898.7	ppb	15:29:35
1	Sc 361.383	1663697.1	1663697.1	94.793	%			15:30:01
1	Y 371.029	981892.5	981892.5	92.279	%			15:30:01
1	Ag 328.068†	-23773.7	-28526.5	5.2873	µg/L	5.2873	ppb	15:30:03
1	As 188.979†	27146.9	28655.7	10253	µg/L	10253	ppb	15:30:03
1	B 249.677†	294226.0	307156.3	4975.3	µg/L	4975.3	ppb	15:30:01
1	Ba 233.527†	3027478.9	3193928.4	13916	µg/L	13916	ppb	15:30:01
1	Be 313.107†	8944351.3	9436414.6	2831.8	µg/L	2831.8	ppb	15:29:57
1	Cd 226.502†	1332439.6	1405735.3	9656.4	µg/L	9656.4	ppb	15:30:01
1	Co 228.616†	659087.3	695460.8	9423.0	µg/L	9423.0	ppb	15:30:01
1	Cr 267.716†	2697213.0	2845181.7	23977	µg/L	23977	ppb	15:30:01
1	Cu 324.752†	4547393.6	4794374.9	20208	µg/L	20208	ppb	15:30:01
1	Mn 257.610†	6649756.4	7014825.5	9376.1	µg/L	9376.1	ppb	15:30:01
1	Mo 202.031†	289733.3	305681.9	9726.8	µg/L	9726.8	ppb	15:30:03
1	Ni 231.604†	734586.5	775012.3	9747.9	µg/L	9747.9	ppb	15:30:01
1	P 214.914†	60333.5	63642.4	14943	µg/L	14943	ppb	15:30:03
1	Pb 220.353†	364788.7	384728.2	23587	µg/L	23587	ppb	15:30:03
1	S 181.975 Axial†	59471.6	62650.4	51439	µg/L	51439	ppb	15:30:03
1	Sb 206.836†	72079.2	75960.2	9771.1	µg/L	9771.1	ppb	15:30:03
1	Se 196.026†	22882.5	24125.7	9660	µg/L	9660	ppb	15:30:03
1	SiO2†	894874.0	942272.7	100390	µg/L	100390	ppb	15:30:01
1	Si 251.611†	2754729.3	2905086.9	46828	µg/L	46828	ppb	15:30:01
1	Sn 189.927†	134561.0	141954.4	9861.0	µg/L	9861.0	ppb	15:30:03
1	Ti 334.940†	9355396.9	9868366.1	9878.7	µg/L	9878.7	ppb	15:29:57
1	Tl 190.801†	66599.1	70374.2	9608.7	µg/L	9608.7	ppb	15:30:03
1	U 409.014†	-8124.9	-8287.4	91.396	µg/L	91.396	ppb	15:30:03
1	V 292.402†	1792814.5	1890976.9	10234	µg/L	10234	ppb	15:30:01
1	Zn 213.857†	2209060.9	2329871.3	14375	µg/L	14375	ppb	15:30:01
2	Sc RADIAL	143986.9	143986.9	97.4	%			15:29:43
2	Al 396.153Radial†	2195.1	2316.5	19.993	µg/L	19.993	ppb	15:29:45
2	Ca 317.933Radial†	1141.8	474.3	28.538	µg/L	28.538	ppb	15:29:45
2	Fe 238.204 Radial†	-802.9	-965.1	-64.938	µg/L	-64.938	ppb	15:29:45
2	K 766.490 Radial†	707310.9	724875.9	298330	µg/L	298330	ppb	15:29:43
2	Mg 279.077 IEC†	-481.5	-663.1	-31.044	µg/L	-31.044	ppb	15:29:45
2	Na 589.592 Radial†	5011.9	3939.1	332.81	µg/L	332.81	ppb	15:29:45
2	Sr 421.552†	4170441.9	4281970.6	9877.9	µg/L	9877.9	ppb	15:29:41
2	Sc 361.383	1652411.6	1652411.6	94.150	%			15:30:11
2	Y 371.029	975307.9	975307.9	91.660	%			15:30:11
2	Ag 328.068†	-23549.1	-28459.3	5.3021	µg/L	5.3021	ppb	15:30:13
2	As 188.979†	27298.6	29012.4	10378	µg/L	10378	ppb	15:30:13
2	B 249.677†	291433.3	306310.0	4961.5	µg/L	4961.5	ppb	15:30:11
2	Ba 233.527†	2999547.4	3186074.1	13882	µg/L	13882	ppb	15:30:11
2	Be 313.107†	9002117.0	9562212.2	2869.5	µg/L	2869.5	ppb	15:30:07
2	Cd 226.502†	1319189.5	1401262.0	9625.7	µg/L	9625.7	ppb	15:30:11
2	Co 228.616†	653056.4	693803.8	9400.6	µg/L	9400.6	ppb	15:30:11
2	Cr 267.716†	2673331.9	2839249.8	23927	µg/L	23927	ppb	15:30:11
2	Cu 324.752†	4508860.7	4786211.3	20173	µg/L	20173	ppb	15:30:11
2	Mn 257.610†	6592131.1	7001530.5	9358.4	µg/L	9358.4	ppb	15:30:11
2	Mo 202.031†	291456.6	309599.8	9851.4	µg/L	9851.4	ppb	15:30:13
2	Ni 231.604†	727344.3	772612.7	9717.7	µg/L	9717.7	ppb	15:30:11
2	P 214.914†	60767.2	64537.7	15157	µg/L	15157	ppb	15:30:13
2	Pb 220.353†	367598.0	390340.2	23931	µg/L	23931	ppb	15:30:13

2	S 181.975 Axial†	60050.6	63693.9	52295	µg/L	52295	ppb	15:30:13
2	Sb 206.836†	72605.5	77038.4	9915.2	µg/L	9915.2	ppb	15:30:13
2	Se 196.026†	23187.2	24614.2	9850	µg/L	9850	ppb	15:30:13
2	SiO2†	886511.8	939838.4	100120	µg/L	100120	ppb	15:30:11
2	Si 251.611†	2730380.4	2899072.8	46728	µg/L	46728	ppb	15:30:11
2	Sn 189.927†	135964.5	144414.7	10032	µg/L	10032	ppb	15:30:13
2	Ti 334.940†	9415705.5	9999826.1	10010	µg/L	10010	ppb	15:30:07
2	Tl 190.801†	67195.6	71487.6	9759.6	µg/L	9759.6	ppb	15:30:13
2	U 409.014†	-7767.0	-7965.8	110.12	µg/L	110.12	ppb	15:30:13
2	V 292.402†	1776456.8	1886519.8	10211	µg/L	10211	ppb	15:30:11
2	Zn 213.857†	2189903.3	2325439.4	14348	µg/L	14348	ppb	15:30:11
3	Sc RADIAL	144822.6	144822.6	98.0	%			15:29:50
3	Al 396.153Radial†	2092.1	2198.4	-0.8903	µg/L	-0.8903	ppb	15:29:52
3	Ca 317.933Radial†	1203.7	530.7	31.929	µg/L	31.929	ppb	15:29:52
3	Fe 238.204 Radial†	-857.2	-1015.7	-68.345	µg/L	-68.345	ppb	15:29:52
3	K 766.490 Radial†	711651.3	725116.0	298430	µg/L	298430	ppb	15:29:50
3	Mg 279.077 IEC†	-463.8	-642.2	-24.276	µg/L	-24.276	ppb	15:29:52
3	Na 589.592 Radial†	4742.0	3633.8	286.38	µg/L	286.38	ppb	15:29:52
3	Sr 421.552†	4172633.3	4259499.7	9826.0	µg/L	9826.0	ppb	15:29:48
3	Sc 361.383	1657044.9	1657044.9	94.414	%			15:30:20
3	Y 371.029	978361.9	978361.9	91.947	%			15:30:20
3	Ag 328.068†	-23261.7	-28085.0	6.8804	µg/L	6.8804	ppb	15:30:22
3	As 188.979†	26976.3	28590.0	10231	µg/L	10231	ppb	15:30:22
3	B 249.677†	292997.5	307101.2	4974.4	µg/L	4974.4	ppb	15:30:20
3	Ba 233.527†	3012217.2	3190585.1	13902	µg/L	13902	ppb	15:30:20
3	Be 313.107†	8910545.1	9438487.5	2832.4	µg/L	2832.4	ppb	15:30:17
3	Cd 226.502†	1326786.2	1405390.3	9654.0	µg/L	9654.0	ppb	15:30:20
3	Co 228.616†	655684.4	694647.7	9412.0	µg/L	9412.0	ppb	15:30:20
3	Cr 267.716†	2685859.8	2844579.4	23972	µg/L	23972	ppb	15:30:20
3	Cu 324.752†	4522887.5	4787677.1	20179	µg/L	20179	ppb	15:30:20
3	Mn 257.610†	6615553.1	7006760.3	9365.4	µg/L	9365.4	ppb	15:30:20
3	Mo 202.031†	290065.6	307260.9	9777.0	µg/L	9777.0	ppb	15:30:22
3	Ni 231.604†	731039.6	774366.6	9739.8	µg/L	9739.8	ppb	15:30:20
3	P 214.914†	60515.4	64090.6	15051	µg/L	15051	ppb	15:30:22
3	Pb 220.353†	365639.3	387174.0	23737	µg/L	23737	ppb	15:30:22
3	S 181.975 Axial†	59594.5	63032.5	51752	µg/L	51752	ppb	15:30:22
3	Sb 206.836†	72374.1	76577.8	9853.0	µg/L	9853.0	ppb	15:30:22
3	Se 196.026†	23069.3	24420.5	9770	µg/L	9770	ppb	15:30:22
3	SiO2†	891398.7	942381.5	100400	µg/L	100400	ppb	15:30:20
3	Si 251.611†	2745197.8	2906657.8	46852	µg/L	46852	ppb	15:30:20
3	Sn 189.927†	135116.5	143112.7	9941.3	µg/L	9941.3	ppb	15:30:22
3	Ti 334.940†	9334301.8	9885642.8	9896.0	µg/L	9896.0	ppb	15:30:17
3	Tl 190.801†	66740.2	70805.7	9666.8	µg/L	9666.8	ppb	15:30:22
3	U 409.014†	-8268.5	-8473.9	78.920	µg/L	78.920	ppb	15:30:22
3	V 292.402†	1783384.1	1888581.0	10222	µg/L	10222	ppb	15:30:20
3	Zn 213.857†	2199491.6	2329091.1	14370	µg/L	14370	ppb	15:30:20

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1657717.9	94.453	%	0.3232				0.34%
Sc RADIAL	144348.8	97.6	%	0.29				0.30%
Y 371.029	978520.8	91.962	%	0.3097				0.34%
Ag 328.068†	-28357.0	5.8233	µg/L	0.91551	5.8233	ppb	0.91551	15.72%
Al 396.153Radial†	2286.4	16.858	µg/L	16.4064	16.858	ppb	16.4064	97.32%
As 188.979†	28752.7	10287	µg/L	79.2	10287	ppb	79.2	0.77%
QC value within limits for As 188.979 Recovery = 102.87%								
B 249.677†	306855.8	4970.4	µg/L	7.69	4970.4	ppb	7.69	0.15%
QC value within limits for B 249.677 Recovery = 99.41%								
Ba 233.527†	3190195.9	13900	µg/L	17.1	13900	ppb	17.1	0.12%
QC value within limits for Ba 233.527 Recovery = 92.67%								
Be 313.107†	9479038.1	2844.6	µg/L	21.62	2844.6	ppb	21.62	0.76%
QC value within limits for Be 313.107 Recovery = 94.82%								
Ca 317.933Radial†	510.8	30.733	µg/L	1.9038	30.733	ppb	1.9038	6.19%
Cd 226.502†	1404129.2	9645.4	µg/L	17.10	9645.4	ppb	17.10	0.18%
QC value within limits for Cd 226.502 Recovery = 96.45%								
Co 228.616†	694637.5	9411.9	µg/L	11.23	9411.9	ppb	11.23	0.12%
QC value within limits for Co 228.616 Recovery = 94.12%								
Cr 267.716†	2843003.6	23958	µg/L	27.5	23958	ppb	27.5	0.11%
QC value within limits for Cr 267.716 Recovery = 95.83%								

Cu 324.752†	4789421.1	20187 µg/L	18.3	20187 ppb	18.3	0.09%
QC value within limits for Cu 324.752 Recovery = 100.93%						
Fe 238.204 Radial†	-990.0	-66.617 µg/L	1.7042	-66.617 ppb	1.7042	2.56%
K 766.490 Radial†	723834.8	297900 µg/L	829.2	297900 ppb	829.2	0.28%
QC value within limits for K 766.490 Radial Recovery = 99.30%						
Mg 279.077 IEC†	-658.6	-30.818 µg/L	6.4320	-30.818 ppb	6.4320	20.87%
Mn 257.610†	7007705.4	9366.6 µg/L	8.95	9366.6 ppb	8.95	0.10%
QC value within limits for Mn 257.610 Recovery = 93.67%						
Mo 202.031†	307514.2	9785.1 µg/L	62.70	9785.1 ppb	62.70	0.64%
QC value within limits for Mo 202.031 Recovery = 97.85%						
Na 589.592 Radial†	3905.6	328.11 µg/L	39.594	328.11 ppb	39.594	12.07%
Ni 231.604†	773997.2	9735.1 µg/L	15.62	9735.1 ppb	15.62	0.16%
QC value within limits for Ni 231.604 Recovery = 97.35%						
P 214.914†	64090.2	15051 µg/L	107.1	15051 ppb	107.1	0.71%
QC value within limits for P 214.914 Recovery = 100.34%						
Pb 220.353†	387414.1	23751 µg/L	172.5	23751 ppb	172.5	0.73%
QC value within limits for Pb 220.353 Recovery = 95.01%						
S 181.975 Axial†	63125.6	51829 µg/L	433.3	51829 ppb	433.3	0.84%
QC value within limits for S 181.975 Axial Recovery = 103.66%						
Sb 206.836†	76525.5	9846.4 µg/L	72.30	9846.4 ppb	72.30	0.73%
QC value within limits for Sb 206.836 Recovery = 98.46%						
Se 196.026†	24386.8	9760 µg/L	98.5	9760 ppb	98.5	1.01%
QC value within limits for Se 196.026 Recovery = 97.61%						
SiO2†	941497.5	100300 µg/L	156.5	100300 ppb	156.5	0.16%
QC value within limits for SiO2 Recovery = 93.74%						
Si 251.611†	2903605.8	46802 µg/L	65.9	46802 ppb	65.9	0.14%
QC value within limits for Si 251.611 Recovery = 93.60%						
Sn 189.927†	143160.6	9944.7 µg/L	85.44	9944.7 ppb	85.44	0.86%
QC value within limits for Sn 189.927 Recovery = 99.45%						
Sr 421.552†	4277493.1	9867.5 µg/L	37.43	9867.5 ppb	37.43	0.38%
QC value within limits for Sr 421.552 Recovery = 98.68%						
Ti 334.940†	9917945.0	9928.3 µg/L	71.57	9928.3 ppb	71.57	0.72%
QC value within limits for Ti 334.940 Recovery = 99.28%						
Tl 190.801†	70889.2	9678.4 µg/L	76.09	9678.4 ppb	76.09	0.79%
QC value within limits for Tl 190.801 Recovery = 96.78%						
U 409.014†	-8242.4	93.479 µg/L	15.7042	93.479 ppb	15.7042	16.80%
V 292.402†	1888692.6	10222 µg/L	11.4	10222 ppb	11.4	0.11%
QC value within limits for V 292.402 Recovery = 102.22%						
Zn 213.857†	2328133.9	14364 µg/L	14.5	14364 ppb	14.5	0.10%
QC value within limits for Zn 213.857 Recovery = 95.76%						

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/30/2010 15:38:03 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033010.sif
Batch ID:
Results Data Set: 033010B
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/30/2010 14:42:21**
IEC File: 031810.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	No
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	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
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
SiO2	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

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/30/2010 15:38:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **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	151504.5	151504.5	102	%			15:38:38
1	Al 396.153Radial†	25127.4	24580.8	5041.9	µg/L	5041.9	ppb	15:38:38
1	Ca 317.933Radial†	86568.9	83771.3	5040.3	µg/L	5040.3	ppb	15:38:38
1	Fe 238.204 Radial†	76327.0	74335.0	5001.9	µg/L	5001.9	ppb	15:38:38

1	K 766.490 Radial†	14132.9	12477.3	5131.1 µg/L	5131.1 ppb	15:38:38
1	Mg 279.077 IEC†	12891.5	12410.0	5098.9 µg/L	5098.9 ppb	15:38:38
1	Na 589.592 Radial†	69008.8	66128.4	10037 µg/L	10037 ppb	15:38:38
1	Sr 421.552†	226574.4	221300.6	510.47 µg/L	510.47 ppb	15:38:36
1	Sc 361.383	1759627.0	1759627.0	100.26 %		15:39:05
1	Y 371.029	1053204.5	1053204.5	98.981 %		15:39:05
1	Ag 328.068†	128951.6	125171.1	503.81 µg/L	503.81 ppb	15:39:05
1	As 188.979†	1422.1	1436.1	508.39 µg/L	508.39 ppb	15:39:25
1	B 249.677†	33989.6	30671.4	498.32 µg/L	498.32 ppb	15:39:05
1	Ba 233.527†	115707.9	115570.8	503.62 µg/L	503.62 ppb	15:39:05
1	Be 313.107†	1680446.8	1676887.5	503.39 µg/L	503.39 ppb	15:39:05
1	Cd 226.502†	73648.0	73567.6	504.83 µg/L	504.83 ppb	15:39:05
1	Co 228.616†	37203.9	37280.2	504.48 µg/L	504.48 ppb	15:39:05
1	Cr 267.716†	59799.2	59466.0	500.92 µg/L	500.92 ppb	15:39:05
1	Cu 324.752†	121918.4	118814.3	502.21 µg/L	502.21 ppb	15:39:05
1	Mn 257.610†	378583.6	377429.2	504.26 µg/L	504.26 ppb	15:39:05
1	Mo 202.031†	15912.6	15906.2	506.42 µg/L	506.42 ppb	15:39:25
1	Ni 231.604†	40265.5	40239.2	506.12 µg/L	506.12 ppb	15:39:05
1	P 214.914†	10703.2	10670.6	2536.6 µg/L	2536.6 ppb	15:39:25
1	Pb 220.353†	8477.2	8358.3	513.39 µg/L	513.39 ppb	15:39:25
1	S 181.975 Axial†	1327.5	1236.3	1017.7 µg/L	1017.7 ppb	15:39:25
1	Sb 206.836†	3955.7	3867.4	508.32 µg/L	508.32 ppb	15:39:25
1	Se 196.026†	1278.1	1261.2	507 µg/L	507 ppb	15:39:25
1	SiO2†	52159.9	50271.9	5356.6 µg/L	5356.6 ppb	15:39:05
1	Si 251.611†	156911.9	155557.5	2507.8 µg/L	2507.8 ppb	15:39:05
1	Sn 189.927†	7362.3	7345.9	510.26 µg/L	510.26 ppb	15:39:25
1	Ti 334.940†	504167.2	501978.0	502.26 µg/L	502.26 ppb	15:39:05
1	Tl 190.801†	3668.6	3776.2	515.02 µg/L	515.02 ppb	15:39:25
1	U 409.014†	7195.7	7460.8	497.79 µg/L	497.79 ppb	15:39:05
1	V 292.402†	94524.8	93970.6	505.63 µg/L	505.63 ppb	15:39:05
1	Zn 213.857†	82270.9	81533.6	501.71 µg/L	501.71 ppb	15:39:05
2	Sc RADIAL	151631.1	151631.1	103 %		15:38:42
2	Al 396.153Radial†	25213.3	24644.1	5055.0 µg/L	5055.0 ppb	15:38:42
2	Ca 317.933Radial†	87483.6	84592.5	5089.7 µg/L	5089.7 ppb	15:38:42
2	Fe 238.204 Radial†	77201.5	75125.4	5055.1 µg/L	5055.1 ppb	15:38:42
2	K 766.490 Radial†	14019.2	12355.0	5080.7 µg/L	5080.7 ppb	15:38:42
2	Mg 279.077 IEC†	13203.3	12703.5	5219.2 µg/L	5219.2 ppb	15:38:42
2	Na 589.592 Radial†	69553.7	66603.4	10109 µg/L	10109 ppb	15:38:42
2	Sr 421.552†	226352.0	220899.3	509.54 µg/L	509.54 ppb	15:38:40
2	Sc 361.383	1767397.7	1767397.7	100.70 %		15:39:28
2	Y 371.029	1058646.7	1058646.7	99.493 %		15:39:28
2	Ag 328.068†	130859.4	126500.1	509.15 µg/L	509.15 ppb	15:39:28
2	As 188.979†	1436.5	1444.1	511.22 µg/L	511.22 ppb	15:39:48
2	B 249.677†	34379.8	30909.8	502.19 µg/L	502.19 ppb	15:39:28
2	Ba 233.527†	116901.8	116249.1	506.58 µg/L	506.58 ppb	15:39:28
2	Be 313.107†	1699340.4	1688280.0	506.81 µg/L	506.81 ppb	15:39:28
2	Cd 226.502†	74684.6	74274.0	509.68 µg/L	509.68 ppb	15:39:28
2	Co 228.616†	37834.3	37743.0	510.74 µg/L	510.74 ppb	15:39:28
2	Cr 267.716†	60466.1	59866.0	504.29 µg/L	504.29 ppb	15:39:28
2	Cu 324.752†	122933.7	119287.8	504.23 µg/L	504.23 ppb	15:39:28
2	Mn 257.610†	382584.1	379741.6	507.35 µg/L	507.35 ppb	15:39:28
2	Mo 202.031†	15964.7	15888.1	505.85 µg/L	505.85 ppb	15:39:48
2	Ni 231.604†	40711.4	40505.5	509.47 µg/L	509.47 ppb	15:39:28
2	P 214.914†	10678.1	10598.7	2519.4 µg/L	2519.4 ppb	15:39:48
2	Pb 220.353†	8471.7	8315.7	510.77 µg/L	510.77 ppb	15:39:48
2	S 181.975 Axial†	1340.2	1243.1	1023.3 µg/L	1023.3 ppb	15:39:48
2	Sb 206.836†	3947.9	3842.3	504.98 µg/L	504.98 ppb	15:39:48
2	Se 196.026†	1275.0	1252.5	504 µg/L	504 ppb	15:39:48
2	SiO2†	52564.4	50444.8	5375.1 µg/L	5375.1 ppb	15:39:28
2	Si 251.611†	158508.2	156454.6	2522.3 µg/L	2522.3 ppb	15:39:28
2	Sn 189.927†	7380.4	7331.5	509.27 µg/L	509.27 ppb	15:39:48
2	Ti 334.940†	508780.8	504348.6	504.62 µg/L	504.62 ppb	15:39:28
2	Tl 190.801†	3664.4	3755.9	512.33 µg/L	512.33 ppb	15:39:48
2	U 409.014†	7366.9	7599.3	506.72 µg/L	506.72 ppb	15:39:28
2	V 292.402†	95762.2	94784.8	509.95 µg/L	509.95 ppb	15:39:28
2	Zn 213.857†	83402.5	82296.5	506.42 µg/L	506.42 ppb	15:39:28
3	Sc RADIAL	151391.2	151391.2	102 %		15:38:46
3	Al 396.153Radial†	25270.0	24738.4	5074.3 µg/L	5074.3 ppb	15:38:46
3	Ca 317.933Radial†	87371.5	84618.2	5091.3 µg/L	5091.3 ppb	15:38:46
3	Fe 238.204 Radial†	77219.5	75262.3	5064.3 µg/L	5064.3 ppb	15:38:46
3	K 766.490 Radial†	14248.8	12600.8	5181.9 µg/L	5181.9 ppb	15:38:46

3	Mg 279.077 IEC†	13166.9	12688.3	5213.0 µg/L	5213.0 ppb	15:38:46
3	Na 589.592 Radial†	69635.2	66790.4	10137 µg/L	10137 ppb	15:38:46
3	Sr 421.552†	229157.3	223988.2	516.67 µg/L	516.67 ppb	15:38:44
3	Sc 361.383	1755860.8	1755860.8	100.04 %		15:39:51
3	Y 371.029	1051150.6	1051150.6	98.788 %		15:39:51
3	Ag 328.068†	129337.0	125832.2	506.50 µg/L	506.50 ppb	15:39:51
3	As 188.979†	1421.3	1438.3	509.21 µg/L	509.21 ppb	15:40:11
3	B 249.677†	34212.5	30966.9	503.12 µg/L	503.12 ppb	15:39:51
3	Ba 233.527†	115940.4	116050.8	505.72 µg/L	505.72 ppb	15:39:51
3	Be 313.107†	1687416.9	1687449.6	506.56 µg/L	506.56 ppb	15:39:51
3	Cd 226.502†	73921.5	73998.5	507.78 µg/L	507.78 ppb	15:39:51
3	Co 228.616†	37565.8	37721.5	510.45 µg/L	510.45 ppb	15:39:51
3	Cr 267.716†	60098.6	59893.2	504.51 µg/L	504.51 ppb	15:39:51
3	Cu 324.752†	122263.6	119420.1	504.79 µg/L	504.79 ppb	15:39:51
3	Mn 257.610†	379537.3	379192.3	506.61 µg/L	506.61 ppb	15:39:51
3	Mo 202.031†	15914.9	15942.5	507.58 µg/L	507.58 ppb	15:40:11
3	Ni 231.604†	40391.8	40451.7	508.79 µg/L	508.79 ppb	15:39:51
3	P 214.914†	10679.2	10669.4	2536.2 µg/L	2536.2 ppb	15:40:11
3	Pb 220.353†	8465.8	8365.1	513.80 µg/L	513.80 ppb	15:40:11
3	S 181.975 Axial†	1323.1	1234.8	1016.5 µg/L	1016.5 ppb	15:40:11
3	Sb 206.836†	3956.0	3876.1	509.43 µg/L	509.43 ppb	15:40:11
3	Se 196.026†	1279.2	1265.1	509 µg/L	509 ppb	15:40:11
3	SiO2†	52368.9	50592.4	5390.8 µg/L	5390.8 ppb	15:39:51
3	Si 251.611†	157439.7	156420.8	2521.7 µg/L	2521.7 ppb	15:39:51
3	Sn 189.927†	7339.1	7338.4	509.75 µg/L	509.75 ppb	15:40:11
3	Ti 334.940†	505640.1	504528.9	504.80 µg/L	504.80 ppb	15:39:51
3	Tl 190.801†	3657.4	3772.9	514.61 µg/L	514.61 ppb	15:40:11
3	U 409.014†	7450.5	7730.9	514.89 µg/L	514.89 ppb	15:39:51
3	V 292.402†	94903.2	94551.0	508.74 µg/L	508.74 ppb	15:39:51
3	Zn 213.857†	82565.8	82004.4	504.61 µg/L	504.61 ppb	15:39:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760961.8	100.34	%	0.335				0.33%
Sc RADIAL	151508.9	102	%	0.1				0.08%
Y 371.029	1054333.9	99.087	%	0.3640				0.37%
Ag 328.068†	125834.5	506.49	µg/L	2.671	506.49	ppb	2.671	0.53%
QC value within limits for Ag 328.068 Recovery = 101.30%								
Al 396.153Radial†	24654.5	5057.1	µg/L	16.32	5057.1	ppb	16.32	0.32%
QC value within limits for Al 396.153Radial Recovery = 101.14%								
As 188.979†	1439.5	509.60	µg/L	1.458	509.60	ppb	1.458	0.29%
QC value within limits for As 188.979 Recovery = 101.92%								
B 249.677†	30849.4	501.21	µg/L	2.544	501.21	ppb	2.544	0.51%
QC value within limits for B 249.677 Recovery = 100.24%								
Ba 233.527†	115956.9	505.31	µg/L	1.519	505.31	ppb	1.519	0.30%
QC value within limits for Ba 233.527 Recovery = 101.06%								
Be 313.107†	1684205.7	505.59	µg/L	1.908	505.59	ppb	1.908	0.38%
QC value within limits for Be 313.107 Recovery = 101.12%								
Ca 317.933Radial†	84327.3	5073.8	µg/L	28.98	5073.8	ppb	28.98	0.57%
QC value within limits for Ca 317.933Radial Recovery = 101.48%								
Cd 226.502†	73946.7	507.43	µg/L	2.442	507.43	ppb	2.442	0.48%
QC value within limits for Cd 226.502 Recovery = 101.49%								
Co 228.616†	37581.5	508.55	µg/L	3.533	508.55	ppb	3.533	0.69%
QC value within limits for Co 228.616 Recovery = 101.71%								
Cr 267.716†	59741.7	503.24	µg/L	2.010	503.24	ppb	2.010	0.40%
QC value within limits for Cr 267.716 Recovery = 100.65%								
Cu 324.752†	119174.0	503.74	µg/L	1.358	503.74	ppb	1.358	0.27%
QC value within limits for Cu 324.752 Recovery = 100.75%								
Fe 238.204 Radial†	74907.6	5040.4	µg/L	33.68	5040.4	ppb	33.68	0.67%
QC value within limits for Fe 238.204 Radial Recovery = 100.81%								
K 766.490 Radial†	12477.7	5131.2	µg/L	50.59	5131.2	ppb	50.59	0.99%
QC value within limits for K 766.490 Radial Recovery = 102.62%								
Mg 279.077 IEC†	12600.6	5177.1	µg/L	67.76	5177.1	ppb	67.76	1.31%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	378787.7	506.08	µg/L	1.612	506.08	ppb	1.612	0.32%
QC value within limits for Mn 257.610 Recovery = 101.22%								
Mo 202.031†	15912.3	506.62	µg/L	0.882	506.62	ppb	0.882	0.17%
QC value within limits for Mo 202.031 Recovery = 101.32%								
Na 589.592 Radial†	66507.4	10094	µg/L	51.8	10094	ppb	51.8	0.51%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	40398.8	508.13 µg/L	1.771	508.13 ppb	1.771	0.35%

QC value within limits for Ni 231.604 Recovery = 101.63%

P 214.914†	10646.2	2530.7 µg/L	9.83	2530.7 ppb	9.83	0.39%

QC value within limits for P 214.914 Recovery = 101.23%

Pb 220.353†	8346.3	512.65 µg/L	1.641	512.65 ppb	1.641	0.32%

QC value within limits for Pb 220.353 Recovery = 102.53%

S 181.975 Axial†	1238.1	1019.2 µg/L	3.61	1019.2 ppb	3.61	0.35%

QC value within limits for S 181.975 Axial Recovery = 101.92%

Sb 206.836†	3861.9	507.58 µg/L	2.318	507.58 ppb	2.318	0.46%

QC value within limits for Sb 206.836 Recovery = 101.52%

Se 196.026†	1259.6	506 µg/L	2.6	506 ppb	2.6	0.51%

QC value within limits for Se 196.026 Recovery = 101.28%

SiO2†	50436.4	5374.2 µg/L	17.15	5374.2 ppb	17.15	0.32%

QC value within limits for SiO2 Recovery = 100.50%

Si 251.611†	156144.3	2517.3 µg/L	8.23	2517.3 ppb	8.23	0.33%

QC value within limits for Si 251.611 Recovery = 100.69%

Sn 189.927†	7338.6	509.76 µg/L	0.493	509.76 ppb	0.493	0.10%

QC value within limits for Sn 189.927 Recovery = 101.95%

Sr 421.552†	222062.7	512.23 µg/L	3.874	512.23 ppb	3.874	0.76%

QC value within limits for Sr 421.552 Recovery = 102.45%

Ti 334.940†	503618.5	503.89 µg/L	1.418	503.89 ppb	1.418	0.28%

QC value within limits for Ti 334.940 Recovery = 100.78%

Tl 190.801†	3768.3	513.99 µg/L	1.448	513.99 ppb	1.448	0.28%

QC value within limits for Tl 190.801 Recovery = 102.80%

U 409.014†	7597.0	506.47 µg/L	8.551	506.47 ppb	8.551	1.69%

QC value within limits for U 409.014 Recovery = 101.29%

V 292.402†	94435.5	508.11 µg/L	2.233	508.11 ppb	2.233	0.44%

QC value within limits for V 292.402 Recovery = 101.62%

Zn 213.857†	81944.8	504.24 µg/L	2.372	504.24 ppb	2.372	0.47%

QC value within limits for Zn 213.857 Recovery = 100.85%

All analyte(s) passed QC.

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 15:40:19
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	152271.6	152271.6	103	%			15:40:49
1	Al 396.153Radial†	-38.2	25.8	5.3134	µg/L	5.3134	ppb	15:41:09
1	Ca 317.933Radial†	593.7	-121.6	-7.3179	µg/L	-7.3179	ppb	15:41:09
1	Fe 238.204 Radial†	146.8	1.9	0.1250	µg/L	0.1250	ppb	15:41:09
1	K 766.490 Radial†	1582.5	223.6	91.992	µg/L	91.992	ppb	15:40:49
1	Mg 279.077 IEC†	171.9	-1.9	-0.7624	µg/L	-0.7624	ppb	15:41:09
1	Na 589.592 Radial†	1948.7	685.2	103.97	µg/L	103.97	ppb	15:40:49
1	Sr 421.552†	-262.3	-33.0	-0.0760	µg/L	-0.0760	ppb	15:40:49
1	Sc 361.383	1761746.1	1761746.1	100.38	%			15:42:11
1	Y 371.029	1068118.8	1068118.8	100.38	%			15:42:11
1	Ag 328.068†	3245.5	-213.9	-0.8439	µg/L	-0.8439	ppb	15:42:13
1	As 188.979†	-13.3	4.5	1.5509	µg/L	1.5509	ppb	15:42:33
1	B 249.677†	3249.5	6.9	0.1116	µg/L	0.1116	ppb	15:42:33
1	Ba 233.527†	-156.2	6.5	0.0280	µg/L	0.0280	ppb	15:42:33
1	Be 313.107†	-658.9	129.2	0.0424	µg/L	0.0424	ppb	15:42:13
1	Cd 226.502†	-73.5	36.8	0.2528	µg/L	0.2528	ppb	15:42:33
1	Co 228.616†	-169.4	3.7	0.0497	µg/L	0.0497	ppb	15:42:33
1	Cr 267.716†	146.3	-32.8	-0.2859	µg/L	-0.2859	ppb	15:42:33
1	Cu 324.752†	2940.0	139.9	0.5993	µg/L	0.5993	ppb	15:42:13
1	Mn 257.610†	146.6	-29.6	-0.0395	µg/L	-0.0395	ppb	15:42:33
1	Mo 202.031†	-31.7	3.2	0.1017	µg/L	0.1017	ppb	15:42:33
1	Ni 231.604†	-80.5	-2.3	-0.0290	µg/L	-0.0290	ppb	15:42:33
1	P 214.914†	10.9	5.9	1.4022	µg/L	1.4022	ppb	15:42:33
1	Pb 220.353†	91.1	-6.2	-0.3899	µg/L	-0.3899	ppb	15:42:33
1	S 181.975 Axial†	91.1	3.1	2.5246	µg/L	2.5246	ppb	15:42:33
1	Sb 206.836†	82.7	4.4	0.5766	µg/L	0.5766	ppb	15:42:33
1	Se 196.026†	16.5	2.9	1.16	µg/L	1.16	ppb	15:42:33
1	SiO2†	1686.5	-73.0	-7.8262	µg/L	-7.8262	ppb	15:42:33
1	Si 251.611†	796.3	-155.3	-2.5203	µg/L	-2.5203	ppb	15:42:33
1	Sn 189.927†	8.2	10.7	0.7386	µg/L	0.7386	ppb	15:42:33
1	Ti 334.940†	880.2	-8.7	-0.0137	µg/L	-0.0137	ppb	15:42:13
1	Tl 190.801†	-115.7	1.9	0.2434	µg/L	0.2434	ppb	15:42:33
1	U 409.014†	-94.2	189.9	11.851	µg/L	11.851	ppb	15:42:13
1	V 292.402†	174.7	-135.8	-0.7133	µg/L	-0.7133	ppb	15:42:13
1	Zn 213.857†	549.9	23.3	0.1441	µg/L	0.1441	ppb	15:42:33
2	Sc RADIAL	150618.8	150618.8	102	%			15:41:11
2	Al 396.153Radial†	-53.4	10.5	2.1418	µg/L	2.1418	ppb	15:41:31
2	Ca 317.933Radial†	581.3	-127.4	-7.6675	µg/L	-7.6675	ppb	15:41:31
2	Fe 238.204 Radial†	171.2	27.3	1.8369	µg/L	1.8369	ppb	15:41:31
2	K 766.490 Radial†	1606.1	263.5	108.45	µg/L	108.45	ppb	15:41:11
2	Mg 279.077 IEC†	179.0	6.9	2.8302	µg/L	2.8302	ppb	15:41:31
2	Na 589.592 Radial†	1952.8	710.0	107.71	µg/L	107.71	ppb	15:41:11
2	Sr 421.552†	-168.0	56.8	0.1310	µg/L	0.1310	ppb	15:41:11
2	Sc 361.383	1744841.8	1744841.8	99.417	%			15:42:35
2	Y 371.029	1059308.4	1059308.4	99.555	%			15:42:35
2	Ag 328.068†	3616.7	190.8	0.7580	µg/L	0.7580	ppb	15:42:37
2	As 188.979†	-24.5	-7.0	-2.4263	µg/L	-2.4263	ppb	15:42:57
2	B 249.677†	3270.5	59.3	0.9680	µg/L	0.9680	ppb	15:42:57
2	Ba 233.527†	-154.1	7.2	0.0313	µg/L	0.0313	ppb	15:42:57
2	Be 313.107†	-485.0	297.7	0.0894	µg/L	0.0894	ppb	15:42:37
2	Cd 226.502†	-103.0	6.4	0.0440	µg/L	0.0440	ppb	15:42:57
2	Co 228.616†	-197.0	-25.7	-0.3482	µg/L	-0.3482	ppb	15:42:57
2	Cr 267.716†	149.9	-27.8	-0.2344	µg/L	-0.2344	ppb	15:42:57
2	Cu 324.752†	2688.9	-84.2	-0.3548	µg/L	-0.3548	ppb	15:42:37
2	Mn 257.610†	185.8	11.3	0.0150	µg/L	0.0150	ppb	15:42:57
2	Mo 202.031†	-25.5	9.1	0.2905	µg/L	0.2905	ppb	15:42:57
2	Ni 231.604†	-56.6	20.9	0.2635	µg/L	0.2635	ppb	15:42:57
2	P 214.914†	13.3	8.4	2.0004	µg/L	2.0004	ppb	15:42:57
2	Pb 220.353†	110.4	14.1	0.8625	µg/L	0.8625	ppb	15:42:57

2	S 181.975 Axial†	98.4	11.2	9.2093 µg/L	9.2093 ppb	15:42:57
2	Sb 206.836†	81.8	4.2	0.5540 µg/L	0.5540 ppb	15:42:57
2	Se 196.026†	12.4	-1.1	-0.426 µg/L	-0.426 ppb	15:42:57
2	SiO2†	1708.7	-34.4	-3.6920 µg/L	-3.6920 ppb	15:42:57
2	Si 251.611†	793.5	-150.5	-2.4395 µg/L	-2.4395 ppb	15:42:57
2	Sn 189.927†	-3.9	-1.4	-0.0980 µg/L	-0.0980 ppb	15:42:57
2	Ti 334.940†	736.5	-144.8	-0.1454 µg/L	-0.1454 ppb	15:42:37
2	Tl 190.801†	-120.7	-4.3	-0.5836 µg/L	-0.5836 ppb	15:42:57
2	U 409.014†	-281.2	0.9	0.0544 µg/L	0.0544 ppb	15:42:37
2	V 292.402†	298.4	-9.7	-0.0495 µg/L	-0.0495 ppb	15:42:37
2	Zn 213.857†	548.3	27.0	0.1659 µg/L	0.1659 ppb	15:42:57
3	Sc RADIAL	150276.3	150276.3	102 %		15:41:33
3	Al 396.153Radial†	-42.9	20.6	4.2398 µg/L	4.2398 ppb	15:41:53
3	Ca 317.933Radial†	575.7	-131.7	-7.9223 µg/L	-7.9223 ppb	15:41:53
3	Fe 238.204 Radial†	159.4	16.1	1.0819 µg/L	1.0819 ppb	15:41:53
3	K 766.490 Radial†	1605.7	266.8	109.77 µg/L	109.77 ppb	15:41:33
3	Mg 279.077 IEC†	158.6	-12.8	-5.2449 µg/L	-5.2449 ppb	15:41:53
3	Na 589.592 Radial†	1794.4	558.5	84.715 µg/L	84.715 ppb	15:41:33
3	Sr 421.552†	-256.8	-31.0	-0.0714 µg/L	-0.0714 ppb	15:41:33
3	Sc 361.383	1748415.8	1748415.8	99.620 %		15:42:59
3	Y 371.029	1061132.7	1061132.7	99.726 %		15:42:59
3	Ag 328.068†	3479.1	45.3	0.1721 µg/L	0.1721 ppb	15:43:01
3	As 188.979†	-15.1	2.5	0.8709 µg/L	0.8709 ppb	15:43:21
3	B 249.677†	3242.7	24.7	0.4031 µg/L	0.4031 ppb	15:43:21
3	Ba 233.527†	-211.2	-49.8	-0.2173 µg/L	-0.2173 ppb	15:43:21
3	Be 313.107†	-621.8	161.4	0.0478 µg/L	0.0478 ppb	15:43:01
3	Cd 226.502†	-106.4	3.2	0.0217 µg/L	0.0217 ppb	15:43:21
3	Co 228.616†	-168.4	3.4	0.0451 µg/L	0.0451 ppb	15:43:21
3	Cr 267.716†	182.8	4.9	0.0428 µg/L	0.0428 ppb	15:43:21
3	Cu 324.752†	2822.4	44.2	0.1848 µg/L	0.1848 ppb	15:43:01
3	Mn 257.610†	163.1	-11.8	-0.0156 µg/L	-0.0156 ppb	15:43:21
3	Mo 202.031†	-27.1	7.5	0.2393 µg/L	0.2393 ppb	15:43:21
3	Ni 231.604†	-73.8	3.8	0.0482 µg/L	0.0482 ppb	15:43:21
3	P 214.914†	21.6	16.6	3.9756 µg/L	3.9756 ppb	15:43:21
3	Pb 220.353†	107.7	11.1	0.6820 µg/L	0.6820 ppb	15:43:21
3	S 181.975 Axial†	89.1	1.7	1.3920 µg/L	1.3920 ppb	15:43:21
3	Sb 206.836†	74.7	-3.1	-0.3965 µg/L	-0.3965 ppb	15:43:21
3	Se 196.026†	12.9	-0.6	-0.241 µg/L	-0.241 ppb	15:43:21
3	SiO2†	1708.0	-38.6	-4.1618 µg/L	-4.1618 ppb	15:43:21
3	Si 251.611†	777.3	-168.4	-2.7378 µg/L	-2.7378 ppb	15:43:21
3	Sn 189.927†	17.4	20.0	1.3815 µg/L	1.3815 ppb	15:43:21
3	Ti 334.940†	767.6	-115.0	-0.1142 µg/L	-0.1142 ppb	15:43:01
3	Tl 190.801†	-132.3	-15.7	-2.1132 µg/L	-2.1132 ppb	15:43:21
3	U 409.014†	-314.3	-31.8	-2.0187 µg/L	-2.0187 ppb	15:43:01
3	V 292.402†	220.4	-88.6	-0.4693 µg/L	-0.4693 ppb	15:43:01
3	Zn 213.857†	528.4	5.8	0.0357 µg/L	0.0357 ppb	15:43:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751667.9	99.806	%	0.5076				0.51%
Sc RADIAL	151055.6	102	%	0.7				0.71%
Y 371.029	1062853.3	99.888	%	0.4370				0.44%
Ag 328.068†	7.4	0.0288	µg/L	0.81049	0.0288	ppb	0.81049	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.0	3.8983	µg/L	1.61314	3.8983	ppb	1.61314	41.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0015	µg/L	2.12733	-0.0015	ppb	2.12733	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.3	0.4942	µg/L	0.43544	0.4942	ppb	0.43544	88.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.0	-0.0527	µg/L	0.14255	-0.0527	ppb	0.14255	270.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	196.1	0.0599	µg/L	0.02571	0.0599	ppb	0.02571	42.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-126.9	-7.6359	µg/L	0.30344	-7.6359	ppb	0.30344	3.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.5	0.1061	µg/L	0.12749	0.1061	ppb	0.12749	120.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-6.2	-0.0845	µg/L	0.22840	-0.0845	ppb	0.22840	270.40%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.6     -0.1592 µg/L       0.17679     -0.1592 ppb        0.17679 111.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               33.3      0.1431 µg/L       0.47842      0.1431 ppb        0.47842 334.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        15.1      1.0146 µg/L       0.85793      1.0146 ppb        0.85793  84.56%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        251.3      103.40 µg/L         9.906      103.40 ppb          9.906   9.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.6     -1.0590 µg/L       4.04567     -1.0590 ppb        4.04567 382.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -10.0     -0.0134 µg/L       0.02732     -0.0134 ppb        0.02732 204.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.6      0.2105 µg/L       0.09765      0.2105 ppb        0.09765  46.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       651.2      98.798 µg/L       12.3396      98.798 ppb        12.3396  12.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.5      0.0942 µg/L       0.15155      0.0942 ppb        0.15155 160.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.3      2.4594 µg/L       1.34672      2.4594 ppb        1.34672  54.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.3      0.3849 µg/L       0.67701      0.3849 ppb        0.67701 175.89%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.3      4.3753 µg/L       4.22448      4.3753 ppb        4.22448  96.55%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.8      0.2447 µg/L       0.55538      0.2447 ppb        0.55538 226.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.163 µg/L        0.8651       0.163 ppb         0.8651 529.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -48.7     -5.2267 µg/L       2.26347     -5.2267 ppb        2.26347  43.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -158.1     -2.5658 µg/L       0.15427     -2.5658 ppb        0.15427   6.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.7      0.6740 µg/L       0.74189      0.6740 ppb        0.74189 110.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -2.4     -0.0055 µg/L       0.11824     -0.0055 ppb        0.11824 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -89.5     -0.0911 µg/L       0.06887     -0.0911 ppb        0.06887  75.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -6.1     -0.8178 µg/L       1.19565     -0.8178 ppb        1.19565 146.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                53.0      3.2957 µg/L       7.48152      3.2957 ppb        7.48152 227.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -78.1     -0.4107 µg/L       0.33575     -0.4107 ppb        0.33575  81.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               18.7      0.1152 µg/L       0.06972      0.1152 ppb        0.06972  60.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 15:54:07
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	152898.0	152898.0	103	%			15:54:41
1	Al 396.153Radial†	25494.9	24712.6	5069.0	µg/L	5069.0	ppb	15:54:41
1	Ca 317.933Radial†	88550.4	84917.2	5109.3	µg/L	5109.3	ppb	15:54:41
1	Fe 238.204 Radial†	78113.2	75383.3	5072.4	µg/L	5072.4	ppb	15:54:41
1	K 766.490 Radial†	14245.1	12460.1	5124.0	µg/L	5124.0	ppb	15:54:41
1	Mg 279.077 IEC†	13260.3	12651.9	5198.1	µg/L	5198.1	ppb	15:54:41
1	Na 589.592 Radial†	69947.5	66422.3	10081	µg/L	10081	ppb	15:54:41
1	Sr 421.552†	225954.2	218686.1	504.44	µg/L	504.44	ppb	15:54:39
1	Sc 361.383	1766476.2	1766476.2	100.65	%			15:54:53
1	Y 371.029	1056827.3	1056827.3	99.322	%			15:54:53
1	Ag 328.068†	130821.0	126529.7	509.27	µg/L	509.27	ppb	15:54:53
1	As 188.979†	1449.4	1457.7	516.01	µg/L	516.01	ppb	15:55:14
1	B 249.677†	34337.2	30885.3	501.79	µg/L	501.79	ppb	15:54:53
1	Ba 233.527†	116922.3	116330.0	506.93	µg/L	506.93	ppb	15:54:53
1	Be 313.107†	1701022.2	1690831.4	507.58	µg/L	507.58	ppb	15:54:53
1	Cd 226.502†	74763.6	74391.2	510.48	µg/L	510.48	ppb	15:54:53
1	Co 228.616†	37890.8	37818.7	511.76	µg/L	511.76	ppb	15:54:53
1	Cr 267.716†	60801.9	60231.0	507.36	µg/L	507.36	ppb	15:54:53
1	Cu 324.752†	123064.6	119481.6	505.05	µg/L	505.05	ppb	15:54:53
1	Mn 257.610†	383529.0	380878.5	508.87	µg/L	508.87	ppb	15:54:53
1	Mo 202.031†	16006.9	15938.4	507.45	µg/L	507.45	ppb	15:55:14
1	Ni 231.604†	40839.2	40653.6	511.33	µg/L	511.33	ppb	15:54:53
1	P 214.914†	10798.6	10723.9	2549.2	µg/L	2549.2	ppb	15:55:14
1	Pb 220.353†	8511.4	8359.5	513.46	µg/L	513.46	ppb	15:55:14
1	S 181.975 Axial†	1341.1	1244.7	1024.6	µg/L	1024.6	ppb	15:55:14
1	Sb 206.836†	3967.2	3863.5	507.74	µg/L	507.74	ppb	15:55:14
1	Se 196.026†	1297.6	1275.7	513	µg/L	513	ppb	15:55:14
1	SiO2†	53075.1	50979.5	5432.2	µg/L	5432.2	ppb	15:54:53
1	Si 251.611†	159406.2	157429.0	2538.1	µg/L	2538.1	ppb	15:54:53
1	Sn 189.927†	7400.1	7354.9	510.89	µg/L	510.89	ppb	15:55:14
1	Ti 334.940†	509982.0	505805.6	506.08	µg/L	506.08	ppb	15:54:53
1	Tl 190.801†	3697.9	3791.1	517.08	µg/L	517.08	ppb	15:55:14
1	U 409.014†	7385.3	7621.4	508.08	µg/L	508.08	ppb	15:54:53
1	V 292.402†	95602.3	94675.5	509.40	µg/L	509.40	ppb	15:54:53
1	Zn 213.857†	83405.4	82342.7	506.69	µg/L	506.69	ppb	15:54:53
2	Sc RADIAL	153813.3	153813.3	104	%			15:54:45
2	Al 396.153Radial†	25906.1	24961.2	5120.3	µg/L	5120.3	ppb	15:54:45
2	Ca 317.933Radial†	90324.6	86113.0	5181.2	µg/L	5181.2	ppb	15:54:45
2	Fe 238.204 Radial†	79894.0	76645.4	5157.4	µg/L	5157.4	ppb	15:54:45
2	K 766.490 Radial†	14489.5	12613.1	5186.9	µg/L	5186.9	ppb	15:54:45
2	Mg 279.077 IEC†	13565.2	12868.7	5286.9	µg/L	5286.9	ppb	15:54:45
2	Na 589.592 Radial†	71256.6	67278.0	10211	µg/L	10211	ppb	15:54:45
2	Sr 421.552†	230368.6	221628.8	511.22	µg/L	511.22	ppb	15:54:43
2	Sc 361.383	1761903.1	1761903.1	100.39	%			15:55:17
2	Y 371.029	1054491.7	1054491.7	99.102	%			15:55:17
2	Ag 328.068†	130499.2	126546.5	509.34	µg/L	509.34	ppb	15:55:17
2	As 188.979†	1426.1	1438.2	509.18	µg/L	509.18	ppb	15:55:37
2	B 249.677†	34599.7	31235.3	507.49	µg/L	507.49	ppb	15:55:17
2	Ba 233.527†	116559.6	116270.2	506.67	µg/L	506.67	ppb	15:55:17
2	Be 313.107†	1696997.8	1691209.1	507.69	µg/L	507.69	ppb	15:55:17
2	Cd 226.502†	74443.4	74265.1	509.60	µg/L	509.60	ppb	15:55:17
2	Co 228.616†	37855.1	37880.8	512.60	µg/L	512.60	ppb	15:55:17
2	Cr 267.716†	60290.1	59878.0	504.39	µg/L	504.39	ppb	15:55:17
2	Cu 324.752†	122978.4	119713.0	506.04	µg/L	506.04	ppb	15:55:17
2	Mn 257.610†	382160.3	380504.2	508.37	µg/L	508.37	ppb	15:55:17
2	Mo 202.031†	15939.1	15912.1	506.62	µg/L	506.62	ppb	15:55:37
2	Ni 231.604†	40586.6	40507.2	509.49	µg/L	509.49	ppb	15:55:17
2	P 214.914†	10736.5	10689.9	2541.1	µg/L	2541.1	ppb	15:55:37
2	Pb 220.353†	8464.9	8335.1	511.96	µg/L	511.96	ppb	15:55:37

2	S 181.975 Axial†	1327.2	1234.3	1016.1 µg/L	1016.1 ppb	15:55:37
2	Sb 206.836†	3978.2	3884.7	510.55 µg/L	510.55 ppb	15:55:37
2	Se 196.026†	1299.1	1280.5	515 µg/L	515 ppb	15:55:37
2	SiO2†	52598.8	50641.9	5396.2 µg/L	5396.2 ppb	15:55:17
2	Si 251.611†	158393.7	156831.4	2528.4 µg/L	2528.4 ppb	15:55:17
2	Sn 189.927†	7363.2	7337.2	509.67 µg/L	509.67 ppb	15:55:37
2	Ti 334.940†	508335.3	505480.4	505.75 µg/L	505.75 ppb	15:55:17
2	Tl 190.801†	3693.7	3796.5	517.79 µg/L	517.79 ppb	15:55:37
2	U 409.014†	7366.6	7621.9	508.14 µg/L	508.14 ppb	15:55:17
2	V 292.402†	95533.2	94853.3	510.32 µg/L	510.32 ppb	15:55:17
2	Zn 213.857†	83149.2	82302.5	506.44 µg/L	506.44 ppb	15:55:17
3	Sc RADIAL	153503.9	153503.9	104 %		15:54:49
3	Al 396.153Radial†	25953.2	25056.8	5139.8 µg/L	5139.8 ppb	15:54:49
3	Ca 317.933Radial†	89994.6	85970.1	5172.6 µg/L	5172.6 ppb	15:54:49
3	Fe 238.204 Radial†	79338.5	76265.2	5131.8 µg/L	5131.8 ppb	15:54:49
3	K 766.490 Radial†	14412.9	12567.4	5168.1 µg/L	5168.1 ppb	15:54:49
3	Mg 279.077 IEC†	13512.1	12843.9	5276.9 µg/L	5276.9 ppb	15:54:49
3	Na 589.592 Radial†	70773.4	66950.7	10162 µg/L	10162 ppb	15:54:49
3	Sr 421.552†	228639.3	220409.6	508.41 µg/L	508.41 ppb	15:54:47
3	Sc 361.383	1744601.8	1744601.8	99.403 %		15:55:40
3	Y 371.029	1045173.0	1045173.0	98.226 %		15:55:40
3	Ag 328.068†	129131.8	126460.1	509.00 µg/L	509.00 ppb	15:55:40
3	As 188.979†	1420.2	1446.5	512.07 µg/L	512.07 ppb	15:56:00
3	B 249.677†	33934.1	30907.5	502.15 µg/L	502.15 ppb	15:55:40
3	Ba 233.527†	115526.7	116382.5	507.16 µg/L	507.16 ppb	15:55:40
3	Be 313.107†	1678703.4	1689568.9	507.20 µg/L	507.20 ppb	15:55:40
3	Cd 226.502†	73616.8	74168.8	508.94 µg/L	508.94 ppb	15:55:40
3	Co 228.616†	37455.8	37853.1	512.22 µg/L	512.22 ppb	15:55:40
3	Cr 267.716†	59770.6	59950.9	505.00 µg/L	505.00 ppb	15:55:40
3	Cu 324.752†	121792.5	119734.9	506.13 µg/L	506.13 ppb	15:55:40
3	Mn 257.610†	378385.7	380482.1	508.34 µg/L	508.34 ppb	15:55:40
3	Mo 202.031†	15905.8	16036.1	510.56 µg/L	510.56 ppb	15:56:00
3	Ni 231.604†	40232.3	40551.8	510.05 µg/L	510.05 ppb	15:55:40
3	P 214.914†	10667.1	10726.2	2549.7 µg/L	2549.7 ppb	15:56:00
3	Pb 220.353†	8410.1	8363.6	513.72 µg/L	513.72 ppb	15:56:00
3	S 181.975 Axial†	1333.4	1253.7	1032.0 µg/L	1032.0 ppb	15:56:00
3	Sb 206.836†	3953.6	3899.3	512.51 µg/L	512.51 ppb	15:56:00
3	Se 196.026†	1280.3	1274.4	512 µg/L	512 ppb	15:56:00
3	SiO2†	52227.3	50787.7	5411.6 µg/L	5411.6 ppb	15:55:40
3	Si 251.611†	156966.4	156960.3	2530.4 µg/L	2530.4 ppb	15:55:40
3	Sn 189.927†	7357.1	7403.9	514.29 µg/L	514.29 ppb	15:56:00
3	Ti 334.940†	503753.2	505892.4	506.16 µg/L	506.16 ppb	15:55:40
3	Tl 190.801†	3662.1	3801.2	518.43 µg/L	518.43 ppb	15:56:00
3	U 409.014†	7305.2	7632.8	508.81 µg/L	508.81 ppb	15:55:40
3	V 292.402†	94531.3	94789.1	510.02 µg/L	510.02 ppb	15:55:40
3	Zn 213.857†	82414.1	82384.4	506.95 µg/L	506.95 ppb	15:55:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757660.4	100.15	%	0.657				0.66%
Sc RADIAL	153405.1	104	%	0.3				0.30%
Y 371.029	1052164.0	98.883	%	0.5795				0.59%
Ag 328.068†	126512.1	509.20	µg/L	0.182	509.20	ppb	0.182	0.04%
QC value within limits for Ag 328.068 Recovery = 101.84%								
Al 396.153Radial†	24910.2	5109.7	µg/L	36.55	5109.7	ppb	36.55	0.72%
QC value within limits for Al 396.153Radial Recovery = 102.19%								
As 188.979†	1447.5	512.42	µg/L	3.425	512.42	ppb	3.425	0.67%
QC value within limits for As 188.979 Recovery = 102.48%								
B 249.677†	31009.4	503.81	µg/L	3.194	503.81	ppb	3.194	0.63%
QC value within limits for B 249.677 Recovery = 100.76%								
Ba 233.527†	116327.6	506.92	µg/L	0.245	506.92	ppb	0.245	0.05%
QC value within limits for Ba 233.527 Recovery = 101.38%								
Be 313.107†	1690536.5	507.49	µg/L	0.258	507.49	ppb	0.258	0.05%
QC value within limits for Be 313.107 Recovery = 101.50%								
Ca 317.933Radial†	85666.7	5154.4	µg/L	39.29	5154.4	ppb	39.29	0.76%
QC value within limits for Ca 317.933Radial Recovery = 103.09%								
Cd 226.502†	74275.0	509.68	µg/L	0.769	509.68	ppb	0.769	0.15%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	37850.9	512.19	µg/L	0.418	512.19	ppb	0.418	0.08%

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   QC value within limits for Co 228.616  Recovery = 102.44%
Cr 267.716†            60020.0      505.58 µg/L         1.569      505.58 ppb          1.569   0.31%
   QC value within limits for Cr 267.716  Recovery = 101.12%
Cu 324.752†           119643.1      505.74 µg/L         0.599      505.74 ppb          0.599   0.12%
   QC value within limits for Cu 324.752  Recovery = 101.15%
Fe 238.204 Radial†     76097.9      5120.5 µg/L         43.57      5120.5 ppb          43.57   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.41%
K 766.490 Radial†      12546.8      5159.6 µg/L         32.29      5159.6 ppb          32.29   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 103.19%
Mg 279.077 IEC†        12788.2      5254.0 µg/L         48.64      5254.0 ppb          48.64   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.08%
Mn 257.610†           380621.6      508.52 µg/L         0.300      508.52 ppb          0.300   0.06%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            15962.2      508.21 µg/L         2.079      508.21 ppb          2.079   0.41%
   QC value within limits for Mo 202.031  Recovery = 101.64%
Na 589.592 Radial†     66883.7       10152 µg/L          65.5       10152 ppb           65.5   0.65%
   QC value within limits for Na 589.592 Radial  Recovery = 101.52%
Ni 231.604†            40570.9      510.29 µg/L         0.944      510.29 ppb          0.944   0.18%
   QC value within limits for Ni 231.604  Recovery = 102.06%
P 214.914†             10713.3      2546.7 µg/L          4.86      2546.7 ppb           4.86   0.19%
   QC value within limits for P 214.914  Recovery = 101.87%
Pb 220.353†             8352.7      513.05 µg/L         0.948      513.05 ppb          0.948   0.18%
   QC value within limits for Pb 220.353  Recovery = 102.61%
S 181.975 Axial†        1244.2      1024.2 µg/L          7.94      1024.2 ppb           7.94   0.78%
   QC value within limits for S 181.975 Axial  Recovery = 102.42%
Sb 206.836†             3882.5      510.27 µg/L         2.400      510.27 ppb          2.400   0.47%
   QC value within limits for Sb 206.836  Recovery = 102.05%
Se 196.026†             1276.9         513 µg/L           1.3         513 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 102.67%
SiO2†                  50803.0      5413.3 µg/L         18.10      5413.3 ppb          18.10   0.33%
   QC value within limits for SiO2  Recovery = 101.23%
Si 251.611†           157073.6      2532.3 µg/L          5.09      2532.3 ppb           5.09   0.20%
   QC value within limits for Si 251.611  Recovery = 101.29%
Sn 189.927†             7365.3      511.62 µg/L         2.390      511.62 ppb          2.390   0.47%
   QC value within limits for Sn 189.927  Recovery = 102.32%
Sr 421.552†           220241.5      508.02 µg/L         3.410      508.02 ppb          3.410   0.67%
   QC value within limits for Sr 421.552  Recovery = 101.60%
Ti 334.940†           505726.1      506.00 µg/L         0.218      506.00 ppb          0.218   0.04%
   QC value within limits for Ti 334.940  Recovery = 101.20%
Tl 190.801†             3796.3      517.77 µg/L         0.678      517.77 ppb          0.678   0.13%
   QC value within limits for Tl 190.801  Recovery = 103.55%
U 409.014†              7625.4      508.34 µg/L         0.406      508.34 ppb          0.406   0.08%
   QC value within limits for U 409.014  Recovery = 101.67%
V 292.402†             94772.6      509.91 µg/L         0.466      509.91 ppb          0.466   0.09%
   QC value within limits for V 292.402  Recovery = 101.98%
Zn 213.857†            82343.2      506.69 µg/L         0.254      506.69 ppb          0.254   0.05%
   QC value within limits for Zn 213.857  Recovery = 101.34%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 15:56:07
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	151439.2	151439.2	102	%			15:56:36
1	Al 396.153Radial†	-72.0	-7.4	-1.5426	µg/L	-1.5426	ppb	15:56:56
1	Ca 317.933Radial†	616.3	-96.4	-5.7988	µg/L	-5.7988	ppb	15:56:56
1	Fe 238.204 Radial†	169.0	24.3	1.6349	µg/L	1.6349	ppb	15:56:56
1	K 766.490 Radial†	1445.7	98.4	40.501	µg/L	40.501	ppb	15:56:36
1	Mg 279.077 IEC†	154.2	-18.3	-7.4960	µg/L	-7.4960	ppb	15:56:56
1	Na 589.592 Radial†	1619.2	374.0	56.749	µg/L	56.749	ppb	15:56:36
1	Sr 421.552†	-165.2	60.4	0.1393	µg/L	0.1393	ppb	15:56:36
1	Sc 361.383	1780635.7	1780635.7	101.46	%			15:57:44
1	Y 371.029	1078953.6	1078953.6	101.40	%			15:57:44
1	Ag 328.068†	3244.7	-249.0	-0.9690	µg/L	-0.9690	ppb	15:57:46
1	As 188.979†	-21.9	-3.9	-1.3519	µg/L	-1.3519	ppb	15:58:06
1	B 249.677†	3281.0	3.6	0.0578	µg/L	0.0578	ppb	15:58:06
1	Ba 233.527†	-154.7	9.6	0.0424	µg/L	0.0424	ppb	15:58:06
1	Be 313.107†	-762.3	34.2	0.0139	µg/L	0.0139	ppb	15:57:46
1	Cd 226.502†	-101.4	10.1	0.0691	µg/L	0.0691	ppb	15:58:06
1	Co 228.616†	-173.3	1.6	0.0220	µg/L	0.0220	ppb	15:58:06
1	Cr 267.716†	179.0	-2.1	-0.0268	µg/L	-0.0268	ppb	15:58:06
1	Cu 324.752†	2941.0	109.8	0.4727	µg/L	0.4727	ppb	15:57:46
1	Mn 257.610†	182.1	3.9	0.0055	µg/L	0.0055	ppb	15:58:06
1	Mo 202.031†	-29.1	6.1	0.1930	µg/L	0.1930	ppb	15:58:06
1	Ni 231.604†	-53.4	25.3	0.3179	µg/L	0.3179	ppb	15:58:06
1	P 214.914†	-6.7	-11.6	-2.7718	µg/L	-2.7718	ppb	15:58:06
1	Pb 220.353†	74.0	-24.0	-1.4785	µg/L	-1.4785	ppb	15:58:06
1	S 181.975 Axial†	91.2	2.2	1.8313	µg/L	1.8313	ppb	15:58:06
1	Sb 206.836†	88.4	9.1	1.1933	µg/L	1.1933	ppb	15:58:06
1	Se 196.026†	5.5	-8.2	-3.26	µg/L	-3.26	ppb	15:58:06
1	SiO2†	1722.5	-55.4	-5.9330	µg/L	-5.9330	ppb	15:58:06
1	Si 251.611†	814.0	-146.4	-2.3730	µg/L	-2.3730	ppb	15:57:46
1	Sn 189.927†	0.5	3.0	0.2076	µg/L	0.2076	ppb	15:58:06
1	Ti 334.940†	800.0	-97.0	-0.1016	µg/L	-0.1016	ppb	15:57:46
1	Tl 190.801†	-108.0	10.6	1.4336	µg/L	1.4336	ppb	15:58:06
1	U 409.014†	-95.3	189.8	11.916	µg/L	11.916	ppb	15:57:46
1	V 292.402†	409.5	93.8	0.5079	µg/L	0.5079	ppb	15:57:46
1	Zn 213.857†	545.2	12.8	0.0767	µg/L	0.0767	ppb	15:58:06
2	Sc RADIAL	151193.9	151193.9	102	%			15:56:58
2	Al 396.153Radial†	-43.5	20.3	4.1777	µg/L	4.1777	ppb	15:57:18
2	Ca 317.933Radial†	606.3	-105.1	-6.3262	µg/L	-6.3262	ppb	15:57:18
2	Fe 238.204 Radial†	149.4	5.4	0.3634	µg/L	0.3634	ppb	15:57:18
2	K 766.490 Radial†	1567.7	220.0	90.539	µg/L	90.539	ppb	15:56:58
2	Mg 279.077 IEC†	165.7	-6.8	-2.7730	µg/L	-2.7730	ppb	15:57:18
2	Na 589.592 Radial†	1434.7	196.2	29.707	µg/L	29.707	ppb	15:56:58
2	Sr 421.552†	-144.2	80.6	0.1860	µg/L	0.1860	ppb	15:56:58
2	Sc 361.383	1788543.9	1788543.9	101.91	%			15:58:08
2	Y 371.029	1084926.2	1084926.2	101.96	%			15:58:08
2	Ag 328.068†	3467.9	-44.1	-0.1775	µg/L	-0.1775	ppb	15:58:10
2	As 188.979†	-14.5	3.4	1.1993	µg/L	1.1993	ppb	15:58:31
2	B 249.677†	3282.6	-9.2	-0.1495	µg/L	-0.1495	ppb	15:58:31
2	Ba 233.527†	-160.2	5.0	0.0214	µg/L	0.0214	ppb	15:58:31
2	Be 313.107†	-876.6	-74.6	-0.0216	µg/L	-0.0216	ppb	15:58:10
2	Cd 226.502†	-88.5	23.2	0.1594	µg/L	0.1594	ppb	15:58:31
2	Co 228.616†	-168.8	6.8	0.0915	µg/L	0.0915	ppb	15:58:31
2	Cr 267.716†	172.5	-9.3	-0.0809	µg/L	-0.0809	ppb	15:58:31
2	Cu 324.752†	2798.2	-43.1	-0.1793	µg/L	-0.1793	ppb	15:58:10
2	Mn 257.610†	188.0	8.9	0.0120	µg/L	0.0120	ppb	15:58:31
2	Mo 202.031†	-30.5	4.8	0.1539	µg/L	0.1539	ppb	15:58:31
2	Ni 231.604†	-56.6	22.4	0.2813	µg/L	0.2813	ppb	15:58:31
2	P 214.914†	16.7	11.4	2.7279	µg/L	2.7279	ppb	15:58:31
2	Pb 220.353†	87.8	-10.8	-0.6657	µg/L	-0.6657	ppb	15:58:31

2	S 181.975 Axial†	84.4	-4.9	-3.9753 µg/L	-3.9753 ppb	15:58:31
2	Sb 206.836†	83.3	3.7	0.4863 µg/L	0.4863 ppb	15:58:31
2	Se 196.026†	10.9	-2.8	-1.14 µg/L	-1.14 ppb	15:58:31
2	SiO2†	1694.0	-90.8	-9.7342 µg/L	-9.7342 ppb	15:58:31
2	Si 251.611†	679.6	-281.8	-4.5682 µg/L	-4.5682 ppb	15:58:10
2	Sn 189.927†	8.5	10.8	0.7504 µg/L	0.7504 ppb	15:58:31
2	Ti 334.940†	780.2	-120.0	-0.1212 µg/L	-0.1212 ppb	15:58:10
2	Tl 190.801†	-120.1	-0.8	-0.1139 µg/L	-0.1139 ppb	15:58:31
2	U 409.014†	-244.9	43.5	2.6943 µg/L	2.6943 ppb	15:58:10
2	V 292.402†	222.5	-91.5	-0.4827 µg/L	-0.4827 ppb	15:58:10
2	Zn 213.857†	522.6	-11.7	-0.0744 µg/L	-0.0744 ppb	15:58:31
3	Sc RADIAL	154076.6	154076.6	104 %		15:57:20
3	Al 396.153Radial†	-54.3	10.8	2.1942 µg/L	2.1942 ppb	15:57:40
3	Ca 317.933Radial†	596.1	-126.0	-7.5815 µg/L	-7.5815 ppb	15:57:40
3	Fe 238.204 Radial†	155.3	8.3	0.5568 µg/L	0.5568 ppb	15:57:40
3	K 766.490 Radial†	1553.2	177.5	73.025 µg/L	73.025 ppb	15:57:20
3	Mg 279.077 IEC†	169.5	-6.1	-2.5093 µg/L	-2.5093 ppb	15:57:40
3	Na 589.592 Radial†	1594.2	322.9	48.967 µg/L	48.967 ppb	15:57:20
3	Sr 421.552†	-178.8	50.1	0.1157 µg/L	0.1157 ppb	15:57:20
3	Sc 361.383	1782784.5	1782784.5	101.58 %		15:58:33
3	Y 371.029	1079758.6	1079758.6	101.48 %		15:58:33
3	Ag 328.068†	3519.5	17.7	0.0810 µg/L	0.0810 ppb	15:58:35
3	As 188.979†	-20.0	-2.0	-0.7016 µg/L	-0.7016 ppb	15:58:55
3	B 249.677†	3260.4	-20.6	-0.3346 µg/L	-0.3346 ppb	15:58:55
3	Ba 233.527†	-168.8	-4.1	-0.0174 µg/L	-0.0174 ppb	15:58:55
3	Be 313.107†	-744.6	52.6	0.0175 µg/L	0.0175 ppb	15:58:35
3	Cd 226.502†	-119.6	-7.7	-0.0530 µg/L	-0.0530 ppb	15:58:55
3	Co 228.616†	-192.4	-17.0	-0.2302 µg/L	-0.2302 ppb	15:58:55
3	Cr 267.716†	193.8	12.2	0.0986 µg/L	0.0986 ppb	15:58:55
3	Cu 324.752†	2820.2	-12.5	-0.0483 µg/L	-0.0483 ppb	15:58:35
3	Mn 257.610†	192.7	14.1	0.0190 µg/L	0.0190 ppb	15:58:55
3	Mo 202.031†	-18.1	16.9	0.5389 µg/L	0.5389 ppb	15:58:55
3	Ni 231.604†	-65.1	13.9	0.1742 µg/L	0.1742 ppb	15:58:55
3	P 214.914†	28.6	23.1	5.5155 µg/L	5.5155 ppb	15:58:55
3	Pb 220.353†	86.4	-11.9	-0.7331 µg/L	-0.7331 ppb	15:58:55
3	S 181.975 Axial†	100.3	11.1	9.0775 µg/L	9.0775 ppb	15:58:55
3	Sb 206.836†	82.3	2.9	0.3909 µg/L	0.3909 ppb	15:58:55
3	Se 196.026†	27.7	13.7	5.49 µg/L	5.49 ppb	15:58:55
3	SiO2†	1706.2	-73.4	-7.8720 µg/L	-7.8720 ppb	15:58:55
3	Si 251.611†	625.5	-332.9	-5.3961 µg/L	-5.3961 ppb	15:58:35
3	Sn 189.927†	-0.2	2.4	0.1627 µg/L	0.1627 ppb	15:58:55
3	Ti 334.940†	859.2	-39.7	-0.0422 µg/L	-0.0422 ppb	15:58:35
3	Tl 190.801†	-110.1	8.7	1.1743 µg/L	1.1743 ppb	15:58:55
3	U 409.014†	-196.3	90.5	5.6852 µg/L	5.6852 ppb	15:58:35
3	V 292.402†	371.6	56.0	0.3070 µg/L	0.3070 ppb	15:58:35
3	Zn 213.857†	538.8	5.9	0.0355 µg/L	0.0355 ppb	15:58:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783988.0	101.65	%	0.233				0.23%
Sc RADIAL	152236.5	103	%	1.1				1.05%
Y 371.029	1081212.8	101.61	%	0.305				0.30%
Ag 328.068†	-91.8	-0.3551	µg/L	0.54711	-0.3551	ppb	0.54711	154.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.9	1.6098	µg/L	2.90460	1.6098	ppb	2.90460	180.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.8	-0.2847	µg/L	1.32573	-0.2847	ppb	1.32573	465.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-8.7	-0.1421	µg/L	0.19630	-0.1421	ppb	0.19630	138.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.5	0.0155	µg/L	0.03030	0.0155	ppb	0.03030	196.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	4.1	0.0033	µg/L	0.02159	0.0033	ppb	0.02159	661.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-109.2	-6.5688	µg/L	0.91577	-6.5688	ppb	0.91577	13.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.5	0.0585	µg/L	0.10659	0.0585	ppb	0.10659	182.23%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.9	-0.0389	µg/L	0.16924	-0.0389	ppb	0.16924	435.19%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.3     -0.0031 µg/L       0.09209     -0.0031 ppb        0.09209 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               18.1      0.0817 µg/L       0.34488      0.0817 ppb        0.34488 421.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        12.7      0.8517 µg/L       0.68511      0.8517 ppb        0.68511  80.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        165.3      68.022 µg/L       25.3917      68.022 ppb        25.3917  37.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.4     -4.2595 µg/L       2.80607     -4.2595 ppb        2.80607  65.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                9.0      0.0122 µg/L       0.00674      0.0122 ppb        0.00674  55.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.3      0.2953 µg/L       0.21192      0.2953 ppb        0.21192  71.77%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       297.7      45.141 µg/L       13.9213      45.141 ppb        13.9213  30.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               20.5      0.2578 µg/L       0.07467      0.2578 ppb        0.07467  28.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 7.7      1.8239 µg/L       4.21694      1.8239 ppb        4.21694 231.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -15.6     -0.9591 µg/L       0.45107     -0.9591 ppb        0.45107  47.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.8      2.3112 µg/L       6.53963      2.3112 ppb        6.53963 282.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.2      0.6902 µg/L       0.43831      0.6902 ppb        0.43831  63.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.9       0.365 µg/L        4.5653       0.365 ppb         4.5653 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -73.2     -7.8464 µg/L       1.90075     -7.8464 ppb        1.90075  24.22%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -253.7     -4.1124 µg/L       1.56225     -4.1124 ppb        1.56225  37.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      0.3736 µg/L       0.32709      0.3736 ppb        0.32709  87.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               63.7      0.1470 µg/L       0.03582      0.1470 ppb        0.03582  24.37%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -85.6     -0.0883 µg/L       0.04118     -0.0883 ppb        0.04118  46.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.8313 µg/L       0.82883      0.8313 ppb        0.82883  99.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               107.9      6.7652 µg/L       4.70490      6.7652 ppb        4.70490  69.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                19.4      0.1107 µg/L       0.52363      0.1107 ppb        0.52363 472.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                2.3      0.0126 µg/L       0.07813      0.0126 ppb        0.07813 619.86%
   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: 7
Date Collected: 3/30/2010 16:14:43
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	149150.0	149150.0	101	%			16:15:17
1	Al 396.153Radial†	25269.6	25108.8	5150.9	µg/L	5150.9	ppb	16:15:17
1	Ca 317.933Radial†	86235.0	84773.7	5100.6	µg/L	5100.6	ppb	16:15:17
1	Fe 238.204 Radial†	76185.8	75370.7	5071.6	µg/L	5071.6	ppb	16:15:17
1	K 766.490 Radial†	14043.6	12606.4	5184.2	µg/L	5184.2	ppb	16:15:17
1	Mg 279.077 IEC†	12863.8	12581.1	5168.9	µg/L	5168.9	ppb	16:15:17
1	Na 589.592 Radial†	68590.1	66776.4	10135	µg/L	10135	ppb	16:15:17
1	Sr 421.552†	226232.4	224451.5	517.74	µg/L	517.74	ppb	16:15:15
1	Sc 361.383	1743830.1	1743830.1	99.359	%			16:15:30
1	Y 371.029	1045853.2	1045853.2	98.290	%			16:15:30
1	Ag 328.068†	129026.3	126411.4	508.82	µg/L	508.82	ppb	16:15:30
1	As 188.979†	1380.4	1407.0	498.27	µg/L	498.27	ppb	16:15:50
1	B 249.677†	33705.9	30692.9	498.66	µg/L	498.66	ppb	16:15:30
1	Ba 233.527†	115037.9	115942.0	505.24	µg/L	505.24	ppb	16:15:30
1	Be 313.107†	1673671.2	1685251.5	505.91	µg/L	505.91	ppb	16:15:30
1	Cd 226.502†	72899.8	73480.1	504.22	µg/L	504.22	ppb	16:15:30
1	Co 228.616†	37152.7	37564.8	508.33	µg/L	508.33	ppb	16:15:30
1	Cr 267.716†	59737.2	59944.0	504.93	µg/L	504.93	ppb	16:15:30
1	Cu 324.752†	121910.0	119907.4	506.85	µg/L	506.85	ppb	16:15:30
1	Mn 257.610†	377168.2	379425.3	506.93	µg/L	506.93	ppb	16:15:30
1	Mo 202.031†	15653.7	15789.4	502.71	µg/L	502.71	ppb	16:15:50
1	Ni 231.604†	39991.2	40327.0	507.22	µg/L	507.22	ppb	16:15:30
1	P 214.914†	10343.3	10405.0	2473.1	µg/L	2473.1	ppb	16:15:50
1	Pb 220.353†	8250.5	8206.7	504.09	µg/L	504.09	ppb	16:15:50
1	S 181.975 Axial†	1280.3	1200.9	988.62	µg/L	988.62	ppb	16:15:50
1	Sb 206.836†	3859.6	3806.5	500.20	µg/L	500.20	ppb	16:15:50
1	Se 196.026†	1249.2	1243.7	500	µg/L	500	ppb	16:15:50
1	SiO2†	51956.5	50538.4	5385.4	µg/L	5385.4	ppb	16:15:30
1	Si 251.611†	156244.0	156303.0	2520.0	µg/L	2520.0	ppb	16:15:30
1	Sn 189.927†	7115.0	7163.4	497.64	µg/L	497.64	ppb	16:15:50
1	Ti 334.940†	504315.4	506682.5	506.96	µg/L	506.96	ppb	16:15:30
1	Tl 190.801†	3596.9	3737.2	509.85	µg/L	509.85	ppb	16:15:50
1	U 409.014†	7486.7	7818.7	520.48	µg/L	520.48	ppb	16:15:30
1	V 292.402†	94549.0	94848.9	510.27	µg/L	510.27	ppb	16:15:30
1	Zn 213.857†	81765.0	81767.8	503.15	µg/L	503.15	ppb	16:15:30
2	Sc RADIAL	149765.3	149765.3	101	%			16:15:21
2	Al 396.153Radial†	25441.5	25175.6	5164.4	µg/L	5164.4	ppb	16:15:21
2	Ca 317.933Radial†	86840.7	85020.4	5115.5	µg/L	5115.5	ppb	16:15:21
2	Fe 238.204 Radial†	76775.6	75642.7	5089.9	µg/L	5089.9	ppb	16:15:21
2	K 766.490 Radial†	14122.8	12627.5	5192.8	µg/L	5192.8	ppb	16:15:21
2	Mg 279.077 IEC†	13015.9	12678.9	5209.2	µg/L	5209.2	ppb	16:15:21
2	Na 589.592 Radial†	68934.4	66836.9	10144	µg/L	10144	ppb	16:15:21
2	Sr 421.552†	225922.3	223224.2	514.90	µg/L	514.90	ppb	16:15:19
2	Sc 361.383	1730132.7	1730132.7	98.579	%			16:15:53
2	Y 371.029	1036374.9	1036374.9	97.400	%			16:15:53
2	Ag 328.068†	128093.5	126493.2	509.15	µg/L	509.15	ppb	16:15:53
2	As 188.979†	1394.4	1432.2	507.08	µg/L	507.08	ppb	16:16:13
2	B 249.677†	33578.7	30832.5	500.93	µg/L	500.93	ppb	16:15:53
2	Ba 233.527†	114507.8	116320.9	506.89	µg/L	506.89	ppb	16:15:53
2	Be 313.107†	1660528.3	1685255.0	505.90	µg/L	505.90	ppb	16:15:53
2	Cd 226.502†	72288.3	73440.5	503.95	µg/L	503.95	ppb	16:15:53
2	Co 228.616†	36888.2	37592.4	508.70	µg/L	508.70	ppb	16:15:53
2	Cr 267.716†	59261.1	59936.9	504.88	µg/L	504.88	ppb	16:15:53
2	Cu 324.752†	120688.4	119639.5	505.72	µg/L	505.72	ppb	16:15:53
2	Mn 257.610†	374567.3	379792.1	507.42	µg/L	507.42	ppb	16:15:53
2	Mo 202.031†	15682.3	15943.1	507.60	µg/L	507.60	ppb	16:16:13
2	Ni 231.604†	39635.9	40285.2	506.70	µg/L	506.70	ppb	16:15:53
2	P 214.914†	10438.2	10583.7	2515.7	µg/L	2515.7	ppb	16:16:13
2	Pb 220.353†	8260.4	8282.6	508.75	µg/L	508.75	ppb	16:16:13

2	S 181.975 Axial†	1292.4	1223.3	1007.1 µg/L	1007.1 ppb	16:16:13
2	Sb 206.836†	3885.2	3863.2	507.73 µg/L	507.73 ppb	16:16:13
2	Se 196.026†	1263.8	1268.5	510 µg/L	510 ppb	16:16:13
2	SiO2†	51585.6	50576.2	5389.2 µg/L	5389.2 ppb	16:15:53
2	Si 251.611†	155023.4	156309.8	2520.0 µg/L	2520.0 ppb	16:15:53
2	Sn 189.927†	7177.9	7284.0	505.99 µg/L	505.99 ppb	16:16:13
2	Ti 334.940†	500412.6	506741.9	507.01 µg/L	507.01 ppb	16:15:53
2	Tl 190.801†	3606.0	3775.0	514.95 µg/L	514.95 ppb	16:16:13
2	U 409.014†	7358.1	7747.9	516.08 µg/L	516.08 ppb	16:15:53
2	V 292.402†	93924.9	94969.3	510.96 µg/L	510.96 ppb	16:15:53
2	Zn 213.857†	80946.3	81588.8	502.04 µg/L	502.04 ppb	16:15:53
3	Sc RADIAL	149946.8	149946.8	101 %		16:15:25
3	Al 396.153Radial†	25414.1	25118.2	5152.4 µg/L	5152.4 ppb	16:15:25
3	Ca 317.933Radial†	86403.6	84485.8	5083.3 µg/L	5083.3 ppb	16:15:25
3	Fe 238.204 Radial†	76499.4	75278.7	5065.4 µg/L	5065.4 ppb	16:15:25
3	K 766.490 Radial†	13924.5	12415.1	5105.4 µg/L	5105.4 ppb	16:15:25
3	Mg 279.077 IEC†	12917.9	12566.7	5163.3 µg/L	5163.3 ppb	16:15:25
3	Na 589.592 Radial†	68643.3	66467.5	10088 µg/L	10088 ppb	16:15:25
3	Sr 421.552†	226189.9	223218.1	514.89 µg/L	514.89 ppb	16:15:23
3	Sc 361.383	1725431.7	1725431.7	98.311 %		16:16:16
3	Y 371.029	1034770.8	1034770.8	97.249 %		16:16:16
3	Ag 328.068†	128336.4	127094.3	511.56 µg/L	511.56 ppb	16:16:16
3	As 188.979†	1389.6	1431.2	506.75 µg/L	506.75 ppb	16:16:36
3	B 249.677†	33509.2	30854.7	501.29 µg/L	501.29 ppb	16:16:16
3	Ba 233.527†	114602.5	116733.7	508.69 µg/L	508.69 ppb	16:16:16
3	Be 313.107†	1661309.7	1690639.2	507.52 µg/L	507.52 ppb	16:16:16
3	Cd 226.502†	72576.2	73933.2	507.33 µg/L	507.33 ppb	16:16:16
3	Co 228.616†	37001.5	37809.7	511.64 µg/L	511.64 ppb	16:16:16
3	Cr 267.716†	59258.1	60097.7	506.23 µg/L	506.23 ppb	16:16:16
3	Cu 324.752†	120857.8	120145.4	507.86 µg/L	507.86 ppb	16:16:16
3	Mn 257.610†	375185.0	381455.7	509.64 µg/L	509.64 ppb	16:16:16
3	Mo 202.031†	15775.7	16081.5	512.00 µg/L	512.00 ppb	16:16:36
3	Ni 231.604†	39815.9	40577.9	510.38 µg/L	510.38 ppb	16:16:16
3	P 214.914†	10530.8	10706.7	2545.1 µg/L	2545.1 ppb	16:16:36
3	Pb 220.353†	8329.8	8376.0	514.48 µg/L	514.48 ppb	16:16:36
3	S 181.975 Axial†	1303.5	1238.2	1019.3 µg/L	1019.3 ppb	16:16:36
3	Sb 206.836†	3907.5	3896.6	512.17 µg/L	512.17 ppb	16:16:36
3	Se 196.026†	1269.8	1278.0	514 µg/L	514 ppb	16:16:36
3	SiO2†	51617.4	50751.2	5407.7 µg/L	5407.7 ppb	16:16:16
3	Si 251.611†	155063.4	156779.0	2527.5 µg/L	2527.5 ppb	16:16:16
3	Sn 189.927†	7252.3	7379.4	512.60 µg/L	512.60 ppb	16:16:36
3	Ti 334.940†	500784.6	508503.3	508.78 µg/L	508.78 ppb	16:16:16
3	Tl 190.801†	3630.7	3810.1	519.68 µg/L	519.68 ppb	16:16:36
3	U 409.014†	7461.6	7873.5	524.02 µg/L	524.02 ppb	16:16:16
3	V 292.402†	93864.9	95167.9	512.07 µg/L	512.07 ppb	16:16:16
3	Zn 213.857†	81102.7	81971.6	504.39 µg/L	504.39 ppb	16:16:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1733131.5	98.750	%	0.5446				0.55%
Sc RADIAL	149620.7	101	%	0.3				0.28%
Y 371.029	1038999.7	97.646	%	0.5629				0.58%
Ag 328.068†	126666.3	509.84	µg/L	1.496	509.84	ppb	1.496	0.29%
QC value within limits for Ag 328.068 Recovery = 101.97%								
Al 396.153Radial†	25134.2	5155.9	µg/L	7.42	5155.9	ppb	7.42	0.14%
QC value within limits for Al 396.153Radial Recovery = 103.12%								
As 188.979†	1423.5	504.03	µg/L	4.990	504.03	ppb	4.990	0.99%
QC value within limits for As 188.979 Recovery = 100.81%								
B 249.677†	30793.4	500.29	µg/L	1.425	500.29	ppb	1.425	0.28%
QC value within limits for B 249.677 Recovery = 100.06%								
Ba 233.527†	116332.2	506.94	µg/L	1.726	506.94	ppb	1.726	0.34%
QC value within limits for Ba 233.527 Recovery = 101.39%								
Be 313.107†	1687048.6	506.44	µg/L	0.934	506.44	ppb	0.934	0.18%
QC value within limits for Be 313.107 Recovery = 101.29%								
Ca 317.933Radial†	84760.0	5099.8	µg/L	16.10	5099.8	ppb	16.10	0.32%
QC value within limits for Ca 317.933Radial Recovery = 102.00%								
Cd 226.502†	73617.9	505.17	µg/L	1.882	505.17	ppb	1.882	0.37%
QC value within limits for Cd 226.502 Recovery = 101.03%								
Co 228.616†	37655.6	509.56	µg/L	1.816	509.56	ppb	1.816	0.36%

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   QC value within limits for Co 228.616  Recovery = 101.91%
Cr 267.716†            59992.9      505.35 µg/L         0.763      505.35 ppb          0.763   0.15%
   QC value within limits for Cr 267.716  Recovery = 101.07%
Cu 324.752†           119897.4      506.81 µg/L         1.068      506.81 ppb          1.068   0.21%
   QC value within limits for Cu 324.752  Recovery = 101.36%
Fe 238.204 Radial†     75430.7      5075.6 µg/L         12.74      5075.6 ppb          12.74   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.51%
K 766.490 Radial†      12549.7      5160.8 µg/L         48.15      5160.8 ppb          48.15   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 103.22%
Mg 279.077 IEC†        12608.9      5180.5 µg/L         25.01      5180.5 ppb          25.01   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.61%
Mn 257.610†           380224.4      508.00 µg/L         1.447      508.00 ppb          1.447   0.28%
   QC value within limits for Mn 257.610  Recovery = 101.60%
Mo 202.031†            15938.0      507.44 µg/L         4.647      507.44 ppb          4.647   0.92%
   QC value within limits for Mo 202.031  Recovery = 101.49%
Na 589.592 Radial†     66693.6       10123 µg/L          30.0       10123 ppb           30.0   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 101.23%
Ni 231.604†            40396.7      508.10 µg/L         1.991      508.10 ppb          1.991   0.39%
   QC value within limits for Ni 231.604  Recovery = 101.62%
P 214.914†             10565.1      2511.3 µg/L         36.21      2511.3 ppb          36.21   1.44%
   QC value within limits for P 214.914  Recovery = 100.45%
Pb 220.353†             8288.4      509.11 µg/L         5.203      509.11 ppb          5.203   1.02%
   QC value within limits for Pb 220.353  Recovery = 101.82%
S 181.975 Axial†        1220.8      1005.0 µg/L         15.45      1005.0 ppb          15.45   1.54%
   QC value within limits for S 181.975 Axial  Recovery = 100.50%
Sb 206.836†             3855.4      506.70 µg/L         6.046      506.70 ppb          6.046   1.19%
   QC value within limits for Sb 206.836  Recovery = 101.34%
Se 196.026†             1263.4         508 µg/L           7.1         508 ppb            7.1   1.40%
   QC value within limits for Se 196.026  Recovery = 101.59%
SiO2†                  50621.9      5394.1 µg/L         11.92      5394.1 ppb          11.92   0.22%
   QC value within limits for SiO2  Recovery = 100.87%
Si 251.611†           156464.0      2522.5 µg/L          4.32      2522.5 ppb           4.32   0.17%
   QC value within limits for Si 251.611  Recovery = 100.90%
Sn 189.927†             7275.6      505.41 µg/L         7.497      505.41 ppb          7.497   1.48%
   QC value within limits for Sn 189.927  Recovery = 101.08%
Sr 421.552†           223631.3      515.84 µg/L         1.639      515.84 ppb          1.639   0.32%
   QC value within limits for Sr 421.552  Recovery = 103.17%
Ti 334.940†           507309.2      507.58 µg/L         1.036      507.58 ppb          1.036   0.20%
   QC value within limits for Ti 334.940  Recovery = 101.52%
Tl 190.801†             3774.1      514.82 µg/L         4.916      514.82 ppb          4.916   0.95%
   QC value within limits for Tl 190.801  Recovery = 102.96%
U 409.014†              7813.4      520.19 µg/L         3.979      520.19 ppb          3.979   0.76%
   QC value within limits for U 409.014  Recovery = 104.04%
V 292.402†             94995.4      511.10 µg/L         0.907      511.10 ppb          0.907   0.18%
   QC value within limits for V 292.402  Recovery = 102.22%
Zn 213.857†            81776.1      503.20 µg/L         1.177      503.20 ppb          1.177   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 10 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 16:16:44**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152510.8	152510.8	103	%			16:17:13
1	Al 396.153Radial†	-68.3	-3.3	-0.6778	µg/L	-0.6778	ppb	16:17:33
1	Ca 317.933Radial†	643.7	-74.0	-4.4537	µg/L	-4.4537	ppb	16:17:33
1	Fe 238.204 Radial†	170.7	24.8	1.6683	µg/L	1.6683	ppb	16:17:33
1	K 766.490 Radial†	1615.7	253.3	104.22	µg/L	104.22	ppb	16:17:13
1	Mg 279.077 IEC†	181.7	7.3	3.0013	µg/L	3.0013	ppb	16:17:33
1	Na 589.592 Radial†	1660.0	402.4	61.015	µg/L	61.015	ppb	16:17:13
1	Sr 421.552†	-303.7	-72.7	-0.1677	µg/L	-0.1677	ppb	16:17:13
1	Sc 361.383	1759072.3	1759072.3	100.23	%			16:18:35
1	Y 371.029	1067700.7	1067700.7	100.34	%			16:18:35
1	Ag 328.068†	3299.8	-154.8	-0.6092	µg/L	-0.6092	ppb	16:18:37
1	As 188.979†	-9.7	8.0	2.7973	µg/L	2.7973	ppb	16:18:57
1	B 249.677†	3239.6	1.9	0.0316	µg/L	0.0316	ppb	16:18:57
1	Ba 233.527†	-126.7	35.8	0.1559	µg/L	0.1559	ppb	16:18:57
1	Be 313.107†	-608.6	178.4	0.0540	µg/L	0.0540	ppb	16:18:37
1	Cd 226.502†	-84.9	25.3	0.1738	µg/L	0.1738	ppb	16:18:57
1	Co 228.616†	-181.9	-9.1	-0.1227	µg/L	-0.1227	ppb	16:18:57
1	Cr 267.716†	197.4	18.4	0.1538	µg/L	0.1538	ppb	16:18:57
1	Cu 324.752†	2726.7	-68.4	-0.2868	µg/L	-0.2868	ppb	16:18:37
1	Mn 257.610†	182.0	6.0	0.0078	µg/L	0.0078	ppb	16:18:57
1	Mo 202.031†	-34.1	0.7	0.0222	µg/L	0.0222	ppb	16:18:57
1	Ni 231.604†	-52.6	25.4	0.3196	µg/L	0.3196	ppb	16:18:57
1	P 214.914†	19.6	14.5	3.4755	µg/L	3.4755	ppb	16:18:57
1	Pb 220.353†	72.0	-25.1	-1.5369	µg/L	-1.5369	ppb	16:18:57
1	S 181.975 Axial†	79.9	-7.9	-6.5165	µg/L	-6.5165	ppb	16:18:57
1	Sb 206.836†	94.4	16.1	2.1104	µg/L	2.1104	ppb	16:18:57
1	Se 196.026†	15.5	1.9	0.753	µg/L	0.753	ppb	16:18:57
1	SiO2†	1694.7	-62.3	-6.6745	µg/L	-6.6745	ppb	16:18:57
1	Si 251.611†	776.4	-174.1	-2.8231	µg/L	-2.8231	ppb	16:18:57
1	Sn 189.927†	9.6	12.1	0.8404	µg/L	0.8404	ppb	16:18:57
1	Ti 334.940†	742.0	-145.3	-0.1466	µg/L	-0.1466	ppb	16:18:37
1	Tl 190.801†	-106.0	11.3	1.5216	µg/L	1.5216	ppb	16:18:57
1	U 409.014†	-258.8	25.5	1.6179	µg/L	1.6179	ppb	16:18:37
1	V 292.402†	373.2	62.5	0.3338	µg/L	0.3338	ppb	16:18:37
1	Zn 213.857†	535.1	9.3	0.0558	µg/L	0.0558	ppb	16:18:57
2	Sc RADIAL	151582.4	151582.4	103	%			16:17:35
2	Al 396.153Radial†	-55.1	9.1	1.8727	µg/L	1.8727	ppb	16:17:55
2	Ca 317.933Radial†	630.1	-83.4	-5.0209	µg/L	-5.0209	ppb	16:17:55
2	Fe 238.204 Radial†	171.5	26.6	1.7868	µg/L	1.7868	ppb	16:17:55
2	K 766.490 Radial†	1635.4	282.1	116.08	µg/L	116.08	ppb	16:17:35
2	Mg 279.077 IEC†	165.2	-7.7	-3.1386	µg/L	-3.1386	ppb	16:17:55
2	Na 589.592 Radial†	1719.4	470.2	71.292	µg/L	71.292	ppb	16:17:35
2	Sr 421.552†	-209.5	17.3	0.0401	µg/L	0.0401	ppb	16:17:35
2	Sc 361.383	1753832.5	1753832.5	99.929	%			16:18:59
2	Y 371.029	1063469.2	1063469.2	99.946	%			16:18:59
2	Ag 328.068†	3412.7	-31.9	-0.1532	µg/L	-0.1532	ppb	16:19:02
2	As 188.979†	-15.2	2.5	0.8643	µg/L	0.8643	ppb	16:19:22
2	B 249.677†	3187.6	-40.5	-0.6608	µg/L	-0.6608	ppb	16:19:22
2	Ba 233.527†	-166.9	-4.9	-0.0217	µg/L	-0.0217	ppb	16:19:22
2	Be 313.107†	-546.6	238.6	0.0668	µg/L	0.0668	ppb	16:19:02
2	Cd 226.502†	-96.9	13.0	0.0892	µg/L	0.0892	ppb	16:19:22
2	Co 228.616†	-157.9	14.5	0.1955	µg/L	0.1955	ppb	16:19:22
2	Cr 267.716†	176.0	-2.5	-0.0085	µg/L	-0.0085	ppb	16:19:22
2	Cu 324.752†	2780.5	-6.4	-0.0400	µg/L	-0.0400	ppb	16:19:02
2	Mn 257.610†	169.9	-5.6	-0.0073	µg/L	-0.0073	ppb	16:19:22
2	Mo 202.031†	-32.0	2.8	0.0877	µg/L	0.0877	ppb	16:19:22
2	Ni 231.604†	-73.4	4.5	0.0561	µg/L	0.0561	ppb	16:19:22
2	P 214.914†	-19.7	-24.7	-5.8854	µg/L	-5.8854	ppb	16:19:22
2	Pb 220.353†	88.9	-8.0	-0.4789	µg/L	-0.4789	ppb	16:19:22

2	S 181.975 Axial†	82.2	-5.4	-4.4658 µg/L	-4.4658 ppb		16:19:22
2	Sb 206.836†	74.7	-3.3	-0.4337 µg/L	-0.4337 ppb		16:19:22
2	Se 196.026†	28.8	15.3	6.10 µg/L	6.10 ppb		16:19:22
2	SiO2†	1697.3	-54.7	-5.8600 µg/L	-5.8600 ppb		16:19:22
2	Si 251.611†	778.3	-169.8	-2.7541 µg/L	-2.7541 ppb		16:19:22
2	Sn 189.927†	8.2	10.7	0.7420 µg/L	0.7420 ppb		16:19:22
2	Ti 334.940†	832.1	-52.8	-0.0463 µg/L	-0.0463 ppb		16:19:02
2	Tl 190.801†	-117.4	-0.4	-0.0659 µg/L	-0.0659 ppb		16:19:22
2	U 409.014†	-537.9	-254.5	-15.974 µg/L	-15.974 ppb		16:19:02
2	V 292.402†	201.3	-108.4	-0.5855 µg/L	-0.5855 ppb		16:19:02
2	Zn 213.857†	517.9	-6.3	-0.0395 µg/L	-0.0395 ppb		16:19:22
3	Sc RADIAL	150090.6	150090.6	102 %			16:17:57
3	Al 396.153Radial†	-27.8	35.5	7.2924 µg/L	7.2924 ppb		16:18:17
3	Ca 317.933Radial†	602.3	-104.7	-6.3004 µg/L	-6.3004 ppb		16:18:17
3	Fe 238.204 Radial†	165.7	22.5	1.5162 µg/L	1.5162 ppb		16:18:17
3	K 766.490 Radial†	1500.0	164.6	67.743 µg/L	67.743 ppb		16:17:57
3	Mg 279.077 IEC†	180.4	8.9	3.6518 µg/L	3.6518 ppb		16:18:17
3	Na 589.592 Radial†	1423.7	195.7	29.652 µg/L	29.652 ppb		16:17:57
3	Sr 421.552†	-280.9	-55.0	-0.1268 µg/L	-0.1268 ppb		16:17:57
3	Sc 361.383	1757181.1	1757181.1	100.12 %			16:19:24
3	Y 371.029	1066334.2	1066334.2	100.22 %			16:19:24
3	Ag 328.068†	3335.3	-115.8	-0.4663 µg/L	-0.4663 ppb		16:19:26
3	As 188.979†	-22.6	-4.9	-1.6980 µg/L	-1.6980 ppb		16:19:46
3	B 249.677†	3210.1	-24.1	-0.3941 µg/L	-0.3941 ppb		16:19:46
3	Ba 233.527†	-133.3	29.1	0.1267 µg/L	0.1267 ppb		16:19:46
3	Be 313.107†	-716.2	70.2	0.0188 µg/L	0.0188 ppb		16:19:26
3	Cd 226.502†	-95.4	14.7	0.1010 µg/L	0.1010 ppb		16:19:46
3	Co 228.616†	-145.4	27.2	0.3675 µg/L	0.3675 ppb		16:19:46
3	Cr 267.716†	174.6	-4.2	-0.0294 µg/L	-0.0294 ppb		16:19:46
3	Cu 324.752†	2840.0	47.7	0.1953 µg/L	0.1953 ppb		16:19:26
3	Mn 257.610†	201.4	25.5	0.0340 µg/L	0.0340 ppb		16:19:46
3	Mo 202.031†	-24.7	10.1	0.3221 µg/L	0.3221 ppb		16:19:46
3	Ni 231.604†	-54.3	23.6	0.2973 µg/L	0.2973 ppb		16:19:46
3	P 214.914†	-12.8	-17.8	-4.2554 µg/L	-4.2554 ppb		16:19:46
3	Pb 220.353†	63.7	-33.3	-2.0332 µg/L	-2.0332 ppb		16:19:46
3	S 181.975 Axial†	86.2	-1.6	-1.2766 µg/L	-1.2766 ppb		16:19:46
3	Sb 206.836†	86.5	8.3	1.0959 µg/L	1.0959 ppb		16:19:46
3	Se 196.026†	16.3	2.7	1.07 µg/L	1.07 ppb		16:19:46
3	SiO2†	1672.5	-82.6	-8.8396 µg/L	-8.8396 ppb		16:19:46
3	Si 251.611†	786.6	-163.0	-2.6400 µg/L	-2.6400 ppb		16:19:46
3	Sn 189.927†	-9.1	-6.5	-0.4517 µg/L	-0.4517 ppb		16:19:46
3	Ti 334.940†	893.3	6.7	0.0093 µg/L	0.0093 ppb		16:19:26
3	Tl 190.801†	-122.2	-5.0	-0.6666 µg/L	-0.6666 ppb		16:19:46
3	U 409.014†	-403.6	-119.4	-7.4646 µg/L	-7.4646 ppb		16:19:26
3	V 292.402†	355.2	44.9	0.2363 µg/L	0.2363 ppb		16:19:26
3	Zn 213.857†	535.3	10.1	0.0605 µg/L	0.0605 ppb		16:19:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1756695.3	100.09	%	0.151				0.15%
Sc RADIAL	151394.6	102	%	0.8				0.81%
Y 371.029	1065834.7	100.17	%	0.203				0.20%
Ag 328.068†	-100.8	-0.4096	µg/L	0.23321	-0.4096	ppb	0.23321	56.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.8	2.8291	µg/L	4.07026	2.8291	ppb	4.07026	143.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	0.6545	µg/L	2.25498	0.6545	ppb	2.25498	344.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.9	-0.3411	µg/L	0.34923	-0.3411	ppb	0.34923	102.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.0	0.0870	µg/L	0.09526	0.0870	ppb	0.09526	109.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	162.4	0.0465	µg/L	0.02485	0.0465	ppb	0.02485	53.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-87.4	-5.2583	µg/L	0.94599	-5.2583	ppb	0.94599	17.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1213	µg/L	0.04585	0.1213	ppb	0.04585	37.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.9	0.1468	µg/L	0.24872	0.1468	ppb	0.24872	169.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.9      0.0386 µg/L       0.10032      0.0386 ppb        0.10032 259.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -9.1     -0.0438 µg/L       0.24105     -0.0438 ppb        0.24105 550.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        24.6      1.6571 µg/L       0.13567      1.6571 ppb        0.13567   8.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        233.3      96.014 µg/L       25.1904      96.014 ppb        25.1904  26.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.9      1.1715 µg/L       3.74683      1.1715 ppb        3.74683 319.83%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                8.6      0.0115 µg/L       0.02091      0.0115 ppb        0.02091 181.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.5      0.1440 µg/L       0.15766      0.1440 ppb        0.15766 109.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       356.1      53.987 µg/L       21.6918      53.987 ppb        21.6918  40.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               17.8      0.2244 µg/L       0.14611      0.2244 ppb        0.14611  65.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.3     -2.2218 µg/L       5.00083     -2.2218 ppb        5.00083 225.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -22.1     -1.3497 µg/L       0.79388     -1.3497 ppb        0.79388  58.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.0     -4.0863 µg/L       2.64049     -4.0863 ppb        2.64049  64.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.0      0.9242 µg/L       1.28071      0.9242 ppb        1.28071 138.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.6         2.64 µg/L         3.002         2.64 ppb          3.002 113.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -66.5     -7.1247 µg/L       1.53996     -7.1247 ppb        1.53996  21.61%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -168.9     -2.7391 µg/L       0.09245     -2.7391 ppb        0.09245   3.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      0.3769 µg/L       0.71929      0.3769 ppb        0.71929 190.85%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -36.8     -0.0848 µg/L       0.11006     -0.0848 ppb        0.11006 129.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -63.8     -0.0612 µg/L       0.07902     -0.0612 ppb        0.07902 129.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.0      0.2630 µg/L       1.13061      0.2630 ppb        1.13061 429.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -116.1     -7.2736 µg/L       8.79754     -7.2736 ppb        8.79754 120.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -0.3     -0.0051 µg/L       0.50496     -0.0051 ppb        0.50496 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                4.4      0.0256 µg/L       0.05641      0.0256 ppb        0.05641 220.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 16:33:11
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	151139.0	151139.0	102	%			16:33:44
1	Al 396.153Radial†	25196.3	24707.6	5068.1	µg/L	5068.1	ppb	16:33:44
1	Ca 317.933Radial†	86402.3	83812.5	5042.8	µg/L	5042.8	ppb	16:33:44
1	Fe 238.204 Radial†	76395.7	74582.4	5018.6	µg/L	5018.6	ppb	16:33:44
1	K 766.490 Radial†	14135.0	12512.7	5145.6	µg/L	5145.6	ppb	16:33:44
1	Mg 279.077 IEC†	12839.4	12389.5	5090.4	µg/L	5090.4	ppb	16:33:44
1	Na 589.592 Radial†	68823.9	66110.4	10034	µg/L	10034	ppb	16:33:44
1	Sr 421.552†	226964.0	222216.3	512.58	µg/L	512.58	ppb	16:33:42
1	Sc 361.383	1738736.4	1738736.4	99.069	%			16:34:12
1	Y 371.029	1041662.6	1041662.6	97.897	%			16:34:12
1	Ag 328.068†	127423.7	125174.2	503.84	µg/L	503.84	ppb	16:34:12
1	As 188.979†	1389.7	1420.5	502.92	µg/L	502.92	ppb	16:34:32
1	B 249.677†	33453.0	30537.1	496.13	µg/L	496.13	ppb	16:34:12
1	Ba 233.527†	113987.1	115220.6	502.10	µg/L	502.10	ppb	16:34:12
1	Be 313.107†	1653159.2	1669481.5	501.17	µg/L	501.17	ppb	16:34:12
1	Cd 226.502†	72224.6	73013.4	501.02	µg/L	501.02	ppb	16:34:12
1	Co 228.616†	36766.5	37284.5	504.53	µg/L	504.53	ppb	16:34:12
1	Cr 267.716†	59072.0	59448.6	500.77	µg/L	500.77	ppb	16:34:12
1	Cu 324.752†	120311.3	118653.0	501.54	µg/L	501.54	ppb	16:34:12
1	Mn 257.610†	373179.3	376510.9	503.04	µg/L	503.04	ppb	16:34:12
1	Mo 202.031†	15677.5	15859.6	504.94	µg/L	504.94	ppb	16:34:32
1	Ni 231.604†	39543.7	39993.2	503.02	µg/L	503.02	ppb	16:34:12
1	P 214.914†	10442.2	10535.4	2504.3	µg/L	2504.3	ppb	16:34:32
1	Pb 220.353†	8280.1	8260.9	507.41	µg/L	507.41	ppb	16:34:32
1	S 181.975 Axial†	1296.7	1221.2	1005.3	µg/L	1005.3	ppb	16:34:32
1	Sb 206.836†	3864.6	3822.8	502.45	µg/L	502.45	ppb	16:34:32
1	Se 196.026†	1254.0	1252.2	503	µg/L	503	ppb	16:34:32
1	SiO2†	51275.4	50004.2	5328.1	µg/L	5328.1	ppb	16:34:12
1	Si 251.611†	154864.0	155370.8	2504.8	µg/L	2504.8	ppb	16:34:12
1	Sn 189.927†	7172.7	7242.6	503.11	µg/L	503.11	ppb	16:34:32
1	Ti 334.940†	498220.5	502017.3	502.29	µg/L	502.29	ppb	16:34:12
1	Tl 190.801†	3613.1	3764.1	513.40	µg/L	513.40	ppb	16:34:32
1	U 409.014†	7323.5	7676.1	511.26	µg/L	511.26	ppb	16:34:12
1	V 292.402†	93382.5	93950.3	505.51	µg/L	505.51	ppb	16:34:12
1	Zn 213.857†	80909.7	81145.6	499.32	µg/L	499.32	ppb	16:34:12
2	Sc RADIAL	148387.4	148387.4	100	%			16:33:48
2	Al 396.153Radial†	25003.7	24972.6	5122.4	µg/L	5122.4	ppb	16:33:48
2	Ca 317.933Radial†	85779.0	84758.7	5099.7	µg/L	5099.7	ppb	16:33:48
2	Fe 238.204 Radial†	75791.8	75366.3	5071.3	µg/L	5071.3	ppb	16:33:48
2	K 766.490 Radial†	14052.4	12686.8	5217.2	µg/L	5217.2	ppb	16:33:48
2	Mg 279.077 IEC†	12862.3	12645.2	5195.4	µg/L	5195.4	ppb	16:33:48
2	Na 589.592 Radial†	68425.7	66962.0	10163	µg/L	10163	ppb	16:33:48
2	Sr 421.552†	225755.6	225128.9	519.30	µg/L	519.30	ppb	16:33:46
2	Sc 361.383	1732689.3	1732689.3	98.724	%			16:34:35
2	Y 371.029	1037776.0	1037776.0	97.531	%			16:34:35
2	Ag 328.068†	127823.1	126027.7	507.26	µg/L	507.26	ppb	16:34:35
2	As 188.979†	1426.9	1463.0	517.81	µg/L	517.81	ppb	16:34:55
2	B 249.677†	33275.5	30475.1	495.12	µg/L	495.12	ppb	16:34:35
2	Ba 233.527†	113937.6	115572.0	503.63	µg/L	503.63	ppb	16:34:35
2	Be 313.107†	1651670.0	1673796.8	502.47	µg/L	502.47	ppb	16:34:35
2	Cd 226.502†	71981.5	73021.6	501.07	µg/L	501.07	ppb	16:34:35
2	Co 228.616†	36746.8	37394.0	506.02	µg/L	506.02	ppb	16:34:35
2	Cr 267.716†	59002.6	59586.4	501.92	µg/L	501.92	ppb	16:34:35
2	Cu 324.752†	120225.8	118990.3	502.99	µg/L	502.99	ppb	16:34:35
2	Mn 257.610†	372559.0	377197.3	503.95	µg/L	503.95	ppb	16:34:35
2	Mo 202.031†	15857.3	16096.9	512.49	µg/L	512.49	ppb	16:34:55
2	Ni 231.604†	39495.0	40083.2	504.16	µg/L	504.16	ppb	16:34:35
2	P 214.914†	10624.2	10756.4	2557.0	µg/L	2557.0	ppb	16:34:55
2	Pb 220.353†	8415.5	8427.3	517.61	µg/L	517.61	ppb	16:34:55

2	S 181.975 Axial†	1322.3	1251.7	1030.4 µg/L	1030.4 ppb	16:34:55
2	Sb 206.836†	3941.4	3914.2	514.54 µg/L	514.54 ppb	16:34:55
2	Se 196.026†	1272.2	1275.1	513 µg/L	513 ppb	16:34:55
2	SiO2†	51298.9	50208.6	5349.6 µg/L	5349.6 ppb	16:34:35
2	Si 251.611†	154113.0	155155.6	2501.2 µg/L	2501.2 ppb	16:34:35
2	Sn 189.927†	7288.6	7385.3	512.99 µg/L	512.99 ppb	16:34:55
2	Ti 334.940†	497492.0	503034.5	503.30 µg/L	503.30 ppb	16:34:35
2	Tl 190.801†	3651.1	3815.4	520.30 µg/L	520.30 ppb	16:34:55
2	U 409.014†	7472.3	7852.6	522.37 µg/L	522.37 ppb	16:34:35
2	V 292.402†	93254.4	94149.5	506.65 µg/L	506.65 ppb	16:34:35
2	Zn 213.857†	80620.4	81137.6	499.26 µg/L	499.26 ppb	16:34:35
3	Sc RADIAL	149756.5	149756.5	101 %		16:33:53
3	Al 396.153Radial†	25384.2	25120.5	5153.1 µg/L	5153.1 ppb	16:33:53
3	Ca 317.933Radial†	86609.2	84797.0	5102.0 µg/L	5102.0 ppb	16:33:53
3	Fe 238.204 Radial†	76492.1	75367.4	5071.4 µg/L	5071.4 ppb	16:33:53
3	K 766.490 Radial†	13940.1	12448.0	5118.9 µg/L	5118.9 ppb	16:33:53
3	Mg 279.077 IEC†	12945.8	12610.5	5181.1 µg/L	5181.1 ppb	16:33:53
3	Na 589.592 Radial†	68594.3	66505.2	10094 µg/L	10094 ppb	16:33:53
3	Sr 421.552†	224007.7	221347.5	510.58 µg/L	510.58 ppb	16:33:51
3	Sc 361.383	1751130.8	1751130.8	99.775 %		16:34:58
3	Y 371.029	1048597.3	1048597.3	98.548 %		16:34:58
3	Ag 328.068†	129529.0	126373.9	508.64 µg/L	508.64 ppb	16:34:58
3	As 188.979†	1411.3	1432.2	507.05 µg/L	507.05 ppb	16:35:18
3	B 249.677†	33887.0	30733.0	499.31 µg/L	499.31 ppb	16:34:58
3	Ba 233.527†	115619.9	116042.6	505.68 µg/L	505.68 ppb	16:34:58
3	Be 313.107†	1676617.7	1681181.9	504.68 µg/L	504.68 ppb	16:34:58
3	Cd 226.502†	73368.7	73644.1	505.35 µg/L	505.35 ppb	16:34:58
3	Co 228.616†	37328.7	37585.3	508.60 µg/L	508.60 ppb	16:34:58
3	Cr 267.716†	59733.8	59689.9	502.80 µg/L	502.80 ppb	16:34:58
3	Cu 324.752†	121792.3	119277.8	504.19 µg/L	504.19 ppb	16:34:58
3	Mn 257.610†	378088.5	378765.0	506.04 µg/L	506.04 ppb	16:34:58
3	Mo 202.031†	15858.6	15929.1	507.15 µg/L	507.15 ppb	16:35:18
3	Ni 231.604†	40204.0	40372.5	507.79 µg/L	507.79 ppb	16:34:58
3	P 214.914†	10611.8	10630.7	2527.0 µg/L	2527.0 ppb	16:35:18
3	Pb 220.353†	8416.7	8338.7	512.19 µg/L	512.19 ppb	16:35:18
3	S 181.975 Axial†	1321.9	1237.1	1018.4 µg/L	1018.4 ppb	16:35:18
3	Sb 206.836†	3931.6	3862.4	507.66 µg/L	507.66 ppb	16:35:18
3	Se 196.026†	1279.4	1268.7	510 µg/L	510 ppb	16:35:18
3	SiO2†	52016.0	50380.1	5368.1 µg/L	5368.1 ppb	16:34:58
3	Si 251.611†	156602.6	156006.9	2515.0 µg/L	2515.0 ppb	16:34:58
3	Sn 189.927†	7321.0	7340.0	509.86 µg/L	509.86 ppb	16:35:18
3	Ti 334.940†	504195.1	504445.9	504.72 µg/L	504.72 ppb	16:34:58
3	Tl 190.801†	3645.8	3771.1	514.37 µg/L	514.37 ppb	16:35:18
3	U 409.014†	7418.7	7719.2	514.12 µg/L	514.12 ppb	16:34:58
3	V 292.402†	94555.7	94459.0	508.23 µg/L	508.23 ppb	16:34:58
3	Zn 213.857†	81983.3	81643.6	502.38 µg/L	502.38 ppb	16:34:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1740852.2	99.189	%	0.5356				0.54%
Sc RADIAL	149761.0	101	%	0.9				0.92%
Y 371.029	1042678.6	97.992	%	0.5152				0.53%
Ag 328.068†	125858.6	506.58	µg/L	2.472	506.58	ppb	2.472	0.49%
QC value within limits for Ag 328.068 Recovery = 101.32%								
Al 396.153Radial†	24933.6	5114.5	µg/L	43.04	5114.5	ppb	43.04	0.84%
QC value within limits for Al 396.153Radial Recovery = 102.29%								
As 188.979†	1438.6	509.26	µg/L	7.683	509.26	ppb	7.683	1.51%
QC value within limits for As 188.979 Recovery = 101.85%								
B 249.677†	30581.7	496.85	µg/L	2.189	496.85	ppb	2.189	0.44%
QC value within limits for B 249.677 Recovery = 99.37%								
Ba 233.527†	115611.7	503.80	µg/L	1.797	503.80	ppb	1.797	0.36%
QC value within limits for Ba 233.527 Recovery = 100.76%								
Be 313.107†	1674820.1	502.77	µg/L	1.776	502.77	ppb	1.776	0.35%
QC value within limits for Be 313.107 Recovery = 100.55%								
Ca 317.933Radial†	84456.1	5081.5	µg/L	33.55	5081.5	ppb	33.55	0.66%
QC value within limits for Ca 317.933Radial Recovery = 101.63%								
Cd 226.502†	73226.4	502.48	µg/L	2.483	502.48	ppb	2.483	0.49%
QC value within limits for Cd 226.502 Recovery = 100.50%								
Co 228.616†	37421.3	506.38	µg/L	2.060	506.38	ppb	2.060	0.41%

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   QC value within limits for Co 228.616  Recovery = 101.28%
Cr 267.716†            59575.0      501.83 µg/L         1.019      501.83 ppb          1.019   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.37%
Cu 324.752†           118973.7      502.91 µg/L         1.326      502.91 ppb          1.326   0.26%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     75105.4      5053.7 µg/L        30.48      5053.7 ppb         30.48   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.07%
K 766.490 Radial†      12549.1      5160.6 µg/L        50.82      5160.6 ppb         50.82   0.98%
   QC value within limits for K 766.490 Radial  Recovery = 103.21%
Mg 279.077 IEC†        12548.4      5155.7 µg/L        56.94      5155.7 ppb         56.94   1.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.11%
Mn 257.610†           377491.1      504.34 µg/L         1.543      504.34 ppb          1.543   0.31%
   QC value within limits for Mn 257.610  Recovery = 100.87%
Mo 202.031†            15961.9      508.19 µg/L         3.883      508.19 ppb          3.883   0.76%
   QC value within limits for Mo 202.031  Recovery = 101.64%
Na 589.592 Radial†     66525.8       10097 µg/L          64.7       10097 ppb           64.7   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†            40149.6      504.99 µg/L         2.493      504.99 ppb          2.493   0.49%
   QC value within limits for Ni 231.604  Recovery = 101.00%
P 214.914†             10640.8      2529.4 µg/L        26.43      2529.4 ppb         26.43   1.05%
   QC value within limits for P 214.914  Recovery = 101.18%
Pb 220.353†             8342.3      512.41 µg/L         5.103      512.41 ppb          5.103   1.00%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1236.7      1018.0 µg/L        12.54      1018.0 ppb         12.54   1.23%
   QC value within limits for S 181.975 Axial  Recovery = 101.80%
Sb 206.836†             3866.5      508.21 µg/L         6.063      508.21 ppb          6.063   1.19%
   QC value within limits for Sb 206.836  Recovery = 101.64%
Se 196.026†             1265.3         509 µg/L          4.7         509 ppb            4.7   0.93%
   QC value within limits for Se 196.026  Recovery = 101.75%
SiO2†                  50197.6      5348.6 µg/L        20.05      5348.6 ppb         20.05   0.37%
   QC value within limits for SiO2  Recovery = 100.02%
Si 251.611†           155511.1      2507.0 µg/L         7.19      2507.0 ppb          7.19   0.29%
   QC value within limits for Si 251.611  Recovery = 100.28%
Sn 189.927†             7322.7      508.66 µg/L         5.051      508.66 ppb          5.051   0.99%
   QC value within limits for Sn 189.927  Recovery = 101.73%
Sr 421.552†           222897.6      514.15 µg/L         4.569      514.15 ppb          4.569   0.89%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           503165.9      503.44 µg/L         1.219      503.44 ppb          1.219   0.24%
   QC value within limits for Ti 334.940  Recovery = 100.69%
Tl 190.801†             3783.5      516.02 µg/L         3.736      516.02 ppb          3.736   0.72%
   QC value within limits for Tl 190.801  Recovery = 103.20%
U 409.014†              7749.3      515.92 µg/L         5.770      515.92 ppb          5.770   1.12%
   QC value within limits for U 409.014  Recovery = 103.18%
V 292.402†             94186.3      506.80 µg/L         1.369      506.80 ppb          1.369   0.27%
   QC value within limits for V 292.402  Recovery = 101.36%
Zn 213.857†            81308.9      500.32 µg/L         1.780      500.32 ppb          1.780   0.36%
   QC value within limits for Zn 213.857  Recovery = 100.06%
All analyte(s) passed QC.
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Sequence No.: 19 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 16:35:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151878.1	151878.1	103	%			16:35:56
1	Al 396.153Radial†	-27.3	36.3	7.4811	µg/L	7.4811	ppb	16:36:16
1	Ca 317.933Radial†	686.6	-29.7	-1.7857	µg/L	-1.7857	ppb	16:36:16
1	Fe 238.204 Radial†	172.4	27.1	1.8263	µg/L	1.8263	ppb	16:36:16
1	K 766.490 Radial†	1493.5	140.9	57.964	µg/L	57.964	ppb	16:35:56
1	Mg 279.077 IEC†	188.2	14.4	5.9196	µg/L	5.9196	ppb	16:36:16
1	Na 589.592 Radial†	1596.6	347.4	52.696	µg/L	52.696	ppb	16:35:56
1	Sr 421.552†	-187.5	39.2	0.0904	µg/L	0.0904	ppb	16:35:56
1	Sc 361.383	1775966.4	1775966.4	101.19	%			16:37:18
1	Y 371.029	1075816.3	1075816.3	101.11	%			16:37:18
1	Ag 328.068†	3637.8	148.0	0.5819	µg/L	0.5819	ppb	16:37:20
1	As 188.979†	-2.5	15.2	5.2981	µg/L	5.2981	ppb	16:37:40
1	B 249.677†	3304.0	34.8	0.5663	µg/L	0.5663	ppb	16:37:40
1	Ba 233.527†	-170.2	-6.0	-0.0264	µg/L	-0.0264	ppb	16:37:40
1	Be 313.107†	-529.3	262.5	0.0783	µg/L	0.0783	ppb	16:37:20
1	Cd 226.502†	-78.1	32.8	0.2250	µg/L	0.2250	ppb	16:37:40
1	Co 228.616†	-156.5	17.7	0.2396	µg/L	0.2396	ppb	16:37:40
1	Cr 267.716†	134.1	-46.0	-0.3871	µg/L	-0.3871	ppb	16:37:40
1	Cu 324.752†	2726.1	-94.9	-0.4005	µg/L	-0.4005	ppb	16:37:20
1	Mn 257.610†	181.0	3.3	0.0042	µg/L	0.0042	ppb	16:37:40
1	Mo 202.031†	-31.8	3.4	0.1071	µg/L	0.1071	ppb	16:37:40
1	Ni 231.604†	-78.8	0.0	0.0002	µg/L	0.0002	ppb	16:37:40
1	P 214.914†	11.7	6.6	1.5795	µg/L	1.5795	ppb	16:37:40
1	Pb 220.353†	104.7	6.5	0.4021	µg/L	0.4021	ppb	16:37:40
1	S 181.975 Axial†	97.8	9.0	7.3534	µg/L	7.3534	ppb	16:37:40
1	Sb 206.836†	78.3	-0.7	-0.0809	µg/L	-0.0809	ppb	16:37:40
1	Se 196.026†	26.0	12.1	4.86	µg/L	4.86	ppb	16:37:40
1	SiO2†	1712.3	-61.0	-6.5292	µg/L	-6.5292	ppb	16:37:40
1	Si 251.611†	932.1	-27.5	-0.4477	µg/L	-0.4477	ppb	16:37:20
1	Sn 189.927†	-1.2	1.4	0.0971	µg/L	0.0971	ppb	16:37:40
1	Ti 334.940†	836.6	-58.8	-0.0587	µg/L	-0.0587	ppb	16:37:20
1	Tl 190.801†	-101.3	17.0	2.2738	µg/L	2.2738	ppb	16:37:40
1	U 409.014†	-310.8	-23.4	-1.4888	µg/L	-1.4888	ppb	16:37:20
1	V 292.402†	243.1	-69.6	-0.3711	µg/L	-0.3711	ppb	16:37:20
1	Zn 213.857†	533.2	2.3	0.0148	µg/L	0.0148	ppb	16:37:40
2	Sc RADIAL	150766.1	150766.1	102	%			16:36:18
2	Al 396.153Radial†	-29.1	34.4	7.0870	µg/L	7.0870	ppb	16:36:38
2	Ca 317.933Radial†	682.2	-29.1	-1.7514	µg/L	-1.7514	ppb	16:36:38
2	Fe 238.204 Radial†	166.3	22.4	1.5048	µg/L	1.5048	ppb	16:36:38
2	K 766.490 Radial†	1525.1	182.6	75.152	µg/L	75.152	ppb	16:36:18
2	Mg 279.077 IEC†	179.6	7.3	2.9938	µg/L	2.9938	ppb	16:36:38
2	Na 589.592 Radial†	1371.5	138.2	20.914	µg/L	20.914	ppb	16:36:18
2	Sr 421.552†	-190.0	35.3	0.0815	µg/L	0.0815	ppb	16:36:18
2	Sc 361.383	1781472.1	1781472.1	101.50	%			16:37:42
2	Y 371.029	1078812.6	1078812.6	101.39	%			16:37:42
2	Ag 328.068†	3322.4	-173.9	-0.6936	µg/L	-0.6936	ppb	16:37:44
2	As 188.979†	-9.9	7.9	2.7584	µg/L	2.7584	ppb	16:38:05
2	B 249.677†	3225.9	-52.2	-0.8523	µg/L	-0.8523	ppb	16:38:05
2	Ba 233.527†	-165.6	-1.0	-0.0040	µg/L	-0.0040	ppb	16:38:05
2	Be 313.107†	-662.6	132.8	0.0378	µg/L	0.0378	ppb	16:37:44
2	Cd 226.502†	-107.6	4.0	0.0272	µg/L	0.0272	ppb	16:38:05
2	Co 228.616†	-153.4	21.3	0.2875	µg/L	0.2875	ppb	16:38:05
2	Cr 267.716†	167.4	-13.7	-0.1095	µg/L	-0.1095	ppb	16:38:05
2	Cu 324.752†	2776.0	-54.1	-0.2330	µg/L	-0.2330	ppb	16:37:44
2	Mn 257.610†	220.5	41.7	0.0556	µg/L	0.0556	ppb	16:38:05
2	Mo 202.031†	-36.8	-1.5	-0.0478	µg/L	-0.0478	ppb	16:38:05
2	Ni 231.604†	-80.5	-1.4	-0.0180	µg/L	-0.0180	ppb	16:38:05
2	P 214.914†	12.5	7.3	1.7603	µg/L	1.7603	ppb	16:38:05
2	Pb 220.353†	90.3	-8.0	-0.4821	µg/L	-0.4821	ppb	16:38:05

2	S 181.975 Axial†	91.8	2.7	2.2316 µg/L	2.2316 ppb	16:38:05
2	Sb 206.836†	83.6	4.3	0.5702 µg/L	0.5702 ppb	16:38:05
2	Se 196.026†	1.8	-11.8	-4.75 µg/L	-4.75 ppb	16:38:05
2	SiO2†	1691.8	-86.4	-9.2496 µg/L	-9.2496 ppb	16:38:05
2	Si 251.611†	787.2	-173.1	-2.8052 µg/L	-2.8052 ppb	16:37:44
2	Sn 189.927†	7.4	9.9	0.6835 µg/L	0.6835 ppb	16:38:05
2	Ti 334.940†	827.4	-70.5	-0.0680 µg/L	-0.0680 ppb	16:37:44
2	Tl 190.801†	-117.6	1.3	0.1723 µg/L	0.1723 ppb	16:38:05
2	U 409.014†	-399.5	-109.8	-6.8488 µg/L	-6.8488 ppb	16:37:44
2	V 292.402†	412.9	96.9	0.5089 µg/L	0.5089 ppb	16:37:44
2	Zn 213.857†	530.6	-1.8	-0.0109 µg/L	-0.0109 ppb	16:38:05
3	Sc RADIAL	151659.3	151659.3	103 %		16:36:40
3	Al 396.153Radial†	-28.3	35.3	7.2531 µg/L	7.2531 ppb	16:37:00
3	Ca 317.933Radial†	646.0	-68.3	-4.1086 µg/L	-4.1086 ppb	16:37:00
3	Fe 238.204 Radial†	199.0	53.3	3.5851 µg/L	3.5851 ppb	16:37:00
3	K 766.490 Radial†	1519.9	168.8	69.446 µg/L	69.446 ppb	16:36:40
3	Mg 279.077 IEC†	179.2	5.9	2.4278 µg/L	2.4278 ppb	16:37:00
3	Na 589.592 Radial†	1454.5	211.2	32.007 µg/L	32.007 ppb	16:36:40
3	Sr 421.552†	-167.3	58.5	0.1351 µg/L	0.1351 ppb	16:36:40
3	Sc 361.383	1777415.3	1777415.3	101.27 %		16:38:07
3	Y 371.029	1077075.4	1077075.4	101.22 %		16:38:07
3	Ag 328.068†	3547.2	55.6	0.2339 µg/L	0.2339 ppb	16:38:09
3	As 188.979†	-14.0	3.8	1.3299 µg/L	1.3299 ppb	16:38:29
3	B 249.677†	3244.0	-27.1	-0.4430 µg/L	-0.4430 ppb	16:38:29
3	Ba 233.527†	-186.1	-21.6	-0.0937 µg/L	-0.0937 ppb	16:38:29
3	Be 313.107†	-746.5	48.4	0.0159 µg/L	0.0159 ppb	16:38:09
3	Cd 226.502†	-82.7	28.3	0.1941 µg/L	0.1941 ppb	16:38:29
3	Co 228.616†	-162.0	12.5	0.1686 µg/L	0.1686 ppb	16:38:29
3	Cr 267.716†	143.6	-36.8	-0.3130 µg/L	-0.3130 ppb	16:38:29
3	Cu 324.752†	2855.6	30.7	0.1338 µg/L	0.1338 ppb	16:38:09
3	Mn 257.610†	204.7	26.6	0.0354 µg/L	0.0354 ppb	16:38:29
3	Mo 202.031†	-21.9	13.1	0.4182 µg/L	0.4182 ppb	16:38:29
3	Ni 231.604†	-69.6	9.2	0.1151 µg/L	0.1151 ppb	16:38:29
3	P 214.914†	1.4	-3.6	-0.8646 µg/L	-0.8646 ppb	16:38:29
3	Pb 220.353†	84.4	-13.6	-0.8367 µg/L	-0.8367 ppb	16:38:29
3	S 181.975 Axial†	90.3	1.5	1.2325 µg/L	1.2325 ppb	16:38:29
3	Sb 206.836†	80.7	1.6	0.2186 µg/L	0.2186 ppb	16:38:29
3	Se 196.026†	8.3	-5.3	-2.13 µg/L	-2.13 ppb	16:38:29
3	SiO2†	1696.0	-78.5	-8.4316 µg/L	-8.4316 ppb	16:38:29
3	Si 251.611†	738.0	-219.9	-3.5748 µg/L	-3.5748 ppb	16:38:09
3	Sn 189.927†	18.0	20.3	1.4069 µg/L	1.4069 ppb	16:38:29
3	Ti 334.940†	846.9	-49.3	-0.0514 µg/L	-0.0514 ppb	16:38:09
3	Tl 190.801†	-120.1	-1.5	-0.1973 µg/L	-0.1973 ppb	16:38:29
3	U 409.014†	-216.0	70.5	4.4517 µg/L	4.4517 ppb	16:38:09
3	V 292.402†	433.2	117.9	0.6318 µg/L	0.6318 ppb	16:38:09
3	Zn 213.857†	526.7	-4.5	-0.0291 µg/L	-0.0291 ppb	16:38:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778284.6	101.32	%	0.163				0.16%
Sc RADIAL	151434.5	102	%	0.4				0.39%
Y 371.029	1077234.8	101.24	%	0.141				0.14%
Ag 328.068†	9.9	0.0407	µg/L	0.65930	0.0407	ppb	0.65930	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	35.3	7.2737	µg/L	0.19788	7.2737	ppb	0.19788	2.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.0	3.1288	µg/L	2.00985	3.1288	ppb	2.00985	64.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.9	-0.2430	µg/L	0.73013	-0.2430	ppb	0.73013	300.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.5	-0.0414	µg/L	0.04672	-0.0414	ppb	0.04672	112.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	147.9	0.0440	µg/L	0.03169	0.0440	ppb	0.03169	72.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-42.4	-2.5486	µg/L	1.35112	-2.5486	ppb	1.35112	53.02%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.7	0.1488	µg/L	0.10645	0.1488	ppb	0.10645	71.55%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.2	0.2319	µg/L	0.05984	0.2319	ppb	0.05984	25.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -32.2     -0.2698 µg/L       0.14373     -0.2698 ppb        0.14373  53.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -39.4     -0.1666 µg/L       0.27327     -0.1666 ppb        0.27327 164.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        34.3      2.3054 µg/L       1.11984      2.3054 ppb        1.11984  48.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        164.1      67.521 µg/L        8.7540      67.521 ppb         8.7540  12.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           9.2      3.7804 µg/L       1.87409      3.7804 ppb        1.87409  49.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              23.9      0.0317 µg/L       0.02590      0.0317 ppb        0.02590  81.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.1592 µg/L       0.23731      0.1592 ppb        0.23731 149.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       232.2      35.206 µg/L       16.1307      35.206 ppb        16.1307  45.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.6      0.0324 µg/L       0.07220      0.0324 ppb        0.07220 222.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.4      0.8250 µg/L       1.46608      0.8250 ppb        1.46608 177.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.0     -0.3056 µg/L       0.63802     -0.3056 ppb        0.63802 208.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.4      3.6058 µg/L       3.28371      3.6058 ppb        3.28371  91.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.7      0.2360 µg/L       0.32585      0.2360 ppb        0.32585 138.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.7      -0.675 µg/L        4.9659      -0.675 ppb         4.9659 736.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -75.3     -8.0701 µg/L       1.39574     -8.0701 ppb        1.39574  17.30%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -140.2     -2.2759 µg/L       1.62935     -2.2759 ppb        1.62935  71.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.5      0.7292 µg/L       0.65610      0.7292 ppb        0.65610  89.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              44.3      0.1023 µg/L       0.02870      0.1023 ppb        0.02870  28.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -59.5     -0.0594 µg/L       0.00835     -0.0594 ppb        0.00835  14.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      0.7496 µg/L       1.33288      0.7496 ppb        1.33288 177.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.9     -1.2953 µg/L       5.65273     -1.2953 ppb        5.65273 436.40%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                48.4      0.2565 µg/L       0.54704      0.2565 ppb        0.54704 213.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -1.3     -0.0084 µg/L       0.02204     -0.0084 ppb        0.02204 262.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/30/2010 16:57:39 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033010.sif
Batch ID:
Results Data Set: 033010B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/30/2010 16:57:41**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	149199.2	149199.2	101	%			16:58:14
1	Al 396.153Radial†	25133.4	24965.6	5121.0	µg/L	5121.0	ppb	16:58:14
1	Ca 317.933Radial†	86291.1	84801.1	5102.3	µg/L	5102.3	ppb	16:58:14
1	Fe 238.204 Radial†	76166.0	75326.2	5068.6	µg/L	5068.6	ppb	16:58:14
1	K 766.490 Radial†	13784.3	12344.9	5076.5	µg/L	5076.5	ppb	16:58:14
1	Mg 279.077 IEC†	13036.4	12747.9	5237.5	µg/L	5237.5	ppb	16:58:14
1	Na 589.592 Radial†	68524.1	66688.5	10122	µg/L	10122	ppb	16:58:14
1	Sr 421.552†	222273.3	220454.9	508.52	µg/L	508.52	ppb	16:58:12
1	Sc 361.383	1729437.6	1729437.6	98.539	%			16:58:26
1	Y 371.029	1036324.1	1036324.1	97.395	%			16:58:26
1	Ag 328.068†	127198.8	125637.5	505.71	µg/L	505.71	ppb	16:58:26
1	As 188.979†	1397.3	1435.7	508.27	µg/L	508.27	ppb	16:58:46
1	B 249.677†	33342.8	30606.8	497.26	µg/L	497.26	ppb	16:58:26
1	Ba 233.527†	113491.6	115336.4	502.60	µg/L	502.60	ppb	16:58:26
1	Be 313.107†	1652988.4	1678280.3	503.82	µg/L	503.82	ppb	16:58:26
1	Cd 226.502†	72383.9	73567.0	504.82	µg/L	504.82	ppb	16:58:26
1	Co 228.616†	36695.5	37411.9	506.26	µg/L	506.26	ppb	16:58:26
1	Cr 267.716†	58963.9	59659.5	502.53	µg/L	502.53	ppb	16:58:26
1	Cu 324.752†	119751.4	118737.8	501.93	µg/L	501.93	ppb	16:58:26
1	Mn 257.610†	372127.1	377468.5	504.31	µg/L	504.31	ppb	16:58:26
1	Mo 202.031†	15742.5	16010.6	509.75	µg/L	509.75	ppb	16:58:46
1	Ni 231.604†	39503.2	40166.7	505.21	µg/L	505.21	ppb	16:58:26
1	P 214.914†	10540.5	10691.7	2541.6	µg/L	2541.6	ppb	16:58:46
1	Pb 220.353†	8315.2	8341.5	512.35	µg/L	512.35	ppb	16:58:46
1	S 181.975 Axial†	1305.5	1237.2	1018.5	µg/L	1018.5	ppb	16:58:46
1	Sb 206.836†	3903.1	3882.9	510.37	µg/L	510.37	ppb	16:58:46
1	Se 196.026†	1270.8	1276.1	513	µg/L	513	ppb	16:58:46
1	SiO2†	51353.9	50362.1	5366.1	µg/L	5366.1	ppb	16:58:26
1	Si 251.611†	154170.2	155507.2	2506.9	µg/L	2506.9	ppb	16:58:26
1	Sn 189.927†	7252.0	7362.1	511.38	µg/L	511.38	ppb	16:58:46
1	Ti 334.940†	496039.9	502508.3	502.77	µg/L	502.77	ppb	16:58:26
1	Tl 190.801†	3625.2	3796.0	517.69	µg/L	517.69	ppb	16:58:46
1	U 409.014†	7556.6	7952.4	528.59	µg/L	528.59	ppb	16:58:26
1	V 292.402†	92970.0	94038.4	506.04	µg/L	506.04	ppb	16:58:26
1	Zn 213.857†	80596.8	81267.1	500.06	µg/L	500.06	ppb	16:58:26
2	Sc RADIAL	148989.5	148989.5	101	%			16:58:18
2	Al 396.153Radial†	25062.8	24930.6	5113.9	µg/L	5113.9	ppb	16:58:18
2	Ca 317.933Radial†	86125.4	84757.0	5099.6	µg/L	5099.6	ppb	16:58:18
2	Fe 238.204 Radial†	76239.8	75505.7	5080.7	µg/L	5080.7	ppb	16:58:18
2	K 766.490 Radial†	13841.1	12420.6	5107.7	µg/L	5107.7	ppb	16:58:18
2	Mg 279.077 IEC†	12962.5	12692.8	5214.9	µg/L	5214.9	ppb	16:58:18
2	Na 589.592 Radial†	68179.9	66442.6	10085	µg/L	10085	ppb	16:58:18
2	Sr 421.552†	224560.5	223034.3	514.47	µg/L	514.47	ppb	16:58:16
2	Sc 361.383	1722198.8	1722198.8	98.127	%			16:58:50
2	Y 371.029	1031025.1	1031025.1	96.897	%			16:58:50
2	Ag 328.068†	126600.1	125570.0	505.41	µg/L	505.41	ppb	16:58:50
2	As 188.979†	1403.2	1447.6	512.43	µg/L	512.43	ppb	16:59:10

2	B 249.677†	33328.8	30734.7	499.34 µg/L	499.34 ppb	16:58:50
2	Ba 233.527†	113413.5	115740.8	504.36 µg/L	504.36 ppb	16:58:50
2	Be 313.107†	1647320.5	1679555.1	504.19 µg/L	504.19 ppb	16:58:50
2	Cd 226.502†	72125.6	73612.6	505.13 µg/L	505.13 ppb	16:58:50
2	Co 228.616†	36642.3	37514.2	507.64 µg/L	507.64 ppb	16:58:50
2	Cr 267.716†	58539.2	59478.2	501.02 µg/L	501.02 ppb	16:58:50
2	Cu 324.752†	119171.5	118657.7	501.57 µg/L	501.57 ppb	16:58:50
2	Mn 257.610†	370900.9	377806.2	504.76 µg/L	504.76 ppb	16:58:50
2	Mo 202.031†	15642.4	15975.8	508.64 µg/L	508.64 ppb	16:59:10
2	Ni 231.604†	39353.6	40182.8	505.41 µg/L	505.41 ppb	16:58:50
2	P 214.914†	10458.6	10653.2	2532.4 µg/L	2532.4 ppb	16:59:10
2	Pb 220.353†	8291.2	8352.5	513.04 µg/L	513.04 ppb	16:59:10
2	S 181.975 Axial†	1304.5	1241.7	1022.1 µg/L	1022.1 ppb	16:59:10
2	Sb 206.836†	3865.5	3861.2	507.54 µg/L	507.54 ppb	16:59:10
2	Se 196.026†	1274.2	1284.9	517 µg/L	517 ppb	16:59:10
2	SiO2†	51206.2	50430.6	5373.5 µg/L	5373.5 ppb	16:58:50
2	Si 251.611†	154157.0	156151.3	2517.4 µg/L	2517.4 ppb	16:58:50
2	Sn 189.927†	7197.1	7337.0	509.65 µg/L	509.65 ppb	16:59:10
2	Ti 334.940†	494104.3	502651.7	502.92 µg/L	502.92 ppb	16:58:50
2	Tl 190.801†	3603.4	3789.3	516.79 µg/L	516.79 ppb	16:59:10
2	U 409.014†	7104.1	7523.4	501.74 µg/L	501.74 ppb	16:58:50
2	V 292.402†	92620.1	94078.5	506.21 µg/L	506.21 ppb	16:58:50
2	Zn 213.857†	80704.2	81720.3	502.87 µg/L	502.87 ppb	16:58:50
3	Sc RADIAL	150443.3	150443.3	102 %		16:58:22
3	Al 396.153Radial†	25179.7	24805.1	5087.6 µg/L	5087.6 ppb	16:58:22
3	Ca 317.933Radial†	86584.9	84382.8	5077.1 µg/L	5077.1 ppb	16:58:22
3	Fe 238.204 Radial†	76433.0	74964.6	5044.3 µg/L	5044.3 ppb	16:58:22
3	K 766.490 Radial†	13825.6	12272.6	5046.8 µg/L	5046.8 ppb	16:58:22
3	Mg 279.077 IEC†	12960.3	12566.4	5163.3 µg/L	5163.3 ppb	16:58:22
3	Na 589.592 Radial†	68734.3	66333.7	10068 µg/L	10068 ppb	16:58:22
3	Sr 421.552†	224638.4	220957.7	509.68 µg/L	509.68 ppb	16:58:20
3	Sc 361.383	1703789.7	1703789.7	97.078 %		16:59:13
3	Y 371.029	1020310.6	1020310.6	95.890 %		16:59:13
3	Ag 328.068†	125841.1	126182.1	507.85 µg/L	507.85 ppb	16:59:13
3	As 188.979†	1399.0	1458.8	516.35 µg/L	516.35 ppb	16:59:33
3	B 249.677†	32938.4	30699.6	498.77 µg/L	498.77 ppb	16:59:13
3	Ba 233.527†	112303.0	115845.7	504.83 µg/L	504.83 ppb	16:59:13
3	Be 313.107†	1628078.9	1677873.0	503.68 µg/L	503.68 ppb	16:59:13
3	Cd 226.502†	71318.3	73575.2	504.88 µg/L	504.88 ppb	16:59:13
3	Co 228.616†	36250.4	37514.0	507.64 µg/L	507.64 ppb	16:59:13
3	Cr 267.716†	58103.9	59674.4	502.68 µg/L	502.68 ppb	16:59:13
3	Cu 324.752†	118475.5	119252.9	504.07 µg/L	504.07 ppb	16:59:13
3	Mn 257.610†	367522.6	378410.2	505.57 µg/L	505.57 ppb	16:59:13
3	Mo 202.031†	15766.0	16275.3	518.16 µg/L	518.16 ppb	16:59:33
3	Ni 231.604†	39046.2	40299.5	506.88 µg/L	506.88 ppb	16:59:13
3	P 214.914†	10539.3	10851.5	2579.6 µg/L	2579.6 ppb	16:59:33
3	Pb 220.353†	8372.9	8528.0	523.81 µg/L	523.81 ppb	16:59:33
3	S 181.975 Axial†	1311.9	1263.7	1040.2 µg/L	1040.2 ppb	16:59:33
3	Sb 206.836†	3881.3	3920.0	515.38 µg/L	515.38 ppb	16:59:33
3	Se 196.026†	1263.3	1287.7	518 µg/L	518 ppb	16:59:33
3	SiO2†	50416.9	50181.4	5346.4 µg/L	5346.4 ppb	16:59:13
3	Si 251.611†	151913.4	155537.7	2507.2 µg/L	2507.2 ppb	16:59:13
3	Sn 189.927†	7245.0	7465.6	518.55 µg/L	518.55 ppb	16:59:33
3	Ti 334.940†	489941.5	503804.1	504.08 µg/L	504.08 ppb	16:59:13
3	Tl 190.801†	3643.4	3870.2	527.67 µg/L	527.67 ppb	16:59:33
3	U 409.014†	6984.8	7478.9	499.01 µg/L	499.01 ppb	16:59:13
3	V 292.402†	91797.2	94250.7	507.24 µg/L	507.24 ppb	16:59:13
3	Zn 213.857†	79534.1	81403.7	500.90 µg/L	500.90 ppb	16:59:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718475.4	97.915	%	0.7534				0.77%
Sc RADIAL	149544.0	101	%	0.5				0.53%
Y 371.029	1029219.9	96.727	%	0.7667				0.79%
Ag 328.068†	125796.5	506.32	µg/L	1.332	506.32	ppb	1.332	0.26%
QC value within limits for Ag 328.068 Recovery = 101.26%								
Al 396.153Radial†	24900.4	5107.5	µg/L	17.62	5107.5	ppb	17.62	0.34%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1447.4	512.35	µg/L	4.040	512.35	ppb	4.040	0.79%

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   QC value within limits for As 188.979  Recovery = 102.47%
B 249.677†            30680.4      498.46 µg/L         1.075      498.46 ppb          1.075   0.22%
   QC value within limits for B 249.677  Recovery = 99.69%
Ba 233.527†          115641.0      503.93 µg/L         1.172      503.93 ppb          1.172   0.23%
   QC value within limits for Ba 233.527  Recovery = 100.79%
Be 313.107†         1678569.5      503.90 µg/L         0.262      503.90 ppb          0.262   0.05%
   QC value within limits for Be 313.107  Recovery = 100.78%
Ca 317.933Radial†      84647.0      5093.0 µg/L         13.83      5093.0 ppb          13.83   0.27%
   QC value within limits for Ca 317.933Radial  Recovery = 101.86%
Cd 226.502†            73584.9      504.94 µg/L         0.166      504.94 ppb          0.166   0.03%
   QC value within limits for Cd 226.502  Recovery = 100.99%
Co 228.616†            37480.1      507.18 µg/L         0.799      507.18 ppb          0.799   0.16%
   QC value within limits for Co 228.616  Recovery = 101.44%
Cr 267.716†            59604.0      502.08 µg/L         0.915      502.08 ppb          0.915   0.18%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†           118882.8      502.52 µg/L         1.352      502.52 ppb          1.352   0.27%
   QC value within limits for Cu 324.752  Recovery = 100.50%
Fe 238.204 Radial†     75265.5      5064.5 µg/L         18.55      5064.5 ppb          18.55   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.29%
K 766.490 Radial†      12346.1      5077.0 µg/L         30.44      5077.0 ppb          30.44   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 101.54%
Mg 279.077 IEC†        12669.1      5205.2 µg/L         38.04      5205.2 ppb          38.04   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.10%
Mn 257.610†           377895.0      504.88 µg/L         0.639      504.88 ppb          0.639   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.98%
Mo 202.031†            16087.2      512.18 µg/L         5.210      512.18 ppb          5.210   1.02%
   QC value within limits for Mo 202.031  Recovery = 102.44%
Na 589.592 Radial†     66488.3       10092 µg/L          27.6       10092 ppb           27.6   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 100.92%
Ni 231.604†            40216.3      505.83 µg/L         0.911      505.83 ppb          0.911   0.18%
   QC value within limits for Ni 231.604  Recovery = 101.17%
P 214.914†             10732.2      2551.2 µg/L         25.06      2551.2 ppb          25.06   0.98%
   QC value within limits for P 214.914  Recovery = 102.05%
Pb 220.353†             8407.3      516.40 µg/L         6.426      516.40 ppb          6.426   1.24%
   QC value within limits for Pb 220.353  Recovery = 103.28%
S 181.975 Axial†        1247.5      1026.9 µg/L         11.66      1026.9 ppb          11.66   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 102.69%
Sb 206.836†             3888.0      511.10 µg/L         3.970      511.10 ppb          3.970   0.78%
   QC value within limits for Sb 206.836  Recovery = 102.22%
Se 196.026†             1282.9         516 µg/L           2.4         516 ppb            2.4   0.47%
   QC value within limits for Se 196.026  Recovery = 103.15%
SiO2†                  50324.7      5362.0 µg/L         13.99      5362.0 ppb          13.99   0.26%
   QC value within limits for SiO2  Recovery = 100.27%
Si 251.611†           155732.1      2510.5 µg/L          5.94      2510.5 ppb           5.94   0.24%
   QC value within limits for Si 251.611  Recovery = 100.42%
Sn 189.927†             7388.2      513.19 µg/L         4.721      513.19 ppb          4.721   0.92%
   QC value within limits for Sn 189.927  Recovery = 102.64%
Sr 421.552†           221482.3      510.89 µg/L         3.154      510.89 ppb          3.154   0.62%
   QC value within limits for Sr 421.552  Recovery = 102.18%
Ti 334.940†           502988.1      503.26 µg/L         0.719      503.26 ppb          0.719   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.65%
Tl 190.801†             3818.5      520.72 µg/L         6.041      520.72 ppb          6.041   1.16%
   QC value within limits for Tl 190.801  Recovery = 104.14%
U 409.014†              7651.6      509.78 µg/L        16.349      509.78 ppb         16.349   3.21%
   QC value within limits for U 409.014  Recovery = 101.96%
V 292.402†             94122.5      506.50 µg/L         0.646      506.50 ppb          0.646   0.13%
   QC value within limits for V 292.402  Recovery = 101.30%
Zn 213.857†            81463.7      501.27 µg/L         1.442      501.27 ppb          1.442   0.29%
   QC value within limits for Zn 213.857  Recovery = 100.25%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 16:59:41
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	149825.5	149825.5	101	%			17:00:10
1	Al 396.153Radial†	-41.4	22.0	4.5262	µg/L	4.5262	ppb	17:00:30
1	Ca 317.933Radial†	670.9	-36.0	-2.1668	µg/L	-2.1668	ppb	17:00:30
1	Fe 238.204 Radial†	145.6	2.9	0.1962	µg/L	0.1962	ppb	17:00:30
1	K 766.490 Radial†	1426.9	95.1	39.120	µg/L	39.120	ppb	17:00:10
1	Mg 279.077 IEC†	176.4	5.2	2.1463	µg/L	2.1463	ppb	17:00:30
1	Na 589.592 Radial†	1352.8	128.1	19.422	µg/L	19.422	ppb	17:00:10
1	Sr 421.552†	-227.6	-3.0	-0.0068	µg/L	-0.0068	ppb	17:00:10
1	Sc 361.383	1764835.2	1764835.2	100.56	%			17:01:32
1	Y 371.029	1069900.1	1069900.1	100.55	%			17:01:32
1	Ag 328.068†	3768.3	300.4	1.1888	µg/L	1.1888	ppb	17:01:34
1	As 188.979†	-11.1	6.7	2.3224	µg/L	2.3224	ppb	17:01:54
1	B 249.677†	3263.2	14.8	0.2419	µg/L	0.2419	ppb	17:01:54
1	Ba 233.527†	-157.4	5.6	0.0243	µg/L	0.0243	ppb	17:01:54
1	Be 313.107†	-752.2	37.6	0.0106	µg/L	0.0106	ppb	17:01:34
1	Cd 226.502†	-106.0	4.6	0.0315	µg/L	0.0315	ppb	17:01:54
1	Co 228.616†	-180.5	-7.1	-0.0954	µg/L	-0.0954	ppb	17:01:54
1	Cr 267.716†	189.3	9.7	0.0836	µg/L	0.0836	ppb	17:01:54
1	Cu 324.752†	2837.6	32.9	0.1369	µg/L	0.1369	ppb	17:01:34
1	Mn 257.610†	168.5	-8.0	-0.0108	µg/L	-0.0108	ppb	17:01:54
1	Mo 202.031†	-27.2	7.7	0.2445	µg/L	0.2445	ppb	17:01:54
1	Ni 231.604†	-71.9	6.4	0.0807	µg/L	0.0807	ppb	17:01:54
1	P 214.914†	26.2	21.1	5.0333	µg/L	5.0333	ppb	17:01:54
1	Pb 220.353†	90.4	-7.1	-0.4327	µg/L	-0.4327	ppb	17:01:54
1	S 181.975 Axial†	89.0	0.8	0.6968	µg/L	0.6968	ppb	17:01:54
1	Sb 206.836†	80.1	1.6	0.2148	µg/L	0.2148	ppb	17:01:54
1	Se 196.026†	12.1	-1.5	-0.605	µg/L	-0.605	ppb	17:01:54
1	SiO2†	1691.2	-71.3	-7.6443	µg/L	-7.6443	ppb	17:01:54
1	Si 251.611†	802.7	-150.3	-2.4405	µg/L	-2.4405	ppb	17:01:54
1	Sn 189.927†	5.6	8.1	0.5622	µg/L	0.5622	ppb	17:01:54
1	Ti 334.940†	648.3	-240.9	-0.2406	µg/L	-0.2406	ppb	17:01:34
1	Tl 190.801†	-113.4	4.3	0.5811	µg/L	0.5811	ppb	17:01:54
1	U 409.014†	-322.0	-36.5	-2.2948	µg/L	-2.2948	ppb	17:01:34
1	V 292.402†	274.6	-36.7	-0.1933	µg/L	-0.1933	ppb	17:01:34
1	Zn 213.857†	538.9	11.3	0.0695	µg/L	0.0695	ppb	17:01:54
2	Sc RADIAL	154358.9	154358.9	104	%			17:00:32
2	Al 396.153Radial†	-68.9	-3.1	-0.6411	µg/L	-0.6411	ppb	17:00:52
2	Ca 317.933Radial†	649.5	-75.9	-4.5693	µg/L	-4.5693	ppb	17:00:52
2	Fe 238.204 Radial†	162.3	14.7	0.9910	µg/L	0.9910	ppb	17:00:52
2	K 766.490 Radial†	1496.9	120.8	49.716	µg/L	49.716	ppb	17:00:32
2	Mg 279.077 IEC†	172.4	-3.7	-1.5219	µg/L	-1.5219	ppb	17:00:52
2	Na 589.592 Radial†	1529.5	258.2	39.157	µg/L	39.157	ppb	17:00:32
2	Sr 421.552†	-214.6	16.2	0.0373	µg/L	0.0373	ppb	17:00:32
2	Sc 361.383	1766136.3	1766136.3	100.63	%			17:01:56
2	Y 371.029	1069430.1	1069430.1	100.51	%			17:01:56
2	Ag 328.068†	3213.8	-253.4	-1.0074	µg/L	-1.0074	ppb	17:01:58
2	As 188.979†	-17.3	0.5	0.1849	µg/L	0.1849	ppb	17:02:19
2	B 249.677†	3210.2	-40.2	-0.6565	µg/L	-0.6565	ppb	17:02:19
2	Ba 233.527†	-146.3	16.8	0.0730	µg/L	0.0730	ppb	17:02:19
2	Be 313.107†	-621.4	168.1	0.0500	µg/L	0.0500	ppb	17:01:58
2	Cd 226.502†	-122.3	-11.5	-0.0790	µg/L	-0.0790	ppb	17:02:19
2	Co 228.616†	-167.3	6.2	0.0841	µg/L	0.0841	ppb	17:02:19
2	Cr 267.716†	156.6	-22.9	-0.1919	µg/L	-0.1919	ppb	17:02:19
2	Cu 324.752†	2744.8	-61.3	-0.2595	µg/L	-0.2595	ppb	17:01:58
2	Mn 257.610†	188.7	11.9	0.0160	µg/L	0.0160	ppb	17:02:19
2	Mo 202.031†	-39.1	-4.1	-0.1293	µg/L	-0.1293	ppb	17:02:19
2	Ni 231.604†	-60.6	17.7	0.2227	µg/L	0.2227	ppb	17:02:19
2	P 214.914†	0.6	-4.4	-1.0487	µg/L	-1.0487	ppb	17:02:19
2	Pb 220.353†	74.0	-23.4	-1.4319	µg/L	-1.4319	ppb	17:02:19

2	S 181.975 Axial†	92.2	3.9	3.2288 µg/L	3.2288 ppb	17:02:19
2	Sb 206.836†	77.6	-0.9	-0.1180 µg/L	-0.1180 ppb	17:02:19
2	Se 196.026†	1.0	-12.5	-5.02 µg/L	-5.02 ppb	17:02:19
2	SiO2†	1685.5	-78.2	-8.3720 µg/L	-8.3720 ppb	17:02:19
2	Si 251.611†	746.6	-206.7	-3.3496 µg/L	-3.3496 ppb	17:02:19
2	Sn 189.927†	10.3	12.7	0.8809 µg/L	0.8809 ppb	17:02:19
2	Ti 334.940†	719.8	-170.3	-0.1700 µg/L	-0.1700 ppb	17:01:58
2	Tl 190.801†	-109.7	8.1	1.0864 µg/L	1.0864 ppb	17:02:19
2	U 409.014†	-308.2	-22.5	-1.4032 µg/L	-1.4032 ppb	17:01:58
2	V 292.402†	337.0	25.0	0.1297 µg/L	0.1297 ppb	17:01:58
2	Zn 213.857†	520.1	-7.7	-0.0490 µg/L	-0.0490 ppb	17:02:19
3	Sc RADIAL	151821.2	151821.2	103 %		17:00:54
3	Al 396.153Radial†	-35.8	28.1	5.7660 µg/L	5.7660 ppb	17:01:14
3	Ca 317.933Radial†	649.0	-66.1	-3.9762 µg/L	-3.9762 ppb	17:01:14
3	Fe 238.204 Radial†	152.9	8.2	0.5536 µg/L	0.5536 ppb	17:01:14
3	K 766.490 Radial†	1341.6	-6.4	-2.6589 µg/L	-2.6589 ppb	17:00:54
3	Mg 279.077 IEC†	176.0	2.6	1.0683 µg/L	1.0683 ppb	17:01:14
3	Na 589.592 Radial†	1495.8	249.9	37.942 µg/L	37.942 ppb	17:00:54
3	Sr 421.552†	-325.5	-95.3	-0.2198 µg/L	-0.2198 ppb	17:00:54
3	Sc 361.383	1779477.4	1779477.4	101.39 %		17:02:21
3	Y 371.029	1078016.4	1078016.4	101.31 %		17:02:21
3	Ag 328.068†	3389.2	-104.4	-0.4278 µg/L	-0.4278 ppb	17:02:23
3	As 188.979†	-17.2	0.7	0.2529 µg/L	0.2529 ppb	17:02:43
3	B 249.677†	3239.4	-35.4	-0.5764 µg/L	-0.5764 ppb	17:02:43
3	Ba 233.527†	-167.6	-3.1	-0.0137 µg/L	-0.0137 ppb	17:02:43
3	Be 313.107†	-756.0	40.0	0.0096 µg/L	0.0096 ppb	17:02:23
3	Cd 226.502†	-100.9	10.5	0.0724 µg/L	0.0724 ppb	17:02:43
3	Co 228.616†	-186.2	-11.2	-0.1522 µg/L	-0.1522 ppb	17:02:43
3	Cr 267.716†	173.8	-7.2	-0.0544 µg/L	-0.0544 ppb	17:02:43
3	Cu 324.752†	2874.1	45.7	0.1860 µg/L	0.1860 ppb	17:02:23
3	Mn 257.610†	174.4	-3.5	-0.0048 µg/L	-0.0048 ppb	17:02:43
3	Mo 202.031†	-24.1	11.0	0.3501 µg/L	0.3501 ppb	17:02:43
3	Ni 231.604†	-59.8	18.9	0.2376 µg/L	0.2376 ppb	17:02:43
3	P 214.914†	11.8	6.6	1.5759 µg/L	1.5759 ppb	17:02:43
3	Pb 220.353†	73.9	-24.0	-1.4651 µg/L	-1.4651 ppb	17:02:43
3	S 181.975 Axial†	95.0	6.0	4.8862 µg/L	4.8862 ppb	17:02:43
3	Sb 206.836†	84.7	5.4	0.7191 µg/L	0.7191 ppb	17:02:43
3	Se 196.026†	13.3	-0.4	-0.175 µg/L	-0.175 ppb	17:02:43
3	SiO2†	1699.4	-77.0	-8.2473 µg/L	-8.2473 ppb	17:02:43
3	Si 251.611†	782.0	-177.4	-2.8742 µg/L	-2.8742 ppb	17:02:43
3	Sn 189.927†	-6.6	-4.0	-0.2753 µg/L	-0.2753 ppb	17:02:43
3	Ti 334.940†	871.2	-26.3	-0.0232 µg/L	-0.0232 ppb	17:02:23
3	Tl 190.801†	-113.4	5.2	0.6959 µg/L	0.6959 ppb	17:02:43
3	U 409.014†	-417.5	-128.0	-8.0312 µg/L	-8.0312 ppb	17:02:23
3	V 292.402†	265.4	-48.1	-0.2572 µg/L	-0.2572 ppb	17:02:23
3	Zn 213.857†	508.3	-23.2	-0.1456 µg/L	-0.1456 ppb	17:02:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770149.6	100.86	%	0.462				0.46%
Sc RADIAL	152001.9	103	%	1.5				1.49%
Y 371.029	1072448.9	100.79	%	0.454				0.45%
Ag 328.068†	-19.2	-0.0821	µg/L	1.13817	-0.0821	ppb	1.13817	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.6	3.2170	µg/L	3.39828	3.2170	ppb	3.39828	105.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.9201	µg/L	1.21495	0.9201	ppb	1.21495	132.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.3	-0.3303	µg/L	0.49719	-0.3303	ppb	0.49719	150.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.4	0.0278	µg/L	0.04348	0.0278	ppb	0.04348	156.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	81.9	0.0234	µg/L	0.02306	0.0234	ppb	0.02306	98.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-59.3	-3.5708	µg/L	1.25151	-3.5708	ppb	1.25151	35.05%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.2	0.0083	µg/L	0.07832	0.0083	ppb	0.07832	948.51%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.0	-0.0545	µg/L	0.12330	-0.0545	ppb	0.12330	226.30%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.8     -0.0542 µg/L      0.13777     -0.0542 ppb       0.13777 254.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               5.8      0.0212 µg/L      0.24425      0.0212 ppb       0.24425 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        8.6      0.5803 µg/L      0.39803      0.5803 ppb       0.39803  68.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        69.8      28.726 µg/L      27.6913      28.726 ppb       27.6913  96.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.4      0.5642 µg/L      1.88533      0.5642 ppb       1.88533 334.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               0.1      0.0001 µg/L      0.01404      0.0001 ppb       0.01404 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.9      0.1551 µg/L      0.25191      0.1551 ppb       0.25191 162.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      212.0      32.174 µg/L      11.0603      32.174 ppb       11.0603  34.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.3      0.1804 µg/L      0.08661      0.1804 ppb       0.08661  48.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.8      1.8535 µg/L      3.05049      1.8535 ppb       3.05049 164.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -18.2     -1.1099 µg/L      0.58669     -1.1099 ppb       0.58669  52.86%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.6      2.9373 µg/L      2.10985      2.9373 ppb       2.10985  71.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      0.2720 µg/L      0.42149      0.2720 ppb       0.42149 154.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -4.8       -1.93 µg/L        2.683       -1.93 ppb         2.683 138.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -75.5     -8.0878 µg/L      0.38919     -8.0878 ppb       0.38919   4.81%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -178.1     -2.8881 µg/L      0.45468     -2.8881 ppb       0.45468  15.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.6      0.3892 µg/L      0.59721      0.3892 ppb       0.59721 153.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -27.4     -0.0631 µg/L      0.13749     -0.0631 ppb       0.13749 217.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -145.8     -0.1446 µg/L      0.11091     -0.1446 ppb       0.11091  76.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.9      0.7878 µg/L      0.26491      0.7878 ppb       0.26491  33.63%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -62.3     -3.9097 µg/L      3.59701     -3.9097 ppb       3.59701  92.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -19.9     -0.1069 µg/L      0.20744     -0.1069 ppb       0.20744 194.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -6.5     -0.0417 µg/L      0.10773     -0.0417 ppb       0.10773 258.22%
   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: 7
Date Collected: 3/30/2010 17:18:48
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	150447.1	150447.1	102	%			17:19:22
1	Al 396.153Radial†	25401.2	25022.2	5132.7	µg/L	5132.7	ppb	17:19:22
1	Ca 317.933Radial†	86818.2	84609.9	5090.8	µg/L	5090.8	ppb	17:19:22
1	Fe 238.204 Radial†	76699.6	75224.6	5061.8	µg/L	5061.8	ppb	17:19:22
1	K 766.490 Radial†	13929.7	12374.5	5088.7	µg/L	5088.7	ppb	17:19:22
1	Mg 279.077 IEC†	12998.2	12603.3	5178.2	µg/L	5178.2	ppb	17:19:22
1	Na 589.592 Radial†	68511.6	66113.1	10035	µg/L	10035	ppb	17:19:22
1	Sr 421.552†	228277.5	224527.9	517.91	µg/L	517.91	ppb	17:19:20
1	Sc 361.383	1756736.2	1756736.2	100.09	%			17:19:49
1	Y 371.029	1051471.7	1051471.7	98.818	%			17:19:49
1	Ag 328.068†	129586.2	126016.7	507.22	µg/L	507.22	ppb	17:19:49
1	As 188.979†	1431.2	1447.5	512.40	µg/L	512.40	ppb	17:20:09
1	B 249.677†	34020.5	30758.0	499.72	µg/L	499.72	ppb	17:19:49
1	Ba 233.527†	115660.0	115713.0	504.25	µg/L	504.25	ppb	17:19:49
1	Be 313.107†	1683097.6	1682293.9	505.01	µg/L	505.01	ppb	17:19:49
1	Cd 226.502†	73552.2	73592.8	505.00	µg/L	505.00	ppb	17:19:49
1	Co 228.616†	37413.9	37551.0	508.14	µg/L	508.14	ppb	17:19:49
1	Cr 267.716†	59943.1	59707.9	502.95	µg/L	502.95	ppb	17:19:49
1	Cu 324.752†	122063.0	119158.8	503.68	µg/L	503.68	ppb	17:19:49
1	Mn 257.610†	378802.5	378269.2	505.38	µg/L	505.38	ppb	17:19:49
1	Mo 202.031†	16008.3	16027.9	510.30	µg/L	510.30	ppb	17:20:09
1	Ni 231.604†	40299.1	40338.9	507.37	µg/L	507.37	ppb	17:19:49
1	P 214.914†	10741.1	10725.9	2549.7	µg/L	2549.7	ppb	17:20:09
1	Pb 220.353†	8473.7	8368.8	514.04	µg/L	514.04	ppb	17:20:09
1	S 181.975 Axial†	1329.1	1240.2	1020.9	µg/L	1020.9	ppb	17:20:09
1	Sb 206.836†	3973.9	3892.0	511.59	µg/L	511.59	ppb	17:20:09
1	Se 196.026†	1283.6	1268.8	510	µg/L	510	ppb	17:20:09
1	SiO2†	52268.2	50465.7	5377.2	µg/L	5377.2	ppb	17:19:49
1	Si 251.611†	156995.9	155899.0	2513.2	µg/L	2513.2	ppb	17:19:49
1	Sn 189.927†	7392.9	7388.5	513.21	µg/L	513.21	ppb	17:20:09
1	Ti 334.940†	505007.8	503645.4	503.92	µg/L	503.92	ppb	17:19:49
1	Tl 190.801†	3682.4	3796.0	517.71	µg/L	517.71	ppb	17:20:09
1	U 409.014†	7336.0	7612.8	507.49	µg/L	507.49	ppb	17:19:49
1	V 292.402†	94964.3	94564.8	508.83	µg/L	508.83	ppb	17:19:49
1	Zn 213.857†	82267.7	81665.5	502.52	µg/L	502.52	ppb	17:19:49
2	Sc RADIAL	153172.3	153172.3	104	%			17:19:26
2	Al 396.153Radial†	25695.3	24862.0	5099.7	µg/L	5099.7	ppb	17:19:26
2	Ca 317.933Radial†	88610.7	84822.1	5103.5	µg/L	5103.5	ppb	17:19:26
2	Fe 238.204 Radial†	78237.5	75368.0	5071.4	µg/L	5071.4	ppb	17:19:26
2	K 766.490 Radial†	14116.8	12311.6	5062.8	µg/L	5062.8	ppb	17:19:26
2	Mg 279.077 IEC†	13282.0	12649.9	5197.3	µg/L	5197.3	ppb	17:19:26
2	Na 589.592 Radial†	70025.6	66376.5	10075	µg/L	10075	ppb	17:19:26
2	Sr 421.552†	229523.7	221739.8	511.48	µg/L	511.48	ppb	17:19:24
2	Sc 361.383	1762706.8	1762706.8	100.43	%			17:20:12
2	Y 371.029	1055600.2	1055600.2	99.206	%			17:20:12
2	Ag 328.068†	130291.0	126280.0	508.30	µg/L	508.30	ppb	17:20:12
2	As 188.979†	1437.7	1449.1	512.97	µg/L	512.97	ppb	17:20:32
2	B 249.677†	34155.5	30777.4	500.03	µg/L	500.03	ppb	17:20:12
2	Ba 233.527†	116399.1	116057.5	505.75	µg/L	505.75	ppb	17:20:12
2	Be 313.107†	1693458.0	1686913.9	506.40	µg/L	506.40	ppb	17:20:12
2	Cd 226.502†	74111.5	73900.8	507.11	µg/L	507.11	ppb	17:20:12
2	Co 228.616†	37664.8	37674.2	509.81	µg/L	509.81	ppb	17:20:12
2	Cr 267.716†	60247.9	59808.5	503.80	µg/L	503.80	ppb	17:20:12
2	Cu 324.752†	122964.9	119643.7	505.74	µg/L	505.74	ppb	17:20:12
2	Mn 257.610†	381536.3	379709.3	507.31	µg/L	507.31	ppb	17:20:12
2	Mo 202.031†	16061.8	16027.0	510.27	µg/L	510.27	ppb	17:20:32
2	Ni 231.604†	40512.3	40414.9	508.33	µg/L	508.33	ppb	17:20:12
2	P 214.914†	10769.9	10718.3	2547.9	µg/L	2547.9	ppb	17:20:32
2	Pb 220.353†	8523.3	8389.5	515.30	µg/L	515.30	ppb	17:20:32

2	S 181.975 Axial†	1334.7	1241.2	1021.8 µg/L	1021.8 ppb	17:20:32
2	Sb 206.836†	3976.6	3881.3	510.17 µg/L	510.17 ppb	17:20:32
2	Se 196.026†	1295.2	1276.0	513 µg/L	513 ppb	17:20:32
2	SiO2†	52513.8	50533.4	5384.4 µg/L	5384.4 ppb	17:20:12
2	Si 251.611†	158194.5	156561.2	2524.0 µg/L	2524.0 ppb	17:20:12
2	Sn 189.927†	7405.6	7376.1	512.37 µg/L	512.37 ppb	17:20:32
2	Ti 334.940†	509340.5	506250.4	506.52 µg/L	506.52 ppb	17:20:12
2	Tl 190.801†	3689.5	3790.6	517.02 µg/L	517.02 ppb	17:20:32
2	U 409.014†	7505.9	7757.1	516.63 µg/L	516.63 ppb	17:20:12
2	V 292.402†	95608.6	94885.0	510.53 µg/L	510.53 ppb	17:20:12
2	Zn 213.857†	82875.7	81992.4	504.54 µg/L	504.54 ppb	17:20:12
3	Sc RADIAL	152045.9	152045.9	103 %		17:19:30
3	Al 396.153Radial†	25587.5	24940.8	5115.9 µg/L	5115.9 ppb	17:19:30
3	Ca 317.933Radial†	87880.1	84745.3	5098.9 µg/L	5098.9 ppb	17:19:30
3	Fe 238.204 Radial†	77397.9	75111.0	5054.1 µg/L	5054.1 ppb	17:19:30
3	K 766.490 Radial†	14139.5	12434.6	5113.4 µg/L	5113.4 ppb	17:19:30
3	Mg 279.077 IEC†	13163.6	12629.8	5189.1 µg/L	5189.1 ppb	17:19:30
3	Na 589.592 Radial†	69543.6	66408.6	10079 µg/L	10079 ppb	17:19:30
3	Sr 421.552†	226721.6	220656.4	508.98 µg/L	508.98 ppb	17:19:28
3	Sc 361.383	1744223.5	1744223.5	99.382 %		17:20:35
3	Y 371.029	1044447.8	1044447.8	98.158 %		17:20:35
3	Ag 328.068†	128861.6	126216.4	508.02 µg/L	508.02 ppb	17:20:35
3	As 188.979†	1418.6	1445.1	511.56 µg/L	511.56 ppb	17:20:55
3	B 249.677†	34051.2	31032.7	504.20 µg/L	504.20 ppb	17:20:35
3	Ba 233.527†	114922.7	115799.9	504.62 µg/L	504.62 ppb	17:20:35
3	Be 313.107†	1672379.2	1683571.6	505.40 µg/L	505.40 ppb	17:20:35
3	Cd 226.502†	73206.3	73771.8	506.23 µg/L	506.23 ppb	17:20:35
3	Co 228.616†	37218.9	37622.9	509.11 µg/L	509.11 ppb	17:20:35
3	Cr 267.716†	59519.2	59711.0	502.98 µg/L	502.98 ppb	17:20:35
3	Cu 324.752†	121680.7	119649.0	505.75 µg/L	505.75 ppb	17:20:35
3	Mn 257.610†	376948.2	379118.2	506.52 µg/L	506.52 ppb	17:20:35
3	Mo 202.031†	15874.2	16007.7	509.65 µg/L	509.65 ppb	17:20:55
3	Ni 231.604†	40030.7	40357.7	507.61 µg/L	507.61 ppb	17:20:35
3	P 214.914†	10643.0	10704.2	2544.5 µg/L	2544.5 ppb	17:20:55
3	Pb 220.353†	8430.7	8386.1	515.10 µg/L	515.10 ppb	17:20:55
3	S 181.975 Axial†	1321.8	1242.3	1022.7 µg/L	1022.7 ppb	17:20:55
3	Sb 206.836†	3916.5	3862.8	507.74 µg/L	507.74 ppb	17:20:55
3	Se 196.026†	1283.9	1278.3	514 µg/L	514 ppb	17:20:55
3	SiO2†	51951.5	50521.6	5383.2 µg/L	5383.2 ppb	17:20:35
3	Si 251.611†	156290.5	156314.4	2520.0 µg/L	2520.0 ppb	17:20:35
3	Sn 189.927†	7333.8	7381.9	512.77 µg/L	512.77 ppb	17:20:55
3	Ti 334.940†	502776.2	505019.3	505.29 µg/L	505.29 ppb	17:20:35
3	Tl 190.801†	3676.0	3816.0	520.41 µg/L	520.41 ppb	17:20:55
3	U 409.014†	7327.7	7657.0	510.29 µg/L	510.29 ppb	17:20:35
3	V 292.402†	94376.7	94654.2	509.30 µg/L	509.30 ppb	17:20:35
3	Zn 213.857†	81702.2	81686.1	502.64 µg/L	502.64 ppb	17:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754555.5	99.970	%	0.5374				0.54%
Sc RADIAL	151888.5	103	%	0.9				0.90%
Y 371.029	1050506.6	98.728	%	0.5299				0.54%
Ag 328.068†	126171.0	507.85	µg/L	0.560	507.85	ppb	0.560	0.11%
QC value within limits for Ag 328.068 Recovery = 101.57%								
Al 396.153Radial†	24941.7	5116.1	µg/L	16.51	5116.1	ppb	16.51	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.32%								
As 188.979†	1447.2	512.31	µg/L	0.710	512.31	ppb	0.710	0.14%
QC value within limits for As 188.979 Recovery = 102.46%								
B 249.677†	30856.0	501.32	µg/L	2.500	501.32	ppb	2.500	0.50%
QC value within limits for B 249.677 Recovery = 100.26%								
Ba 233.527†	115856.8	504.87	µg/L	0.781	504.87	ppb	0.781	0.15%
QC value within limits for Ba 233.527 Recovery = 100.97%								
Be 313.107†	1684259.8	505.60	µg/L	0.717	505.60	ppb	0.717	0.14%
QC value within limits for Be 313.107 Recovery = 101.12%								
Ca 317.933Radial†	84725.8	5097.7	µg/L	6.46	5097.7	ppb	6.46	0.13%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	73755.1	506.11	µg/L	1.062	506.11	ppb	1.062	0.21%
QC value within limits for Cd 226.502 Recovery = 101.22%								
Co 228.616†	37616.0	509.02	µg/L	0.837	509.02	ppb	0.837	0.16%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            59742.5      503.24 µg/L         0.479      503.24 ppb          0.479   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.65%
Cu 324.752†           119483.8      505.06 µg/L         1.190      505.06 ppb          1.190   0.24%
   QC value within limits for Cu 324.752  Recovery = 101.01%
Fe 238.204 Radial†     75234.5      5062.4 µg/L          8.67      5062.4 ppb           8.67   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      12373.6      5088.3 µg/L         25.32      5088.3 ppb          25.32   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 101.77%
Mg 279.077 IEC†        12627.7      5188.2 µg/L          9.58      5188.2 ppb           9.58   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.76%
Mn 257.610†           379032.3      506.40 µg/L         0.967      506.40 ppb          0.967   0.19%
   QC value within limits for Mn 257.610  Recovery = 101.28%
Mo 202.031†            16020.9      510.07 µg/L         0.363      510.07 ppb          0.363   0.07%
   QC value within limits for Mo 202.031  Recovery = 102.01%
Na 589.592 Radial†     66299.4       10063 µg/L          24.6       10063 ppb           24.6   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.63%
Ni 231.604†            40370.5      507.77 µg/L         0.497      507.77 ppb          0.497   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.55%
P 214.914†             10716.1      2547.4 µg/L          2.63      2547.4 ppb           2.63   0.10%
   QC value within limits for P 214.914  Recovery = 101.89%
Pb 220.353†             8381.5      514.81 µg/L         0.677      514.81 ppb          0.677   0.13%
   QC value within limits for Pb 220.353  Recovery = 102.96%
S 181.975 Axial†        1241.2      1021.8 µg/L          0.88      1021.8 ppb           0.88   0.09%
   QC value within limits for S 181.975 Axial  Recovery = 102.18%
Sb 206.836†             3878.7      509.83 µg/L         1.944      509.83 ppb          1.944   0.38%
   QC value within limits for Sb 206.836  Recovery = 101.97%
Se 196.026†             1274.4         512 µg/L           2.0         512 ppb            2.0   0.39%
   QC value within limits for Se 196.026  Recovery = 102.47%
SiO2†                  50506.9      5381.6 µg/L          3.88      5381.6 ppb           3.88   0.07%
   QC value within limits for SiO2  Recovery = 100.64%
Si 251.611†           156258.2      2519.1 µg/L          5.42      2519.1 ppb           5.42   0.22%
   QC value within limits for Si 251.611  Recovery = 100.76%
Sn 189.927†             7382.2      512.78 µg/L         0.424      512.78 ppb          0.424   0.08%
   QC value within limits for Sn 189.927  Recovery = 102.56%
Sr 421.552†           222308.0      512.79 µg/L         4.608      512.79 ppb          4.608   0.90%
   QC value within limits for Sr 421.552  Recovery = 102.56%
Ti 334.940†           504971.7      505.24 µg/L         1.303      505.24 ppb          1.303   0.26%
   QC value within limits for Ti 334.940  Recovery = 101.05%
Tl 190.801†             3800.8      518.38 µg/L         1.791      518.38 ppb          1.791   0.35%
   QC value within limits for Tl 190.801  Recovery = 103.68%
U 409.014†              7675.7      511.47 µg/L         4.685      511.47 ppb          4.685   0.92%
   QC value within limits for U 409.014  Recovery = 102.29%
V 292.402†             94701.3      509.55 µg/L         0.881      509.55 ppb          0.881   0.17%
   QC value within limits for V 292.402  Recovery = 101.91%
Zn 213.857†            81781.3      503.23 µg/L         1.132      503.23 ppb          1.132   0.22%
   QC value within limits for Zn 213.857  Recovery = 100.65%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 17:21:02
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	151612.6	151612.6	103	%			17:21:31
1	Al 396.153Radial†	-56.0	8.2	1.6789	µg/L	1.6789	ppb	17:21:51
1	Ca 317.933Radial†	667.4	-47.3	-2.8438	µg/L	-2.8438	ppb	17:21:51
1	Fe 238.204 Radial†	163.6	18.8	1.2660	µg/L	1.2660	ppb	17:21:51
1	K 766.490 Radial†	1549.7	198.2	81.562	µg/L	81.562	ppb	17:21:31
1	Mg 279.077 IEC†	197.6	23.9	9.8035	µg/L	9.8035	ppb	17:21:51
1	Na 589.592 Radial†	1504.5	260.3	39.459	µg/L	39.459	ppb	17:21:31
1	Sr 421.552†	-197.6	29.0	0.0669	µg/L	0.0669	ppb	17:21:31
1	Sc 361.383	1786652.6	1786652.6	101.80	%			17:22:39
1	Y 371.029	1082214.6	1082214.6	101.71	%			17:22:39
1	Ag 328.068†	3829.2	314.5	1.2474	µg/L	1.2474	ppb	17:22:41
1	As 188.979†	-12.2	5.7	1.9850	µg/L	1.9850	ppb	17:23:01
1	B 249.677†	3259.7	-28.3	-0.4609	µg/L	-0.4609	ppb	17:23:01
1	Ba 233.527†	-146.1	18.7	0.0814	µg/L	0.0814	ppb	17:23:01
1	Be 313.107†	-808.0	-8.2	-0.0030	µg/L	-0.0030	ppb	17:22:41
1	Cd 226.502†	-124.0	-11.8	-0.0807	µg/L	-0.0807	ppb	17:23:01
1	Co 228.616†	-172.8	2.7	0.0368	µg/L	0.0368	ppb	17:23:01
1	Cr 267.716†	168.4	-13.2	-0.1097	µg/L	-0.1097	ppb	17:23:01
1	Cu 324.752†	2861.6	22.1	0.0918	µg/L	0.0918	ppb	17:22:41
1	Mn 257.610†	203.5	24.3	0.0321	µg/L	0.0321	ppb	17:23:01
1	Mo 202.031†	-21.0	14.2	0.4512	µg/L	0.4512	ppb	17:23:01
1	Ni 231.604†	-43.7	35.0	0.4399	µg/L	0.4399	ppb	17:23:01
1	P 214.914†	16.6	11.3	2.6998	µg/L	2.6998	ppb	17:23:01
1	Pb 220.353†	85.6	-12.9	-0.7865	µg/L	-0.7865	ppb	17:23:01
1	S 181.975 Axial†	90.7	1.4	1.1791	µg/L	1.1791	ppb	17:23:01
1	Sb 206.836†	92.8	13.1	1.7284	µg/L	1.7284	ppb	17:23:01
1	Se 196.026†	20.3	6.4	2.54	µg/L	2.54	ppb	17:23:01
1	SiO2†	1716.5	-67.0	-7.1932	µg/L	-7.1932	ppb	17:23:01
1	Si 251.611†	786.3	-176.3	-2.8660	µg/L	-2.8660	ppb	17:23:01
1	Sn 189.927†	12.2	14.5	1.0060	µg/L	1.0060	ppb	17:23:01
1	Ti 334.940†	822.6	-77.5	-0.0777	µg/L	-0.0777	ppb	17:22:41
1	Tl 190.801†	-99.1	19.8	2.6569	µg/L	2.6569	ppb	17:23:01
1	U 409.014†	-320.3	-30.9	-1.9385	µg/L	-1.9385	ppb	17:22:41
1	V 292.402†	311.2	-4.2	-0.0194	µg/L	-0.0194	ppb	17:22:41
1	Zn 213.857†	539.4	5.3	0.0299	µg/L	0.0299	ppb	17:23:01
2	Sc RADIAL	151711.2	151711.2	103	%			17:21:53
2	Al 396.153Radial†	-61.3	3.2	0.6395	µg/L	0.6395	ppb	17:22:13
2	Ca 317.933Radial†	632.0	-82.1	-4.9402	µg/L	-4.9402	ppb	17:22:13
2	Fe 238.204 Radial†	152.2	7.6	0.5125	µg/L	0.5125	ppb	17:22:13
2	K 766.490 Radial†	1537.5	185.4	76.289	µg/L	76.289	ppb	17:21:53
2	Mg 279.077 IEC†	173.8	0.6	0.2447	µg/L	0.2447	ppb	17:22:13
2	Na 589.592 Radial†	1416.7	173.8	26.320	µg/L	26.320	ppb	17:21:53
2	Sr 421.552†	-295.9	-66.7	-0.1537	µg/L	-0.1537	ppb	17:21:53
2	Sc 361.383	1800964.8	1800964.8	102.61	%			17:23:03
2	Y 371.029	1089468.5	1089468.5	102.39	%			17:23:03
2	Ag 328.068†	3309.5	-221.9	-0.8860	µg/L	-0.8860	ppb	17:23:05
2	As 188.979†	-17.3	0.8	0.2871	µg/L	0.2871	ppb	17:23:26
2	B 249.677†	3208.8	-103.3	-1.6830	µg/L	-1.6830	ppb	17:23:26
2	Ba 233.527†	-167.1	-0.7	-0.0027	µg/L	-0.0027	ppb	17:23:26
2	Be 313.107†	-614.2	187.0	0.0548	µg/L	0.0548	ppb	17:23:05
2	Cd 226.502†	-73.2	38.7	0.2657	µg/L	0.2657	ppb	17:23:26
2	Co 228.616†	-188.1	-10.8	-0.1466	µg/L	-0.1466	ppb	17:23:26
2	Cr 267.716†	158.3	-24.3	-0.2015	µg/L	-0.2015	ppb	17:23:26
2	Cu 324.752†	2677.3	-179.9	-0.7614	µg/L	-0.7614	ppb	17:23:05
2	Mn 257.610†	177.7	-2.4	-0.0032	µg/L	-0.0032	ppb	17:23:26
2	Mo 202.031†	-24.4	11.0	0.3508	µg/L	0.3508	ppb	17:23:26
2	Ni 231.604†	-78.6	1.3	0.0163	µg/L	0.0163	ppb	17:23:26
2	P 214.914†	5.6	0.5	0.1210	µg/L	0.1210	ppb	17:23:26
2	Pb 220.353†	99.5	0.0	0.0062	µg/L	0.0062	ppb	17:23:26

2	S 181.975 Axial†	88.6	-1.3	-1.0766 µg/L	-1.0766 ppb	17:23:26
2	Sb 206.836†	81.5	1.3	0.1826 µg/L	0.1826 ppb	17:23:26
2	Se 196.026†	-3.8	-17.2	-6.90 µg/L	-6.90 ppb	17:23:26
2	SiO2†	1740.4	-57.1	-6.1143 µg/L	-6.1143 ppb	17:23:26
2	Si 251.611†	757.6	-210.4	-3.4098 µg/L	-3.4098 ppb	17:23:26
2	Sn 189.927†	-2.7	-0.1	-0.0082 µg/L	-0.0082 ppb	17:23:26
2	Ti 334.940†	623.6	-277.8	-0.2767 µg/L	-0.2767 ppb	17:23:05
2	Tl 190.801†	-113.2	6.7	0.9019 µg/L	0.9019 ppb	17:23:26
2	U 409.014†	-361.4	-68.4	-4.2789 µg/L	-4.2789 ppb	17:23:05
2	V 292.402†	336.0	17.6	0.0936 µg/L	0.0936 ppb	17:23:05
2	Zn 213.857†	519.1	-18.7	-0.1155 µg/L	-0.1155 ppb	17:23:26
3	Sc RADIAL	149965.0	149965.0	101 %		17:22:15
3	Al 396.153Radial†	-31.6	31.7	6.5334 µg/L	6.5334 ppb	17:22:35
3	Ca 317.933Radial†	652.8	-54.4	-3.2756 µg/L	-3.2756 ppb	17:22:35
3	Fe 238.204 Radial†	143.2	0.5	0.0329 µg/L	0.0329 ppb	17:22:35
3	K 766.490 Radial†	1418.5	85.5	35.164 µg/L	35.164 ppb	17:22:15
3	Mg 279.077 IEC†	153.3	-17.6	-7.2349 µg/L	-7.2349 ppb	17:22:35
3	Na 589.592 Radial†	1488.2	260.4	39.503 µg/L	39.503 ppb	17:22:15
3	Sr 421.552†	-208.2	16.4	0.0379 µg/L	0.0379 ppb	17:22:15
3	Sc 361.383	1752421.7	1752421.7	99.849 %		17:23:28
3	Y 371.029	1062426.9	1062426.9	99.848 %		17:23:28
3	Ag 328.068†	3395.4	-46.5	-0.1971 µg/L	-0.1971 ppb	17:23:30
3	As 188.979†	-14.9	2.7	0.9525 µg/L	0.9525 ppb	17:23:50
3	B 249.677†	3249.0	23.6	0.3844 µg/L	0.3844 ppb	17:23:50
3	Ba 233.527†	-163.8	-1.9	-0.0085 µg/L	-0.0085 ppb	17:23:50
3	Be 313.107†	-691.4	93.2	0.0254 µg/L	0.0254 ppb	17:23:30
3	Cd 226.502†	-84.5	25.4	0.1744 µg/L	0.1744 ppb	17:23:50
3	Co 228.616†	-169.0	3.2	0.0435 µg/L	0.0435 ppb	17:23:50
3	Cr 267.716†	148.8	-29.5	-0.2422 µg/L	-0.2422 ppb	17:23:50
3	Cu 324.752†	2779.8	-4.9	-0.0279 µg/L	-0.0279 ppb	17:23:30
3	Mn 257.610†	176.4	1.1	0.0018 µg/L	0.0018 ppb	17:23:50
3	Mo 202.031†	-30.5	4.2	0.1327 µg/L	0.1327 ppb	17:23:50
3	Ni 231.604†	-69.8	8.0	0.1010 µg/L	0.1010 ppb	17:23:50
3	P 214.914†	30.9	26.0	6.1996 µg/L	6.1996 ppb	17:23:50
3	Pb 220.353†	101.9	5.1	0.3202 µg/L	0.3202 ppb	17:23:50
3	S 181.975 Axial†	94.9	7.3	6.0180 µg/L	6.0180 ppb	17:23:50
3	Sb 206.836†	85.1	7.1	0.9397 µg/L	0.9397 ppb	17:23:50
3	Se 196.026†	15.4	1.8	0.725 µg/L	0.725 ppb	17:23:50
3	SiO2†	1680.4	-70.2	-7.5145 µg/L	-7.5145 ppb	17:23:50
3	Si 251.611†	760.4	-187.1	-3.0316 µg/L	-3.0316 ppb	17:23:50
3	Sn 189.927†	-0.2	2.4	0.1634 µg/L	0.1634 ppb	17:23:50
3	Ti 334.940†	528.0	-356.8	-0.3534 µg/L	-0.3534 ppb	17:23:30
3	Tl 190.801†	-100.9	16.0	2.1437 µg/L	2.1437 ppb	17:23:50
3	U 409.014†	-418.3	-135.2	-8.4743 µg/L	-8.4743 ppb	17:23:30
3	V 292.402†	281.8	-27.6	-0.1515 µg/L	-0.1515 ppb	17:23:30
3	Zn 213.857†	523.6	-0.2	-0.0020 µg/L	-0.0020 ppb	17:23:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1780013.1	101.42	%	1.421				1.40%
Sc RADIAL	151096.3	102	%	0.7				0.65%
Y 371.029	1078036.7	101.32	%	1.315				1.30%
Ag 328.068†	15.3	0.0548	µg/L	1.08877	0.0548	ppb	1.08877	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.4	2.9506	µg/L	3.14602	2.9506	ppb	3.14602	106.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.1	1.0749	µg/L	0.85558	1.0749	ppb	0.85558	79.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-36.0	-0.5865	µg/L	1.03942	-0.5865	ppb	1.03942	177.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.4	0.0234	µg/L	0.05028	0.0234	ppb	0.05028	214.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	90.7	0.0257	µg/L	0.02894	0.0257	ppb	0.02894	112.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-61.3	-3.6865	µg/L	1.10699	-3.6865	ppb	1.10699	30.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.4	0.1198	µg/L	0.17957	0.1198	ppb	0.17957	149.88%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.6	-0.0221	µg/L	0.10788	-0.0221	ppb	0.10788	488.25%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -22.3     -0.1845 µg/L       0.06787     -0.1845 ppb        0.06787  36.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -54.2     -0.2325 µg/L       0.46196     -0.2325 ppb        0.46196 198.68%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         9.0      0.6038 µg/L       0.62161      0.6038 ppb        0.62161 102.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        156.3      64.338 µg/L       25.4031      64.338 ppb        25.4031  39.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.3      0.9378 µg/L       8.54036      0.9378 ppb        8.54036 910.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                7.7      0.0102 µg/L       0.01910      0.0102 ppb        0.01910 186.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.8      0.3116 µg/L       0.16283      0.3116 ppb        0.16283  52.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       231.5      35.094 µg/L        7.5987      35.094 ppb         7.5987  21.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               14.8      0.1857 µg/L       0.22414      0.1857 ppb        0.22414 120.67%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                12.6      3.0068 µg/L       3.05088      3.0068 ppb        3.05088 101.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.6     -0.1534 µg/L       0.57034     -0.1534 ppb        0.57034 371.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.5      2.0402 µg/L       3.62485      2.0402 ppb        3.62485 177.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.2      0.9502 µg/L       0.77295      0.9502 ppb        0.77295  81.34%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.0       -1.21 µg/L         5.010       -1.21 ppb          5.010 413.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -64.7     -6.9407 µg/L       0.73346     -6.9407 ppb        0.73346  10.57%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -191.3     -3.1025 µg/L       0.27874     -3.1025 ppb        0.27874   8.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.6      0.3871 µg/L       0.54288      0.3871 ppb        0.54288 140.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -7.1     -0.0163 µg/L       0.11990     -0.0163 ppb        0.11990 735.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -237.4     -0.2359 µg/L       0.14230     -0.2359 ppb        0.14230  60.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               14.2      1.9008 µg/L       0.90235      1.9008 ppb        0.90235  47.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -78.2     -4.8972 µg/L       3.31148     -4.8972 ppb        3.31148  67.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -4.7     -0.0257 µg/L       0.12269     -0.0257 ppb        0.12269 476.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -4.5     -0.0292 µg/L       0.07644     -0.0292 ppb        0.07644 261.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: 1202065055|962580|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 143
Date Collected: 3/30/2010 17:23:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065055|962580|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	150370.1	150370.1	102	%			17:24:29
1	Al 396.153Radial†	-26.5	36.9	7.6001	µg/L	7.6001	ppb	17:24:49
1	Ca 317.933Radial†	747.6	37.0	2.2239	µg/L	2.2239	ppb	17:24:49
1	Fe 238.204 Radial†	181.4	37.7	2.5338	µg/L	2.5338	ppb	17:24:49
1	K 766.490 Radial†	1375.3	39.2	16.134	µg/L	16.134	ppb	17:24:29
1	Mg 279.077 IEC†	190.9	18.9	7.7450	µg/L	7.7450	ppb	17:24:49
1	Na 589.592 Radial†	1471.0	239.5	36.351	µg/L	36.351	ppb	17:24:29
1	Sr 421.552†	-132.4	91.5	0.2110	µg/L	0.2110	ppb	17:24:29
1	Sc 361.383	1789169.7	1789169.7	101.94	%			17:25:51
1	Y 371.029	1079375.9	1079375.9	101.44	%			17:25:51
1	Ag 328.068†	3466.4	-46.8	-0.1951	µg/L	-0.1951	ppb	17:25:53
1	As 188.979†	-14.4	3.6	1.2425	µg/L	1.2425	ppb	17:26:13
1	B 249.677†	3268.2	-24.4	-0.3981	µg/L	-0.3981	ppb	17:26:13
1	Ba 233.527†	-153.6	11.5	0.0501	µg/L	0.0501	ppb	17:26:13
1	Be 313.107†	-844.0	-42.3	-0.0163	µg/L	-0.0163	ppb	17:25:53
1	Cd 226.502†	-88.6	23.1	0.1586	µg/L	0.1586	ppb	17:26:13
1	Co 228.616†	-183.2	-7.3	-0.0988	µg/L	-0.0988	ppb	17:26:13
1	Cr 267.716†	170.6	-11.2	-0.0848	µg/L	-0.0848	ppb	17:26:13
1	Cu 324.752†	2762.8	-78.8	-0.3413	µg/L	-0.3413	ppb	17:25:53
1	Mn 257.610†	303.9	122.5	0.1635	µg/L	0.1635	ppb	17:26:13
1	Mo 202.031†	-38.3	-2.8	-0.0876	µg/L	-0.0876	ppb	17:26:13
1	Ni 231.604†	-62.6	16.4	0.2068	µg/L	0.2068	ppb	17:26:13
1	P 214.914†	25.4	19.9	4.7588	µg/L	4.7588	ppb	17:26:13
1	Pb 220.353†	68.5	-29.7	-1.8115	µg/L	-1.8115	ppb	17:26:13
1	S 181.975 Axial†	100.1	10.5	8.6187	µg/L	8.6187	ppb	17:26:13
1	Sb 206.836†	95.0	15.1	1.9792	µg/L	1.9792	ppb	17:26:13
1	Se 196.026†	9.7	-4.0	-1.62	µg/L	-1.62	ppb	17:26:13
1	SiO2†	1963.1	172.6	18.464	µg/L	18.464	ppb	17:26:13
1	Si 251.611†	1487.9	510.9	8.2684	µg/L	8.2684	ppb	17:25:53
1	Sn 189.927†	0.9	3.4	0.2354	µg/L	0.2354	ppb	17:26:13
1	Ti 334.940†	889.4	-13.1	-0.0088	µg/L	-0.0088	ppb	17:25:53
1	Tl 190.801†	-111.1	8.1	1.0888	µg/L	1.0888	ppb	17:26:13
1	U 409.014†	-483.2	-190.2	-11.888	µg/L	-11.888	ppb	17:25:53
1	V 292.402†	405.1	87.6	0.4553	µg/L	0.4553	ppb	17:25:53
1	Zn 213.857†	625.6	89.1	0.5517	µg/L	0.5517	ppb	17:26:13
2	Sc RADIAL	154693.2	154693.2	105	%			17:24:51
2	Al 396.153Radial†	-65.6	0.2	0.0422	µg/L	0.0422	ppb	17:25:11
2	Ca 317.933Radial†	706.6	-22.7	-1.3676	µg/L	-1.3676	ppb	17:25:11
2	Fe 238.204 Radial†	168.4	20.2	1.3615	µg/L	1.3615	ppb	17:25:11
2	K 766.490 Radial†	1294.9	-75.3	-31.009	µg/L	-31.009	ppb	17:24:51
2	Mg 279.077 IEC†	175.1	-1.4	-0.5888	µg/L	-0.5888	ppb	17:25:11
2	Na 589.592 Radial†	1547.1	271.9	41.307	µg/L	41.307	ppb	17:24:51
2	Sr 421.552†	-241.4	-9.1	-0.0209	µg/L	-0.0209	ppb	17:24:51
2	Sc 361.383	1787521.1	1787521.1	101.85	%			17:26:15
2	Y 371.029	1078920.1	1078920.1	101.40	%			17:26:15
2	Ag 328.068†	3462.8	-47.2	-0.1893	µg/L	-0.1893	ppb	17:26:17
2	As 188.979†	-15.2	2.7	0.9488	µg/L	0.9488	ppb	17:26:37
2	B 249.677†	3241.5	-47.7	-0.7767	µg/L	-0.7767	ppb	17:26:37
2	Ba 233.527†	-173.7	-8.4	-0.0369	µg/L	-0.0369	ppb	17:26:37
2	Be 313.107†	-881.5	-79.9	-0.0238	µg/L	-0.0238	ppb	17:26:17
2	Cd 226.502†	-115.6	-3.5	-0.0239	µg/L	-0.0239	ppb	17:26:37
2	Co 228.616†	-181.4	-5.6	-0.0764	µg/L	-0.0764	ppb	17:26:37
2	Cr 267.716†	162.7	-18.8	-0.1590	µg/L	-0.1590	ppb	17:26:37
2	Cu 324.752†	2880.8	39.5	0.1673	µg/L	0.1673	ppb	17:26:17
2	Mn 257.610†	295.1	114.1	0.1526	µg/L	0.1526	ppb	17:26:37
2	Mo 202.031†	-32.2	3.1	0.0989	µg/L	0.0989	ppb	17:26:37
2	Ni 231.604†	-63.1	15.9	0.1999	µg/L	0.1999	ppb	17:26:37
2	P 214.914†	24.5	19.1	4.5506	µg/L	4.5506	ppb	17:26:37
2	Pb 220.353†	90.5	-8.1	-0.4962	µg/L	-0.4962	ppb	17:26:37

2	S 181.975 Axial†	99.9	10.4	8.5253 µg/L	8.5253 ppb		17:26:37
2	Sb 206.836†	78.2	-1.3	-0.1636 µg/L	-0.1636 ppb		17:26:37
2	Se 196.026†	3.2	-10.4	-4.18 µg/L	-4.18 ppb		17:26:37
2	SiO2†	1944.7	156.3	16.709 µg/L	16.709 ppb		17:26:37
2	Si 251.611†	1554.7	577.9	9.3498 µg/L	9.3498 ppb		17:26:17
2	Sn 189.927†	2.9	5.4	0.3714 µg/L	0.3714 ppb		17:26:37
2	Ti 334.940†	806.4	-93.8	-0.0942 µg/L	-0.0942 ppb		17:26:17
2	Tl 190.801†	-113.0	6.2	0.8284 µg/L	0.8284 ppb		17:26:37
2	U 409.014†	-277.0	11.8	0.7281 µg/L	0.7281 ppb		17:26:17
2	V 292.402†	271.8	-42.9	-0.2272 µg/L	-0.2272 ppb		17:26:17
2	Zn 213.857†	615.1	79.3	0.4905 µg/L	0.4905 ppb		17:26:37
3	Sc RADIAL	152248.5	152248.5	103 %			17:25:13
3	Al 396.153Radial†	-33.8	30.1	6.1829 µg/L	6.1829 ppb		17:25:33
3	Ca 317.933Radial†	712.3	-6.3	-0.3804 µg/L	-0.3804 ppb		17:25:33
3	Fe 238.204 Radial†	170.7	25.0	1.6843 µg/L	1.6843 ppb		17:25:33
3	K 766.490 Radial†	1486.9	131.0	53.898 µg/L	53.898 ppb		17:25:13
3	Mg 279.077 IEC†	163.1	-10.5	-4.2876 µg/L	-4.2876 ppb		17:25:33
3	Na 589.592 Radial†	1431.3	183.2	27.767 µg/L	27.767 ppb		17:25:13
3	Sr 421.552†	-197.5	29.9	0.0690 µg/L	0.0690 ppb		17:25:13
3	Sc 361.383	1798411.2	1798411.2	102.47 %			17:26:39
3	Y 371.029	1084882.4	1084882.4	101.96 %			17:26:39
3	Ag 328.068†	3244.0	-281.3	-1.1115 µg/L	-1.1115 ppb		17:26:42
3	As 188.979†	-20.1	-1.9	-0.6735 µg/L	-0.6735 ppb		17:27:02
3	B 249.677†	3241.4	-67.1	-1.0927 µg/L	-1.0927 ppb		17:27:02
3	Ba 233.527†	-164.7	1.4	0.0063 µg/L	0.0063 ppb		17:27:02
3	Be 313.107†	-632.4	168.4	0.0511 µg/L	0.0511 ppb		17:26:42
3	Cd 226.502†	-102.8	9.7	0.0662 µg/L	0.0662 ppb		17:27:02
3	Co 228.616†	-191.1	-14.1	-0.1904 µg/L	-0.1904 ppb		17:27:02
3	Cr 267.716†	168.6	-14.0	-0.1193 µg/L	-0.1193 ppb		17:27:02
3	Cu 324.752†	2872.8	14.7	0.0634 µg/L	0.0634 ppb		17:26:42
3	Mn 257.610†	273.3	91.1	0.1219 µg/L	0.1219 ppb		17:27:02
3	Mo 202.031†	-27.1	8.3	0.2638 µg/L	0.2638 ppb		17:27:02
3	Ni 231.604†	-66.9	12.6	0.1585 µg/L	0.1585 ppb		17:27:02
3	P 214.914†	23.2	17.6	4.2055 µg/L	4.2055 ppb		17:27:02
3	Pb 220.353†	88.4	-10.7	-0.6539 µg/L	-0.6539 ppb		17:27:02
3	S 181.975 Axial†	90.0	0.2	0.1289 µg/L	0.1289 ppb		17:27:02
3	Sb 206.836†	81.0	1.0	0.1356 µg/L	0.1356 ppb		17:27:02
3	Se 196.026†	7.1	-6.6	-2.65 µg/L	-2.65 ppb		17:27:02
3	SiO2†	1967.1	166.5	17.797 µg/L	17.797 ppb		17:27:02
3	Si 251.611†	1595.7	608.6	9.8420 µg/L	9.8420 ppb		17:26:42
3	Sn 189.927†	9.6	11.9	0.8217 µg/L	0.8217 ppb		17:27:02
3	Ti 334.940†	1030.3	119.9	0.1198 µg/L	0.1198 ppb		17:26:42
3	Tl 190.801†	-126.0	-5.8	-0.7806 µg/L	-0.7806 ppb		17:27:02
3	U 409.014†	-260.2	29.8	1.8904 µg/L	1.8904 ppb		17:26:42
3	V 292.402†	387.1	68.0	0.3641 µg/L	0.3641 ppb		17:26:42
3	Zn 213.857†	642.2	102.2	0.6326 µg/L	0.6326 ppb		17:27:02

Mean Data: 1202065055|962580|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1791700.7	102.09	%	0.334				0.33%
Sc RADIAL	152437.2	103	%	1.5				1.42%
Y 371.029	1081059.4	101.60	%	0.312				0.31%
Ag 328.068†	-125.1	-0.4986	µg/L	0.53080	-0.4986	ppb	0.53080	106.45%
Al 396.153Radial†	22.4	4.6084	µg/L	4.01744	4.6084	ppb	4.01744	87.18%
As 188.979†	1.5	0.5060	µg/L	1.03191	0.5060	ppb	1.03191	203.95%
B 249.677†	-46.4	-0.7559	µg/L	0.34777	-0.7559	ppb	0.34777	46.01%
Ba 233.527†	1.5	0.0065	µg/L	0.04348	0.0065	ppb	0.04348	668.79%
Be 313.107†	15.4	0.0037	µg/L	0.04123	0.0037	ppb	0.04123	>999.9%
Ca 317.933Radial†	2.6	0.1586	µg/L	1.85546	0.1586	ppb	1.85546	>999.9%
Cd 226.502†	9.8	0.0670	µg/L	0.09125	0.0670	ppb	0.09125	136.27%
Co 228.616†	-9.0	-0.1219	µg/L	0.06038	-0.1219	ppb	0.06038	49.55%
Cr 267.716†	-14.7	-0.1210	µg/L	0.03711	-0.1210	ppb	0.03711	30.66%
Cu 324.752†	-8.2	-0.0369	µg/L	0.26875	-0.0369	ppb	0.26875	728.86%
Fe 238.204 Radial†	27.6	1.8599	µg/L	0.60557	1.8599	ppb	0.60557	32.56%
K 766.490 Radial†	31.6	13.008	µg/L	42.5402	13.008	ppb	42.5402	327.04%
Mg 279.077 IEC†	2.3	0.9562	µg/L	6.16329	0.9562	ppb	6.16329	644.55%
Mn 257.610†	109.3	0.1460	µg/L	0.02153	0.1460	ppb	0.02153	14.75%
Mo 202.031†	2.9	0.0917	µg/L	0.17585	0.0917	ppb	0.17585	191.76%
Na 589.592 Radial†	231.5	35.142	µg/L	6.8506	35.142	ppb	6.8506	19.49%

Ni 231.604†	15.0	0.1884	µg/L	0.02613	0.1884	ppb	0.02613 13.87%
P 214.914†	18.9	4.5050	µg/L	0.27943	4.5050	ppb	0.27943 6.20%
Pb 220.353†	-16.2	-0.9872	µg/L	0.71818	-0.9872	ppb	0.71818 72.75%
S 181.975 Axial†	7.0	5.7577	µg/L	4.87483	5.7577	ppb	4.87483 84.67%
Sb 206.836†	4.9	0.6504	µg/L	1.16044	0.6504	ppb	1.16044 178.42%
Se 196.026†	-7.0	-2.82	µg/L	1.288	-2.82	ppb	1.288 45.72%
SiO2†	165.1	17.657	µg/L	0.8862	17.657	ppb	0.8862 5.02%
Si 251.611†	565.8	9.1534	µg/L	0.80500	9.1534	ppb	0.80500 8.79%
Sn 189.927†	6.9	0.4762	µg/L	0.30688	0.4762	ppb	0.30688 64.45%
Sr 421.552†	37.4	0.0864	µg/L	0.11693	0.0864	ppb	0.11693 135.39%
Ti 334.940†	4.3	0.0056	µg/L	0.10772	0.0056	ppb	0.10772 >999.9%
Tl 190.801†	2.8	0.3789	µg/L	1.01257	0.3789	ppb	1.01257 267.26%
U 409.014†	-49.5	-3.0898	µg/L	7.64147	-3.0898	ppb	7.64147 247.32%
V 292.402†	37.5	0.1974	µg/L	0.37053	0.1974	ppb	0.37053 187.69%
Zn 213.857†	90.2	0.5583	µg/L	0.07129	0.5583	ppb	0.07129 12.77%

Sequence No.: 12
Sample ID: 1202065056|962580|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 144
Date Collected: 3/30/2010 17:27:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065056|962580|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152492.7	152492.7	103	%			17:27:41
1	Al 396.153Radial†	25958.7	25227.9	5175.7	µg/L	5175.7	ppb	17:27:41
1	Ca 317.933Radial†	89451.6	86018.4	5175.5	µg/L	5175.5	ppb	17:27:41
1	Fe 238.204 Radial†	78319.8	75784.3	5099.4	µg/L	5099.4	ppb	17:27:41
1	K 766.490 Radial†	14436.7	12682.4	5216.2	µg/L	5216.2	ppb	17:27:41
1	Mg 279.077 IEC†	13513.4	12931.4	5312.4	µg/L	5312.4	ppb	17:27:41
1	Na 589.592 Radial†	36052.1	33743.0	5119.1	µg/L	5119.1	ppb	17:27:41
1	Sr 421.552†	230373.9	223551.3	515.66	µg/L	515.66	ppb	17:27:39
1	Sc 361.383	1799897.1	1799897.1	102.55	%			17:28:08
1	Y 371.029	1076262.5	1076262.5	101.15	%			17:28:08
1	Ag 328.068†	130657.7	123957.1	499.12	µg/L	499.12	ppb	17:28:08
1	As 188.979†	1457.3	1438.7	509.33	µg/L	509.33	ppb	17:28:28
1	B 249.677†	35003.2	30901.2	502.06	µg/L	502.06	ppb	17:28:08
1	Ba 233.527†	121321.0	118462.1	516.21	µg/L	516.21	ppb	17:28:08
1	Be 313.107†	1741849.8	1699261.1	510.11	µg/L	510.11	ppb	17:28:08
1	Cd 226.502†	75780.7	74003.7	507.82	µg/L	507.82	ppb	17:28:08
1	Co 228.616†	38302.2	37520.8	507.74	µg/L	507.74	ppb	17:28:08
1	Cr 267.716†	61793.3	60076.0	506.04	µg/L	506.04	ppb	17:28:08
1	Cu 324.752†	127129.6	121175.0	512.20	µg/L	512.20	ppb	17:28:08
1	Mn 257.610†	390573.3	380672.0	508.59	µg/L	508.59	ppb	17:28:08
1	Mo 202.031†	15963.6	15600.9	496.72	µg/L	496.72	ppb	17:28:28
1	Ni 231.604†	41842.2	40878.2	514.15	µg/L	514.15	ppb	17:28:08
1	P 214.914†	2227.2	2166.7	508.11	µg/L	508.11	ppb	17:28:28
1	Pb 220.353†	8589.0	8278.2	508.44	µg/L	508.44	ppb	17:28:28
1	S 181.975 Axial†	6428.6	6180.8	5070.8	µg/L	5070.8	ppb	17:28:28
1	Sb 206.836†	3999.1	3821.4	502.08	µg/L	502.08	ppb	17:28:28
1	Se 196.026†	1266.7	1221.6	491	µg/L	491	ppb	17:28:28
1	SiO2†	104216.9	99868.6	10663	µg/L	10663	ppb	17:28:08
1	Si 251.611†	317896.5	309031.8	4992.1	µg/L	4992.1	ppb	17:28:08
1	Sn 189.927†	7461.7	7278.4	505.60	µg/L	505.60	ppb	17:28:28
1	Ti 334.940†	518483.9	504687.4	504.94	µg/L	504.94	ppb	17:28:08
1	Tl 190.801†	3731.7	3755.8	512.37	µg/L	512.37	ppb	17:28:28
1	U 409.014†	7849.9	7938.2	528.18	µg/L	528.18	ppb	17:28:08
1	V 292.402†	98311.1	95553.2	513.96	µg/L	513.96	ppb	17:28:08
1	Zn 213.857†	83554.9	80949.7	498.02	µg/L	498.02	ppb	17:28:08
2	Sc RADIAL	152401.9	152401.9	103	%			17:27:45
2	Al 396.153Radial†	25799.1	25088.0	5146.5	µg/L	5146.5	ppb	17:27:45
2	Ca 317.933Radial†	89177.9	85804.6	5162.7	µg/L	5162.7	ppb	17:27:45
2	Fe 238.204 Radial†	77937.7	75458.9	5077.5	µg/L	5077.5	ppb	17:27:45
2	K 766.490 Radial†	14239.3	12499.3	5140.9	µg/L	5140.9	ppb	17:27:45
2	Mg 279.077 IEC†	13421.3	12849.9	5279.3	µg/L	5279.3	ppb	17:27:45
2	Na 589.592 Radial†	36333.1	34036.4	5163.8	µg/L	5163.8	ppb	17:27:45
2	Sr 421.552†	231747.7	225016.8	519.04	µg/L	519.04	ppb	17:27:43
2	Sc 361.383	1778801.4	1778801.4	101.35	%			17:28:31
2	Y 371.029	1064216.7	1064216.7	100.02	%			17:28:31
2	Ag 328.068†	128927.1	123760.5	498.30	µg/L	498.30	ppb	17:28:31
2	As 188.979†	1462.1	1460.3	516.89	µg/L	516.89	ppb	17:28:51
2	B 249.677†	34650.0	30957.5	502.98	µg/L	502.98	ppb	17:28:31
2	Ba 233.527†	119812.2	118376.4	515.84	µg/L	515.84	ppb	17:28:31
2	Be 313.107†	1715324.1	1693232.2	508.30	µg/L	508.30	ppb	17:28:31
2	Cd 226.502†	74641.2	73755.7	506.12	µg/L	506.12	ppb	17:28:31
2	Co 228.616†	37713.8	37383.3	505.88	µg/L	505.88	ppb	17:28:31
2	Cr 267.716†	60954.8	59963.3	505.10	µg/L	505.10	ppb	17:28:31
2	Cu 324.752†	125223.8	120764.7	510.46	µg/L	510.46	ppb	17:28:31
2	Mn 257.610†	384953.6	379643.9	507.22	µg/L	507.22	ppb	17:28:31
2	Mo 202.031†	16058.7	15879.3	505.57	µg/L	505.57	ppb	17:28:51
2	Ni 231.604†	41289.2	40816.4	513.38	µg/L	513.38	ppb	17:28:31
2	P 214.914†	2236.9	2202.0	516.56	µg/L	516.56	ppb	17:28:51
2	Pb 220.353†	8634.4	8422.3	517.29	µg/L	517.29	ppb	17:28:51

2	S 181.975 Axial†	6472.3	6298.3	5167.2	µg/L	5167.2 ppb	17:28:51
2	Sb 206.836†	4010.1	3878.5	509.73	µg/L	509.73 ppb	17:28:51
2	Se 196.026†	1281.1	1250.4	503	µg/L	503 ppb	17:28:51
2	SiO2†	102728.8	99605.5	10634	µg/L	10634 ppb	17:28:31
2	Si 251.611†	313381.5	308253.3	4979.3	µg/L	4979.3 ppb	17:28:31
2	Sn 189.927†	7519.7	7422.0	515.53	µg/L	515.53 ppb	17:28:51
2	Ti 334.940†	511003.0	503302.1	503.56	µg/L	503.56 ppb	17:28:31
2	Tl 190.801†	3757.8	3824.7	521.61	µg/L	521.61 ppb	17:28:51
2	U 409.014†	7621.9	7804.0	519.63	µg/L	519.63 ppb	17:28:31
2	V 292.402†	96700.1	95100.5	511.64	µg/L	511.64 ppb	17:28:31
2	Zn 213.857†	82179.1	80558.5	495.60	µg/L	495.60 ppb	17:28:31
3	Sc RADIAL	153475.3	153475.3	104	%		17:27:49
3	Al 396.153Radial†	26195.9	25295.2	5189.3	µg/L	5189.3 ppb	17:27:49
3	Ca 317.933Radial†	89933.6	85927.5	5170.0	µg/L	5170.0 ppb	17:27:49
3	Fe 238.204 Radial†	78845.5	75804.5	5100.8	µg/L	5100.8 ppb	17:27:49
3	K 766.490 Radial†	14394.9	12552.5	5162.8	µg/L	5162.8 ppb	17:27:49
3	Mg 279.077 IEC†	13483.3	12818.6	5266.3	µg/L	5266.3 ppb	17:27:49
3	Na 589.592 Radial†	36479.7	33931.2	5147.8	µg/L	5147.8 ppb	17:27:49
3	Sr 421.552†	233674.2	225300.3	519.69	µg/L	519.69 ppb	17:27:47
3	Sc 361.383	1787411.7	1787411.7	101.84	%		17:28:54
3	Y 371.029	1068271.6	1068271.6	100.40	%		17:28:54
3	Ag 328.068†	129184.5	123400.4	496.88	µg/L	496.88 ppb	17:28:54
3	As 188.979†	1477.9	1468.8	519.84	µg/L	519.84 ppb	17:29:14
3	B 249.677†	34594.6	30738.4	499.42	µg/L	499.42 ppb	17:28:54
3	Ba 233.527†	120425.0	118408.7	515.98	µg/L	515.98 ppb	17:28:54
3	Be 313.107†	1721702.1	1691342.0	507.74	µg/L	507.74 ppb	17:28:54
3	Cd 226.502†	74968.4	73722.3	505.88	µg/L	505.88 ppb	17:28:54
3	Co 228.616†	37706.2	37196.6	503.36	µg/L	503.36 ppb	17:28:54
3	Cr 267.716†	61176.3	59891.0	504.48	µg/L	504.48 ppb	17:28:54
3	Cu 324.752†	125890.8	120824.5	510.73	µg/L	510.73 ppb	17:28:54
3	Mn 257.610†	386313.8	379149.8	506.56	µg/L	506.56 ppb	17:28:54
3	Mo 202.031†	16051.3	15795.6	502.91	µg/L	502.91 ppb	17:29:14
3	Ni 231.604†	41298.3	40629.1	511.02	µg/L	511.02 ppb	17:28:54
3	P 214.914†	2204.9	2160.0	506.53	µg/L	506.53 ppb	17:29:14
3	Pb 220.353†	8648.2	8394.7	515.59	µg/L	515.59 ppb	17:29:14
3	S 181.975 Axial†	6496.6	6291.4	5161.5	µg/L	5161.5 ppb	17:29:14
3	Sb 206.836†	4022.2	3871.3	508.75	µg/L	508.75 ppb	17:29:14
3	Se 196.026†	1268.7	1232.2	495	µg/L	495 ppb	17:29:14
3	SiO2†	103208.0	99587.8	10633	µg/L	10633 ppb	17:28:54
3	Si 251.611†	314525.4	307887.0	4973.5	µg/L	4973.5 ppb	17:28:54
3	Sn 189.927†	7505.5	7372.3	512.09	µg/L	512.09 ppb	17:29:14
3	Ti 334.940†	512871.0	502707.5	502.96	µg/L	502.96 ppb	17:28:54
3	Tl 190.801†	3767.7	3816.6	520.52	µg/L	520.52 ppb	17:29:14
3	U 409.014†	7892.8	8033.8	534.01	µg/L	534.01 ppb	17:28:54
3	V 292.402†	97125.4	95058.5	511.39	µg/L	511.39 ppb	17:28:54
3	Zn 213.857†	82846.5	80823.3	497.26	µg/L	497.26 ppb	17:28:54

Mean Data: 1202065056|962580|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1788703.4	101.92	%	0.604				0.59%
Sc RADIAL	152790.0	103	%	0.4				0.39%
Y 371.029	1069583.6	100.52	%	0.576				0.57%
Ag 328.068†	123706.0	498.10	µg/L	1.131	498.10	ppb	1.131	0.23%
Al 396.153Radial†	25203.7	5170.5	µg/L	21.88	5170.5	ppb	21.88	0.42%
As 188.979†	1455.9	515.35	µg/L	5.420	515.35	ppb	5.420	1.05%
B 249.677†	30865.7	501.49	µg/L	1.849	501.49	ppb	1.849	0.37%
Ba 233.527†	118415.7	516.01	µg/L	0.188	516.01	ppb	0.188	0.04%
Be 313.107†	1694611.8	508.72	µg/L	1.241	508.72	ppb	1.241	0.24%
Ca 317.933Radial†	85916.8	5169.4	µg/L	6.46	5169.4	ppb	6.46	0.12%
Cd 226.502†	73827.2	506.60	µg/L	1.056	506.60	ppb	1.056	0.21%
Co 228.616†	37366.9	505.66	µg/L	2.201	505.66	ppb	2.201	0.44%
Cr 267.716†	59976.8	505.21	µg/L	0.787	505.21	ppb	0.787	0.16%
Cu 324.752†	120921.4	511.13	µg/L	0.938	511.13	ppb	0.938	0.18%
Fe 238.204 Radial†	75682.6	5092.6	µg/L	13.05	5092.6	ppb	13.05	0.26%
K 766.490 Radial†	12578.1	5173.3	µg/L	38.77	5173.3	ppb	38.77	0.75%
Mg 279.077 IEC†	12866.6	5286.0	µg/L	23.79	5286.0	ppb	23.79	0.45%
Mn 257.610†	379821.9	507.45	µg/L	1.037	507.45	ppb	1.037	0.20%
Mo 202.031†	15758.6	501.73	µg/L	4.544	501.73	ppb	4.544	0.91%
Na 589.592 Radial†	33903.6	5143.6	µg/L	22.61	5143.6	ppb	22.61	0.44%

Ni 231.604†	40774.6	512.85 µg/L	1.632	512.85 ppb	1.632	0.32%
P 214.914†	2176.3	510.40 µg/L	5.392	510.40 ppb	5.392	1.06%
Pb 220.353†	8365.1	513.77 µg/L	4.696	513.77 ppb	4.696	0.91%
S 181.975 Axial†	6256.8	5133.2 µg/L	54.07	5133.2 ppb	54.07	1.05%
Sb 206.836†	3857.1	506.85 µg/L	4.159	506.85 ppb	4.159	0.82%
Se 196.026†	1234.7	496 µg/L	5.8	496 ppb	5.8	1.17%
SiO2†	99687.3	10643 µg/L	17.0	10643 ppb	17.0	0.16%
Si 251.611†	308390.7	4981.6 µg/L	9.54	4981.6 ppb	9.54	0.19%
Sn 189.927†	7357.5	511.07 µg/L	5.044	511.07 ppb	5.044	0.99%
Sr 421.552†	224622.8	518.13 µg/L	2.166	518.13 ppb	2.166	0.42%
Ti 334.940†	503565.7	503.82 µg/L	1.016	503.82 ppb	1.016	0.20%
Tl 190.801†	3799.1	518.17 µg/L	5.047	518.17 ppb	5.047	0.97%
U 409.014†	7925.3	527.27 µg/L	7.229	527.27 ppb	7.229	1.37%
V 292.402†	95237.4	512.33 µg/L	1.414	512.33 ppb	1.414	0.28%
Zn 213.857†	80777.2	496.96 µg/L	1.236	496.96 ppb	1.236	0.25%

Sequence No.: 14
Sample ID: 1202065057|962580|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 146
Date Collected: 3/30/2010 17:32:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065057|962580|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	157020.9	157020.9	106	%			17:32:50
1	Al 396.153Radial†	-37.2	27.9	5.7633	µg/L	5.7633	ppb	17:33:10
1	Ca 317.933Radial†	1340.1	563.6	33.913	µg/L	33.913	ppb	17:33:10
1	Fe 238.204 Radial†	243.0	88.1	5.9285	µg/L	5.9285	ppb	17:33:10
1	K 766.490 Radial†	2566.9	1103.8	454.25	µg/L	454.25	ppb	17:32:50
1	Mg 279.077 IEC†	192.3	12.3	5.0273	µg/L	5.0273	ppb	17:33:10
1	Na 589.592 Radial†	3123.0	1733.6	262.83	µg/L	262.83	ppb	17:32:50
1	Sr 421.552†	-116.9	111.6	0.2571	µg/L	0.2571	ppb	17:32:50
1	Sc 361.383	1809583.9	1809583.9	103.11	%			17:33:58
1	Y 371.029	1089975.5	1089975.5	102.44	%			17:33:58
1	Ag 328.068†	3350.4	-197.6	-0.7895	µg/L	-0.7895	ppb	17:34:00
1	As 188.979†	-16.3	1.9	0.6503	µg/L	0.6503	ppb	17:34:20
1	B 249.677†	4673.0	1301.9	21.226	µg/L	21.226	ppb	17:34:00
1	Ba 233.527†	-111.0	54.5	0.2370	µg/L	0.2370	ppb	17:34:20
1	Be 313.107†	-826.9	-16.4	-0.0052	µg/L	-0.0052	ppb	17:34:00
1	Cd 226.502†	-110.8	2.6	0.0171	µg/L	0.0171	ppb	17:34:20
1	Co 228.616†	-169.8	7.7	0.1041	µg/L	0.1041	ppb	17:34:20
1	Cr 267.716†	191.8	7.5	0.0636	µg/L	0.0636	ppb	17:34:20
1	Cu 324.752†	3186.0	301.0	1.2687	µg/L	1.2687	ppb	17:34:00
1	Mn 257.610†	711.9	514.9	0.6880	µg/L	0.6880	ppb	17:34:20
1	Mo 202.031†	-46.4	-10.3	-0.3259	µg/L	-0.3259	ppb	17:34:20
1	Ni 231.604†	-52.4	27.1	0.3410	µg/L	0.3410	ppb	17:34:20
1	P 214.914†	20.6	15.0	3.5650	µg/L	3.5650	ppb	17:34:20
1	Pb 220.353†	89.4	-10.2	-0.6277	µg/L	-0.6277	ppb	17:34:20
1	S 181.975 Axial†	135.7	43.9	35.988	µg/L	35.988	ppb	17:34:20
1	Sb 206.836†	67.5	-12.6	-1.6517	µg/L	-1.6517	ppb	17:34:20
1	Se 196.026†	17.1	3.0	1.20	µg/L	1.20	ppb	17:34:20
1	SiO2†	34746.8	31947.1	3417.9	µg/L	3417.9	ppb	17:34:00
1	Si 251.611†	102848.5	98801.9	1599.2	µg/L	1599.2	ppb	17:34:00
1	Sn 189.927†	10.7	12.9	0.8942	µg/L	0.8942	ppb	17:34:20
1	Ti 334.940†	959.7	45.2	0.0461	µg/L	0.0461	ppb	17:34:00
1	Tl 190.801†	-114.6	6.0	0.8033	µg/L	0.8033	ppb	17:34:20
1	U 409.014†	-309.4	-16.3	-1.0273	µg/L	-1.0273	ppb	17:34:00
1	V 292.402†	291.8	-26.8	-0.1468	µg/L	-0.1468	ppb	17:34:00
1	Zn 213.857†	766.8	219.1	1.3550	µg/L	1.3550	ppb	17:34:20
2	Sc RADIAL	155922.2	155922.2	105	%			17:33:12
2	Al 396.153Radial†	-20.7	43.3	8.9173	µg/L	8.9173	ppb	17:33:32
2	Ca 317.933Radial†	1372.3	603.1	36.284	µg/L	36.284	ppb	17:33:32
2	Fe 238.204 Radial†	255.4	101.4	6.8247	µg/L	6.8247	ppb	17:33:32
2	K 766.490 Radial†	2603.7	1155.7	475.60	µg/L	475.60	ppb	17:33:12
2	Mg 279.077 IEC†	214.4	34.5	14.159	µg/L	14.159	ppb	17:33:32
2	Na 589.592 Radial†	3040.1	1675.7	254.03	µg/L	254.03	ppb	17:33:12
2	Sr 421.552†	-58.1	166.5	0.3839	µg/L	0.3839	ppb	17:33:12
2	Sc 361.383	1814240.2	1814240.2	103.37	%			17:34:22
2	Y 371.029	1093172.0	1093172.0	102.74	%			17:34:22
2	Ag 328.068†	3595.6	31.2	0.1124	µg/L	0.1124	ppb	17:34:24
2	As 188.979†	-15.9	2.3	0.8136	µg/L	0.8136	ppb	17:34:45
2	B 249.677†	4440.7	1065.6	17.373	µg/L	17.373	ppb	17:34:24
2	Ba 233.527†	-131.6	34.8	0.1515	µg/L	0.1515	ppb	17:34:45
2	Be 313.107†	-729.8	79.6	0.0215	µg/L	0.0215	ppb	17:34:24
2	Cd 226.502†	-101.7	11.7	0.0795	µg/L	0.0795	ppb	17:34:45
2	Co 228.616†	-165.1	12.8	0.1723	µg/L	0.1723	ppb	17:34:45
2	Cr 267.716†	196.9	11.9	0.1065	µg/L	0.1065	ppb	17:34:45
2	Cu 324.752†	3085.1	195.6	0.8189	µg/L	0.8189	ppb	17:34:24
2	Mn 257.610†	661.7	464.5	0.6203	µg/L	0.6203	ppb	17:34:45
2	Mo 202.031†	-35.6	0.3	0.0115	µg/L	0.0115	ppb	17:34:45
2	Ni 231.604†	-57.8	22.0	0.2768	µg/L	0.2768	ppb	17:34:45
2	P 214.914†	3.9	-1.2	-0.2895	µg/L	-0.2895	ppb	17:34:45
2	Pb 220.353†	115.3	14.6	0.8990	µg/L	0.8990	ppb	17:34:45

2	S 181.975 Axial†	145.2	52.8	43.252 µg/L	43.252 ppb	17:34:45
2	Sb 206.836†	93.9	12.8	1.6733 µg/L	1.6733 ppb	17:34:45
2	Se 196.026†	17.6	3.5	1.38 µg/L	1.38 ppb	17:34:45
2	SiO2†	34626.1	31743.8	3396.1 µg/L	3396.1 ppb	17:34:24
2	Si 251.611†	102523.8	98231.8	1590.0 µg/L	1590.0 ppb	17:34:24
2	Sn 189.927†	11.4	13.6	0.9435 µg/L	0.9435 ppb	17:34:45
2	Ti 334.940†	1245.9	319.6	0.3233 µg/L	0.3233 ppb	17:34:24
2	Tl 190.801†	-127.9	-6.6	-0.8889 µg/L	-0.8889 ppb	17:34:45
2	U 409.014†	-426.6	-129.0	-8.0774 µg/L	-8.0774 ppb	17:34:24
2	V 292.402†	307.7	-12.2	-0.0705 µg/L	-0.0705 ppb	17:34:24
2	Zn 213.857†	754.5	205.3	1.2702 µg/L	1.2702 ppb	17:34:45
3	Sc RADIAL	155838.3	155838.3	105 %		17:33:34
3	Al 396.153Radial†	-31.5	33.0	6.7894 µg/L	6.7894 ppb	17:33:54
3	Ca 317.933Radial†	1353.1	585.6	35.234 µg/L	35.234 ppb	17:33:54
3	Fe 238.204 Radial†	246.6	93.2	6.2725 µg/L	6.2725 ppb	17:33:54
3	K 766.490 Radial†	2396.7	960.7	395.33 µg/L	395.33 ppb	17:33:34
3	Mg 279.077 IEC†	221.1	41.0	16.809 µg/L	16.809 ppb	17:33:54
3	Na 589.592 Radial†	3045.3	1682.2	255.08 µg/L	255.08 ppb	17:33:34
3	Sr 421.552†	-146.3	82.8	0.1908 µg/L	0.1908 ppb	17:33:34
3	Sc 361.383	1887679.6	1887679.6	107.56 %		17:34:47
3	Y 371.029	1135263.7	1135263.7	106.69 %		17:34:47
3	Ag 328.068†	3889.6	169.3	0.6573 µg/L	0.6573 ppb	17:34:49
3	As 188.979†	-7.9	10.4	3.6108 µg/L	3.6108 ppb	17:35:09
3	B 249.677†	4619.4	1064.6	17.357 µg/L	17.357 ppb	17:34:49
3	Ba 233.527†	-126.7	44.4	0.1931 µg/L	0.1931 ppb	17:35:09
3	Be 313.107†	-704.2	130.8	0.0362 µg/L	0.0362 ppb	17:34:49
3	Cd 226.502†	-96.5	20.3	0.1388 µg/L	0.1388 ppb	17:35:09
3	Co 228.616†	-183.6	1.7	0.0226 µg/L	0.0226 ppb	17:35:09
3	Cr 267.716†	158.7	-31.0	-0.2533 µg/L	-0.2533 ppb	17:35:09
3	Cu 324.752†	3312.8	291.1	1.2198 µg/L	1.2198 ppb	17:34:49
3	Mn 257.610†	655.9	434.2	0.5797 µg/L	0.5797 ppb	17:35:09
3	Mo 202.031†	-32.6	4.5	0.1433 µg/L	0.1433 ppb	17:35:09
3	Ni 231.604†	-59.2	22.9	0.2879 µg/L	0.2879 ppb	17:35:09
3	P 214.914†	23.5	16.8	4.0064 µg/L	4.0064 ppb	17:35:09
3	Pb 220.353†	118.2	12.9	0.8001 µg/L	0.8001 ppb	17:35:09
3	S 181.975 Axial†	139.6	42.1	34.545 µg/L	34.545 ppb	17:35:09
3	Sb 206.836†	76.5	-6.9	-0.9037 µg/L	-0.9037 ppb	17:35:09
3	Se 196.026†	6.4	-7.6	-3.05 µg/L	-3.05 ppb	17:35:09
3	SiO2†	34626.6	30441.0	3256.7 µg/L	3256.7 ppb	17:34:49
3	Si 251.611†	102049.9	93932.6	1520.4 µg/L	1520.4 ppb	17:34:49
3	Sn 189.927†	9.2	11.1	0.7651 µg/L	0.7651 ppb	17:35:09
3	Ti 334.940†	973.1	19.1	0.0229 µg/L	0.0229 ppb	17:34:49
3	Tl 190.801†	-114.1	11.0	1.4816 µg/L	1.4816 ppb	17:35:09
3	U 409.014†	-478.7	-161.3	-10.108 µg/L	-10.108 ppb	17:34:49
3	V 292.402†	300.5	-30.4	-0.1687 µg/L	-0.1687 ppb	17:34:49
3	Zn 213.857†	785.3	205.6	1.2715 µg/L	1.2715 ppb	17:35:09

Mean Data: 1202065057|962580|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1837167.9	104.68	%	2.496				2.38%
Sc RADIAL	156260.5	106	%	0.4				0.42%
Y 371.029	1106137.1	103.96	%	2.375				2.28%
Ag 328.068†	1.0	-0.0066	µg/L	0.73072	-0.0066	ppb	0.73072	>999.9%
Al 396.153Radial†	34.7	7.1567	µg/L	1.60873	7.1567	ppb	1.60873	22.48%
As 188.979†	4.8	1.6916	µg/L	1.66412	1.6916	ppb	1.66412	98.38%
B 249.677†	1144.0	18.652	µg/L	2.2294	18.652	ppb	2.2294	11.95%
Ba 233.527†	44.6	0.1939	µg/L	0.04272	0.1939	ppb	0.04272	22.03%
Be 313.107†	64.7	0.0175	µg/L	0.02100	0.0175	ppb	0.02100	120.17%
Ca 317.933Radial†	584.1	35.144	µg/L	1.1881	35.144	ppb	1.1881	3.38%
Cd 226.502†	11.5	0.0785	µg/L	0.06088	0.0785	ppb	0.06088	77.60%
Co 228.616†	7.4	0.0997	µg/L	0.07492	0.0997	ppb	0.07492	75.17%
Cr 267.716†	-3.9	-0.0277	µg/L	0.19649	-0.0277	ppb	0.19649	708.93%
Cu 324.752†	262.6	1.1025	µg/L	0.24681	1.1025	ppb	0.24681	22.39%
Fe 238.204 Radial†	94.2	6.3419	µg/L	0.45212	6.3419	ppb	0.45212	7.13%
K 766.490 Radial†	1073.4	441.73	µg/L	41.573	441.73	ppb	41.573	9.41%
Mg 279.077 IEC†	29.3	11.999	µg/L	6.1811	11.999	ppb	6.1811	51.52%
Mn 257.610†	471.2	0.6293	µg/L	0.05470	0.6293	ppb	0.05470	8.69%
Mo 202.031†	-1.8	-0.0571	µg/L	0.24200	-0.0571	ppb	0.24200	424.16%
Na 589.592 Radial†	1697.2	257.32	µg/L	4.809	257.32	ppb	4.809	1.87%

Ni 231.604†	24.0	0.3019	µg/L	0.03431	0.3019	ppb	0.03431 11.36%
P 214.914†	10.2	2.4273	µg/L	2.36311	2.4273	ppb	2.36311 97.36%
Pb 220.353†	5.8	0.3571	µg/L	0.85430	0.3571	ppb	0.85430 239.22%
S 181.975 Axial†	46.3	37.928	µg/L	4.6665	37.928	ppb	4.6665 12.30%
Sb 206.836†	-2.2	-0.2941	µg/L	1.74434	-0.2941	ppb	1.74434 593.21%
Se 196.026†	-0.4	-0.155	µg/L	2.5103	-0.155	ppb	2.5103 >999.9%
SiO2†	31377.3	3356.9	µg/L	87.43	3356.9	ppb	87.43 2.60%
Si 251.611†	96988.8	1569.9	µg/L	43.09	1569.9	ppb	43.09 2.74%
Sn 189.927†	12.5	0.8676	µg/L	0.09212	0.8676	ppb	0.09212 10.62%
Sr 421.552†	120.3	0.2773	µg/L	0.09811	0.2773	ppb	0.09811 35.39%
Ti 334.940†	128.0	0.1308	µg/L	0.16712	0.1308	ppb	0.16712 127.77%
Tl 190.801†	3.5	0.4653	µg/L	1.22086	0.4653	ppb	1.22086 262.37%
U 409.014†	-102.2	-6.4044	µg/L	4.76609	-6.4044	ppb	4.76609 74.42%
V 292.402†	-23.1	-0.1287	µg/L	0.05158	-0.1287	ppb	0.05158 40.09%
Zn 213.857†	210.0	1.2989	µg/L	0.04859	1.2989	ppb	0.04859 3.74%

Sequence No.: 15
Sample ID: 1202065058|962580|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 147
Date Collected: 3/30/2010 17:35:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065058|962580|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153516.2	153516.2	104	%			17:35:48
1	Al 396.153Radial†	26350.2	25437.0	5218.4	µg/L	5218.4	ppb	17:35:48
1	Ca 317.933Radial†	91436.7	87351.8	5255.7	µg/L	5255.7	ppb	17:35:48
1	Fe 238.204 Radial†	79920.4	76819.3	5169.1	µg/L	5169.1	ppb	17:35:48
1	K 766.490 Radial†	15385.8	13503.1	5553.9	µg/L	5553.9	ppb	17:35:48
1	Mg 279.077 IEC†	13651.7	12977.3	5331.4	µg/L	5331.4	ppb	17:35:48
1	Na 589.592 Radial†	38292.0	35667.0	5411.0	µg/L	5411.0	ppb	17:35:48
1	Sr 421.552†	234562.9	226096.1	521.53	µg/L	521.53	ppb	17:35:46
1	Sc 361.383	1778676.9	1778676.9	101.34	%			17:36:01
1	Y 371.029	1062140.6	1062140.6	99.821	%			17:36:01
1	Ag 328.068†	129764.8	124596.0	501.66	µg/L	501.66	ppb	17:36:01
1	As 188.979†	1461.3	1459.6	516.65	µg/L	516.65	ppb	17:36:21
1	B 249.677†	35854.1	32148.0	522.39	µg/L	522.39	ppb	17:36:01
1	Ba 233.527†	120198.0	118765.3	517.54	µg/L	517.54	ppb	17:36:01
1	Be 313.107†	1719600.8	1697570.6	509.60	µg/L	509.60	ppb	17:36:01
1	Cd 226.502†	75106.8	74220.3	509.30	µg/L	509.30	ppb	17:36:01
1	Co 228.616†	37857.2	37527.3	507.83	µg/L	507.83	ppb	17:36:01
1	Cr 267.716†	61020.1	60031.9	505.67	µg/L	505.67	ppb	17:36:01
1	Cu 324.752†	125899.3	121440.0	513.33	µg/L	513.33	ppb	17:36:01
1	Mn 257.610†	386743.5	381436.6	509.61	µg/L	509.61	ppb	17:36:01
1	Mo 202.031†	16018.7	15840.9	504.36	µg/L	504.36	ppb	17:36:21
1	Ni 231.604†	41402.0	40930.5	514.81	µg/L	514.81	ppb	17:36:01
1	P 214.914†	2238.6	2203.9	516.94	µg/L	516.94	ppb	17:36:21
1	Pb 220.353†	8688.8	8476.6	520.60	µg/L	520.60	ppb	17:36:21
1	S 181.975 Axial†	6531.4	6357.0	5215.3	µg/L	5215.3	ppb	17:36:21
1	Sb 206.836†	3988.9	3857.9	507.00	µg/L	507.00	ppb	17:36:21
1	Se 196.026†	1274.3	1243.8	500	µg/L	500	ppb	17:36:21
1	SiO2†	137215.6	133641.9	14276	µg/L	14276	ppb	17:36:01
1	Si 251.611†	419497.1	412982.6	6674.5	µg/L	6674.5	ppb	17:36:01
1	Sn 189.927†	7527.5	7430.2	516.10	µg/L	516.10	ppb	17:36:21
1	Ti 334.940†	511634.6	503960.6	504.22	µg/L	504.22	ppb	17:36:01
1	Tl 190.801†	3725.5	3793.1	517.38	µg/L	517.38	ppb	17:36:21
1	U 409.014†	7777.1	7957.7	529.40	µg/L	529.40	ppb	17:36:01
1	V 292.402†	97136.7	95538.1	513.95	µg/L	513.95	ppb	17:36:01
1	Zn 213.857†	82449.4	80830.9	497.27	µg/L	497.27	ppb	17:36:01
2	Sc RADIAL	152917.0	152917.0	103	%			17:35:52
2	Al 396.153Radial†	26209.1	25400.0	5210.7	µg/L	5210.7	ppb	17:35:52
2	Ca 317.933Radial†	90688.1	86973.1	5233.0	µg/L	5233.0	ppb	17:35:52
2	Fe 238.204 Radial†	79051.1	76280.5	5132.8	µg/L	5132.8	ppb	17:35:52
2	K 766.490 Radial†	15447.1	13620.4	5602.2	µg/L	5602.2	ppb	17:35:52
2	Mg 279.077 IEC†	13540.8	12921.6	5308.6	µg/L	5308.6	ppb	17:35:52
2	Na 589.592 Radial†	37835.2	35369.9	5365.8	µg/L	5365.8	ppb	17:35:52
2	Sr 421.552†	233056.9	225525.3	520.21	µg/L	520.21	ppb	17:35:50
2	Sc 361.383	1779908.4	1779908.4	101.41	%			17:36:24
2	Y 371.029	1063631.4	1063631.4	99.961	%			17:36:24
2	Ag 328.068†	129328.1	124076.8	499.55	µg/L	499.55	ppb	17:36:24
2	As 188.979†	1476.9	1474.0	521.65	µg/L	521.65	ppb	17:36:44
2	B 249.677†	35773.3	32043.9	520.70	µg/L	520.70	ppb	17:36:24
2	Ba 233.527†	119555.3	118049.6	514.42	µg/L	514.42	ppb	17:36:24
2	Be 313.107†	1712838.3	1689728.5	507.25	µg/L	507.25	ppb	17:36:24
2	Cd 226.502†	74690.6	73758.6	506.13	µg/L	506.13	ppb	17:36:24
2	Co 228.616†	37595.4	37243.3	503.98	µg/L	503.98	ppb	17:36:24
2	Cr 267.716†	60786.8	59760.2	503.39	µg/L	503.39	ppb	17:36:24
2	Cu 324.752†	125678.3	121136.1	512.04	µg/L	512.04	ppb	17:36:24
2	Mn 257.610†	384471.6	378932.3	506.26	µg/L	506.26	ppb	17:36:24
2	Mo 202.031†	16096.0	15906.2	506.43	µg/L	506.43	ppb	17:36:44
2	Ni 231.604†	41008.6	40514.4	509.58	µg/L	509.58	ppb	17:36:24
2	P 214.914†	2272.4	2235.7	524.54	µg/L	524.54	ppb	17:36:44
2	Pb 220.353†	8718.3	8499.7	522.03	µg/L	522.03	ppb	17:36:44

2	S 181.975 Axial†	6569.6	6390.2	5242.6 µg/L	5242.6 ppb	17:36:44
2	Sb 206.836†	4012.1	3878.0	509.70 µg/L	509.70 ppb	17:36:44
2	Se 196.026†	1280.8	1249.4	502 µg/L	502 ppb	17:36:44
2	SiO2†	136484.0	132826.8	14189 µg/L	14189 ppb	17:36:24
2	Si 251.611†	417272.6	410502.7	6634.3 µg/L	6634.3 ppb	17:36:24
2	Sn 189.927†	7554.1	7451.2	517.55 µg/L	517.55 ppb	17:36:44
2	Ti 334.940†	509469.0	501476.0	501.73 µg/L	501.73 ppb	17:36:24
2	Tl 190.801†	3756.1	3820.8	521.06 µg/L	521.06 ppb	17:36:44
2	U 409.014†	7640.5	7817.7	520.47 µg/L	520.47 ppb	17:36:24
2	V 292.402†	96718.5	95059.3	511.42 µg/L	511.42 ppb	17:36:24
2	Zn 213.857†	81766.8	80101.5	492.79 µg/L	492.79 ppb	17:36:24
3	Sc RADIAL	152377.3	152377.3	103 %		17:35:56
3	Al 396.153Radial†	25998.3	25285.3	5187.2 µg/L	5187.2 ppb	17:35:56
3	Ca 317.933Radial†	90311.7	86918.5	5229.7 µg/L	5229.7 ppb	17:35:56
3	Fe 238.204 Radial†	78686.6	76197.7	5127.2 µg/L	5127.2 ppb	17:35:56
3	K 766.490 Radial†	15267.7	13499.2	5552.3 µg/L	5552.3 ppb	17:35:56
3	Mg 279.077 IEC†	13587.9	13013.6	5346.3 µg/L	5346.3 ppb	17:35:56
3	Na 589.592 Radial†	37904.9	35567.0	5395.8 µg/L	5395.8 ppb	17:35:56
3	Sr 421.552†	234755.3	227971.0	525.85 µg/L	525.85 ppb	17:35:54
3	Sc 361.383	1777007.4	1777007.4	101.25 %		17:36:47
3	Y 371.029	1062476.3	1062476.3	99.853 %		17:36:47
3	Ag 328.068†	129343.0	124299.7	500.45 µg/L	500.45 ppb	17:36:47
3	As 188.979†	1454.3	1454.0	514.68 µg/L	514.68 ppb	17:37:07
3	B 249.677†	35820.2	32147.8	522.39 µg/L	522.39 ppb	17:36:47
3	Ba 233.527†	119752.4	118436.7	516.10 µg/L	516.10 ppb	17:36:47
3	Be 313.107†	1712243.0	1691897.8	507.90 µg/L	507.90 ppb	17:36:47
3	Cd 226.502†	74610.3	73799.6	506.41 µg/L	506.41 ppb	17:36:47
3	Co 228.616†	37720.3	37427.2	506.47 µg/L	506.47 ppb	17:36:47
3	Cr 267.716†	60761.6	59833.2	503.99 µg/L	503.99 ppb	17:36:47
3	Cu 324.752†	125294.5	120959.3	511.30 µg/L	511.30 ppb	17:36:47
3	Mn 257.610†	384118.8	379202.8	506.62 µg/L	506.62 ppb	17:36:47
3	Mo 202.031†	15989.9	15827.3	503.92 µg/L	503.92 ppb	17:37:07
3	Ni 231.604†	41165.5	40735.3	512.36 µg/L	512.36 ppb	17:36:47
3	P 214.914†	2216.9	2184.5	512.37 µg/L	512.37 ppb	17:37:07
3	Pb 220.353†	8652.5	8448.7	518.89 µg/L	518.89 ppb	17:37:07
3	S 181.975 Axial†	6521.8	6353.6	5212.5 µg/L	5212.5 ppb	17:37:07
3	Sb 206.836†	3987.8	3860.5	507.35 µg/L	507.35 ppb	17:37:07
3	Se 196.026†	1277.2	1247.9	502 µg/L	502 ppb	17:37:07
3	SiO2†	136690.2	133250.2	14234 µg/L	14234 ppb	17:36:47
3	Si 251.611†	417360.3	411261.0	6646.6 µg/L	6646.6 ppb	17:36:47
3	Sn 189.927†	7528.3	7437.9	516.63 µg/L	516.63 ppb	17:37:07
3	Ti 334.940†	509320.5	502149.4	502.40 µg/L	502.40 ppb	17:36:47
3	Tl 190.801†	3736.3	3807.3	519.25 µg/L	519.25 ppb	17:37:07
3	U 409.014†	7803.4	7990.9	531.29 µg/L	531.29 ppb	17:36:47
3	V 292.402†	96469.2	94968.8	510.92 µg/L	510.92 ppb	17:36:47
3	Zn 213.857†	82184.1	80645.3	496.14 µg/L	496.14 ppb	17:36:47

Mean Data: 1202065058|962580|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778530.9	101.34	%	0.083				0.08%
Sc RADIAL	152936.8	103	%	0.4				0.37%
Y 371.029	1062749.5	99.878	%	0.0735				0.07%
Ag 328.068†	124324.2	500.55	µg/L	1.056	500.55	ppb	1.056	0.21%
Al 396.153Radial†	25374.1	5205.5	µg/L	16.28	5205.5	ppb	16.28	0.31%
As 188.979†	1462.5	517.66	µg/L	3.595	517.66	ppb	3.595	0.69%
B 249.677†	32113.2	521.83	µg/L	0.972	521.83	ppb	0.972	0.19%
Ba 233.527†	118417.2	516.02	µg/L	1.560	516.02	ppb	1.560	0.30%
Be 313.107†	1693065.7	508.25	µg/L	1.216	508.25	ppb	1.216	0.24%
Ca 317.933Radial†	87081.1	5239.5	µg/L	14.20	5239.5	ppb	14.20	0.27%
Cd 226.502†	73926.2	507.28	µg/L	1.753	507.28	ppb	1.753	0.35%
Co 228.616†	37399.3	506.09	µg/L	1.949	506.09	ppb	1.949	0.39%
Cr 267.716†	59875.1	504.35	µg/L	1.183	504.35	ppb	1.183	0.23%
Cu 324.752†	121178.4	512.22	µg/L	1.028	512.22	ppb	1.028	0.20%
Fe 238.204 Radial†	76432.5	5143.0	µg/L	22.71	5143.0	ppb	22.71	0.44%
K 766.490 Radial†	13540.9	5569.5	µg/L	28.35	5569.5	ppb	28.35	0.51%
Mg 279.077 IEC†	12970.8	5328.8	µg/L	18.98	5328.8	ppb	18.98	0.36%
Mn 257.610†	379857.2	507.50	µg/L	1.837	507.50	ppb	1.837	0.36%
Mo 202.031†	15858.1	504.90	µg/L	1.340	504.90	ppb	1.340	0.27%
Na 589.592 Radial†	35534.6	5390.9	µg/L	22.98	5390.9	ppb	22.98	0.43%

Ni 231.604†	40726.8	512.25 µg/L	2.619	512.25 ppb	2.619	0.51%
P 214.914†	2208.0	517.95 µg/L	6.148	517.95 ppb	6.148	1.19%
Pb 220.353†	8475.0	520.51 µg/L	1.569	520.51 ppb	1.569	0.30%
S 181.975 Axial†	6367.0	5223.5 µg/L	16.61	5223.5 ppb	16.61	0.32%
Sb 206.836†	3865.5	508.02 µg/L	1.471	508.02 ppb	1.471	0.29%
Se 196.026†	1247.0	501 µg/L	1.2	501 ppb	1.2	0.23%
SiO2†	133239.6	14233 µg/L	43.7	14233 ppb	43.7	0.31%
Si 251.611†	411582.1	6651.8 µg/L	20.58	6651.8 ppb	20.58	0.31%
Sn 189.927†	7439.8	516.76 µg/L	0.734	516.76 ppb	0.734	0.14%
Sr 421.552†	226530.8	522.53 µg/L	2.952	522.53 ppb	2.952	0.56%
Ti 334.940†	502528.7	502.78 µg/L	1.285	502.78 ppb	1.285	0.26%
Tl 190.801†	3807.1	519.23 µg/L	1.841	519.23 ppb	1.841	0.35%
U 409.014†	7922.1	527.05 µg/L	5.779	527.05 ppb	5.779	1.10%
V 292.402†	95188.7	512.10 µg/L	1.623	512.10 ppb	1.623	0.32%
Zn 213.857†	80525.9	495.40 µg/L	2.333	495.40 ppb	2.333	0.47%

Sequence No.: 16
Sample ID: 1202065059|962580|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 148
Date Collected: 3/30/2010 17:37:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065059|962580|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	156127.6	156127.6	106	%			17:37:46
1	Al 396.153Radial†	-28.8	35.6	7.3386	µg/L	7.3386	ppb	17:38:06
1	Ca 317.933Radial†	837.8	95.3	5.7316	µg/L	5.7316	ppb	17:38:06
1	Fe 238.204 Radial†	187.4	36.7	2.4702	µg/L	2.4702	ppb	17:38:06
1	K 766.490 Radial†	1768.6	361.8	148.87	µg/L	148.87	ppb	17:37:46
1	Mg 279.077 IEC†	155.0	-22.0	-9.0339	µg/L	-9.0339	ppb	17:38:06
1	Na 589.592 Radial†	1731.5	432.9	65.600	µg/L	65.600	ppb	17:37:46
1	Sr 421.552†	-64.8	160.3	0.3696	µg/L	0.3696	ppb	17:37:46
1	Sc 361.383	1789748.9	1789748.9	101.98	%			17:38:54
1	Y 371.029	1081946.5	1081946.5	101.68	%			17:38:54
1	Ag 328.068†	3646.0	128.3	0.5023	µg/L	0.5023	ppb	17:38:56
1	As 188.979†	-15.3	2.6	0.9259	µg/L	0.9259	ppb	17:39:16
1	B 249.677†	3534.2	235.4	3.8373	µg/L	3.8373	ppb	17:39:16
1	Ba 233.527†	-151.0	14.0	0.0612	µg/L	0.0612	ppb	17:39:16
1	Be 313.107†	-851.4	-49.3	-0.0177	µg/L	-0.0177	ppb	17:38:56
1	Cd 226.502†	-103.0	9.0	0.0616	µg/L	0.0616	ppb	17:39:16
1	Co 228.616†	-174.4	1.4	0.0187	µg/L	0.0187	ppb	17:39:16
1	Cr 267.716†	200.6	18.1	0.1606	µg/L	0.1606	ppb	17:39:16
1	Cu 324.752†	2946.8	100.8	0.4169	µg/L	0.4169	ppb	17:38:56
1	Mn 257.610†	299.3	117.9	0.1580	µg/L	0.1580	ppb	17:39:16
1	Mo 202.031†	-40.1	-4.5	-0.1439	µg/L	-0.1439	ppb	17:39:16
1	Ni 231.604†	-70.0	9.3	0.1168	µg/L	0.1168	ppb	17:39:16
1	P 214.914†	27.6	22.1	5.2733	µg/L	5.2733	ppb	17:39:16
1	Pb 220.353†	77.2	-21.2	-1.2919	µg/L	-1.2919	ppb	17:39:16
1	S 181.975 Axial†	94.9	5.4	4.3873	µg/L	4.3873	ppb	17:39:16
1	Sb 206.836†	93.7	13.8	1.8040	µg/L	1.8040	ppb	17:39:16
1	Se 196.026†	5.8	-7.9	-3.17	µg/L	-3.17	ppb	17:39:16
1	SiO2†	8299.6	6385.6	683.16	µg/L	683.16	ppb	17:38:56
1	Si 251.611†	21131.8	19773.8	320.06	µg/L	320.06	ppb	17:38:56
1	Sn 189.927†	8.0	10.4	0.7180	µg/L	0.7180	ppb	17:39:16
1	Ti 334.940†	841.1	-60.8	-0.0562	µg/L	-0.0562	ppb	17:38:56
1	Tl 190.801†	-108.0	11.2	1.5045	µg/L	1.5045	ppb	17:39:16
1	U 409.014†	-444.9	-152.5	-9.5293	µg/L	-9.5293	ppb	17:38:56
1	V 292.402†	387.2	69.9	0.3634	µg/L	0.3634	ppb	17:38:56
1	Zn 213.857†	620.1	83.5	0.5165	µg/L	0.5165	ppb	17:39:16
2	Sc RADIAL	153789.2	153789.2	104	%			17:38:08
2	Al 396.153Radial†	-45.4	19.2	3.9791	µg/L	3.9791	ppb	17:38:28
2	Ca 317.933Radial†	804.8	75.6	4.5488	µg/L	4.5488	ppb	17:38:28
2	Fe 238.204 Radial†	169.8	22.6	1.5184	µg/L	1.5184	ppb	17:38:28
2	K 766.490 Radial†	1731.7	351.8	144.79	µg/L	144.79	ppb	17:38:08
2	Mg 279.077 IEC†	191.4	15.2	6.2390	µg/L	6.2390	ppb	17:38:28
2	Na 589.592 Radial†	1600.0	331.4	50.195	µg/L	50.195	ppb	17:38:08
2	Sr 421.552†	-214.2	15.7	0.0362	µg/L	0.0362	ppb	17:38:08
2	Sc 361.383	1781746.6	1781746.6	101.52	%			17:39:18
2	Y 371.029	1076300.1	1076300.1	101.15	%			17:39:18
2	Ag 328.068†	3230.3	-265.2	-1.0551	µg/L	-1.0551	ppb	17:39:20
2	As 188.979†	-23.0	-4.9	-1.7248	µg/L	-1.7248	ppb	17:39:40
2	B 249.677†	3454.0	172.0	2.8048	µg/L	2.8048	ppb	17:39:40
2	Ba 233.527†	-166.5	-1.9	-0.0083	µg/L	-0.0083	ppb	17:39:40
2	Be 313.107†	-817.7	-19.8	-0.0059	µg/L	-0.0059	ppb	17:39:20
2	Cd 226.502†	-123.8	-11.9	-0.0820	µg/L	-0.0820	ppb	17:39:40
2	Co 228.616†	-197.6	-22.2	-0.3000	µg/L	-0.3000	ppb	17:39:40
2	Cr 267.716†	171.3	-9.8	-0.0829	µg/L	-0.0829	ppb	17:39:40
2	Cu 324.752†	2911.9	79.4	0.3350	µg/L	0.3350	ppb	17:39:20
2	Mn 257.610†	305.8	125.7	0.1677	µg/L	0.1677	ppb	17:39:40
2	Mo 202.031†	-44.7	-9.2	-0.2940	µg/L	-0.2940	ppb	17:39:40
2	Ni 231.604†	-89.5	-10.2	-0.1288	µg/L	-0.1288	ppb	17:39:40
2	P 214.914†	8.7	3.6	0.8445	µg/L	0.8445	ppb	17:39:40
2	Pb 220.353†	91.6	-6.7	-0.4124	µg/L	-0.4124	ppb	17:39:40

2	S 181.975 Axial†	101.5	12.3	10.056 µg/L	10.056 ppb	17:39:40
2	Sb 206.836†	79.4	0.1	0.0096 µg/L	0.0096 ppb	17:39:40
2	Se 196.026†	17.2	3.4	1.36 µg/L	1.36 ppb	17:39:40
2	SiO2†	8319.1	6441.5	689.15 µg/L	689.15 ppb	17:39:20
2	Si 251.611†	21484.5	20214.3	327.20 µg/L	327.20 ppb	17:39:20
2	Sn 189.927†	-5.8	-3.1	-0.2184 µg/L	-0.2184 ppb	17:39:40
2	Ti 334.940†	716.4	-179.9	-0.1807 µg/L	-0.1807 ppb	17:39:20
2	Tl 190.801†	-116.4	2.4	0.3197 µg/L	0.3197 ppb	17:39:40
2	U 409.014†	-283.2	4.8	0.2952 µg/L	0.2952 ppb	17:39:20
2	V 292.402†	292.5	-21.7	-0.1184 µg/L	-0.1184 ppb	17:39:20
2	Zn 213.857†	627.7	93.8	0.5821 µg/L	0.5821 ppb	17:39:40
3	Sc RADIAL	156318.4	156318.4	106 %		17:38:30
3	Al 396.153Radial†	-68.9	-2.2	-0.4695 µg/L	-0.4695 ppb	17:38:50
3	Ca 317.933Radial†	827.5	84.6	5.0884 µg/L	5.0884 ppb	17:38:50
3	Fe 238.204 Radial†	183.4	32.7	2.2011 µg/L	2.2011 ppb	17:38:50
3	K 766.490 Radial†	1585.1	186.2	76.627 µg/L	76.627 ppb	17:38:30
3	Mg 279.077 IEC†	177.3	-1.1	-0.4699 µg/L	-0.4699 ppb	17:38:50
3	Na 589.592 Radial†	1692.9	394.4	59.818 µg/L	59.818 ppb	17:38:30
3	Sr 421.552†	-205.2	27.6	0.0637 µg/L	0.0637 ppb	17:38:30
3	Sc 361.383	1792098.6	1792098.6	102.11 %		17:39:42
3	Y 371.029	1081624.7	1081624.7	101.65 %		17:39:42
3	Ag 328.068†	3357.4	-159.0	-0.6346 µg/L	-0.6346 ppb	17:39:44
3	As 188.979†	-18.9	-0.8	-0.2902 µg/L	-0.2902 ppb	17:40:05
3	B 249.677†	3500.3	197.6	3.2224 µg/L	3.2224 ppb	17:40:05
3	Ba 233.527†	-131.8	33.0	0.1436 µg/L	0.1436 ppb	17:40:05
3	Be 313.107†	-630.2	168.4	0.0514 µg/L	0.0514 ppb	17:39:44
3	Cd 226.502†	-118.3	-5.8	-0.0400 µg/L	-0.0400 ppb	17:40:05
3	Co 228.616†	-174.4	1.6	0.0222 µg/L	0.0222 ppb	17:40:05
3	Cr 267.716†	174.2	-8.0	-0.0696 µg/L	-0.0696 ppb	17:40:05
3	Cu 324.752†	2931.6	82.1	0.3488 µg/L	0.3488 ppb	17:39:44
3	Mn 257.610†	297.3	115.6	0.1545 µg/L	0.1545 ppb	17:40:05
3	Mo 202.031†	-30.7	4.7	0.1482 µg/L	0.1482 ppb	17:40:05
3	Ni 231.604†	-69.4	9.9	0.1243 µg/L	0.1243 ppb	17:40:05
3	P 214.914†	22.4	17.0	4.0458 µg/L	4.0458 ppb	17:40:05
3	Pb 220.353†	98.7	-0.3	-0.0201 µg/L	-0.0201 ppb	17:40:05
3	S 181.975 Axial†	101.1	11.3	9.2880 µg/L	9.2880 ppb	17:40:05
3	Sb 206.836†	74.6	-5.0	-0.6517 µg/L	-0.6517 ppb	17:40:05
3	Se 196.026†	12.6	-1.2	-0.483 µg/L	-0.483 ppb	17:40:05
3	SiO2†	8270.5	6346.5	678.97 µg/L	678.97 ppb	17:39:44
3	Si 251.611†	21048.6	19665.1	318.30 µg/L	318.30 ppb	17:39:44
3	Sn 189.927†	9.5	11.9	0.8226 µg/L	0.8226 ppb	17:40:05
3	Ti 334.940†	982.7	76.8	0.0760 µg/L	0.0760 ppb	17:39:44
3	Tl 190.801†	-105.2	14.1	1.8921 µg/L	1.8921 ppb	17:40:05
3	U 409.014†	-241.6	47.2	2.9280 µg/L	2.9280 ppb	17:39:44
3	V 292.402†	221.0	-93.5	-0.4932 µg/L	-0.4932 ppb	17:39:44
3	Zn 213.857†	634.1	96.4	0.5966 µg/L	0.5966 ppb	17:40:05

Mean Data: 1202065059|962580|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787864.7	101.87	%	0.309				0.30%
Sc RADIAL	155411.7	105	%	1.0				0.91%
Y 371.029	1079957.1	101.50	%	0.298				0.29%
Ag 328.068†	-98.6	-0.3958	µg/L	0.80571	-0.3958	ppb	0.80571	203.56%
Al 396.153Radial†	17.5	3.6160	µg/L	3.91671	3.6160	ppb	3.91671	108.32%
As 188.979†	-1.0	-0.3630	µg/L	1.32684	-0.3630	ppb	1.32684	365.52%
B 249.677†	201.7	3.2882	µg/L	0.51938	3.2882	ppb	0.51938	15.80%
Ba 233.527†	15.1	0.0655	µg/L	0.07604	0.0655	ppb	0.07604	116.11%
Be 313.107†	33.1	0.0093	µg/L	0.03697	0.0093	ppb	0.03697	397.74%
Ca 317.933Radial†	85.1	5.1229	µg/L	0.59215	5.1229	ppb	0.59215	11.56%
Cd 226.502†	-2.9	-0.0201	µg/L	0.07384	-0.0201	ppb	0.07384	366.99%
Co 228.616†	-6.4	-0.0864	µg/L	0.18504	-0.0864	ppb	0.18504	214.25%
Cr 267.716†	0.1	0.0027	µg/L	0.13693	0.0027	ppb	0.13693	>999.9%
Cu 324.752†	87.4	0.3669	µg/L	0.04388	0.3669	ppb	0.04388	11.96%
Fe 238.204 Radial†	30.7	2.0632	µg/L	0.49064	2.0632	ppb	0.49064	23.78%
K 766.490 Radial†	299.9	123.43	µg/L	40.583	123.43	ppb	40.583	32.88%
Mg 279.077 IEC†	-2.6	-1.0883	µg/L	7.65519	-1.0883	ppb	7.65519	703.42%
Mn 257.610†	119.7	0.1601	µg/L	0.00687	0.1601	ppb	0.00687	4.29%
Mo 202.031†	-3.0	-0.0966	µg/L	0.22487	-0.0966	ppb	0.22487	232.78%
Na 589.592 Radial†	386.2	58.538	µg/L	7.7815	58.538	ppb	7.7815	13.29%

Ni 231.604†	3.0	0.0374 µg/L	0.14399	0.0374 ppb	0.14399	384.75%
P 214.914†	14.2	3.3879 µg/L	2.28654	3.3879 ppb	2.28654	67.49%
Pb 220.353†	-9.4	-0.5748 µg/L	0.65124	-0.5748 ppb	0.65124	113.30%
S 181.975 Axial†	9.7	7.9105 µg/L	3.07528	7.9105 ppb	3.07528	38.88%
Sb 206.836†	3.0	0.3873 µg/L	1.27064	0.3873 ppb	1.27064	328.08%
Se 196.026†	-1.9	-0.764 µg/L	2.2791	-0.764 ppb	2.2791	298.21%
SiO2†	6391.2	683.76 µg/L	5.120	683.76 ppb	5.120	0.75%
Si 251.611†	19884.4	321.85 µg/L	4.713	321.85 ppb	4.713	1.46%
Sn 189.927†	6.4	0.4407 µg/L	0.57322	0.4407 ppb	0.57322	130.06%
Sr 421.552†	67.9	0.1565 µg/L	0.18507	0.1565 ppb	0.18507	118.24%
Ti 334.940†	-54.6	-0.0536 µg/L	0.12833	-0.0536 ppb	0.12833	239.31%
Tl 190.801†	9.2	1.2387 µg/L	0.81920	1.2387 ppb	0.81920	66.13%
U 409.014†	-33.5	-2.1020 µg/L	6.56551	-2.1020 ppb	6.56551	312.34%
V 292.402†	-15.1	-0.0827 µg/L	0.42944	-0.0827 ppb	0.42944	518.98%
Zn 213.857†	91.2	0.5651 µg/L	0.04270	0.5651 ppb	0.04270	7.56%

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/30/2010 17:40:12
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	154418.8	154418.8	104	%			17:40:45
1	Al 396.153Radial†	25881.5	24840.1	5095.1	µg/L	5095.1	ppb	17:40:45
1	Ca 317.933Radial†	89405.0	84892.2	5107.8	µg/L	5107.8	ppb	17:40:45
1	Fe 238.204 Radial†	78825.0	75320.8	5068.2	µg/L	5068.2	ppb	17:40:45
1	K 766.490 Radial†	14351.2	12426.0	5109.9	µg/L	5109.9	ppb	17:40:45
1	Mg 279.077 IEC†	13472.2	12728.5	5229.6	µg/L	5229.6	ppb	17:40:45
1	Na 589.592 Radial†	70371.6	66162.3	10042	µg/L	10042	ppb	17:40:45
1	Sr 421.552†	231921.2	222246.9	512.65	µg/L	512.65	ppb	17:40:43
1	Sc 361.383	1770216.3	1770216.3	100.86	%			17:41:12
1	Y 371.029	1058374.3	1058374.3	99.467	%			17:41:12
1	Ag 328.068†	130653.5	126089.1	507.50	µg/L	507.50	ppb	17:41:12
1	As 188.979†	1448.8	1454.1	514.70	µg/L	514.70	ppb	17:41:32
1	B 249.677†	34436.8	30912.0	502.23	µg/L	502.23	ppb	17:41:12
1	Ba 233.527†	116767.3	115930.9	505.19	µg/L	505.19	ppb	17:41:12
1	Be 313.107†	1699194.9	1685448.9	505.96	µg/L	505.96	ppb	17:41:12
1	Cd 226.502†	74344.1	73818.3	506.54	µg/L	506.54	ppb	17:41:12
1	Co 228.616†	37776.5	37625.9	509.15	µg/L	509.15	ppb	17:41:12
1	Cr 267.716†	60453.2	59757.6	503.37	µg/L	503.37	ppb	17:41:12
1	Cu 324.752†	123125.1	119283.2	504.21	µg/L	504.21	ppb	17:41:12
1	Mn 257.610†	382389.5	378943.7	506.28	µg/L	506.28	ppb	17:41:12
1	Mo 202.031†	16142.5	16039.2	510.65	µg/L	510.65	ppb	17:41:32
1	Ni 231.604†	40624.4	40354.8	507.57	µg/L	507.57	ppb	17:41:12
1	P 214.914†	10878.0	10780.0	2562.6	µg/L	2562.6	ppb	17:41:32
1	Pb 220.353†	8582.5	8412.1	516.69	µg/L	516.69	ppb	17:41:32
1	S 181.975 Axial†	1354.9	1255.6	1033.6	µg/L	1033.6	ppb	17:41:32
1	Sb 206.836†	4013.1	3900.7	512.73	µg/L	512.73	ppb	17:41:32
1	Se 196.026†	1310.6	1285.8	517	µg/L	517	ppb	17:41:32
1	SiO2†	52722.5	50518.5	5382.8	µg/L	5382.8	ppb	17:41:12
1	Si 251.611†	158212.1	155910.4	2513.4	µg/L	2513.4	ppb	17:41:12
1	Sn 189.927†	7470.8	7409.5	514.67	µg/L	514.67	ppb	17:41:32
1	Ti 334.940†	509168.7	503928.7	504.20	µg/L	504.20	ppb	17:41:12
1	Tl 190.801†	3749.6	3834.6	522.90	µg/L	522.90	ppb	17:41:32
1	U 409.014†	7397.7	7618.2	507.79	µg/L	507.79	ppb	17:41:12
1	V 292.402†	95558.2	94431.1	508.12	µg/L	508.12	ppb	17:41:12
1	Zn 213.857†	83202.9	81966.8	504.38	µg/L	504.38	ppb	17:41:12
2	Sc RADIAL	152256.9	152256.9	103	%			17:40:49
2	Al 396.153Radial†	25420.4	24744.1	5075.6	µg/L	5075.6	ppb	17:40:49
2	Ca 317.933Radial†	88042.4	84784.4	5101.3	µg/L	5101.3	ppb	17:40:49
2	Fe 238.204 Radial†	77781.8	75379.5	5072.2	µg/L	5072.2	ppb	17:40:49
2	K 766.490 Radial†	14172.4	12447.5	5118.8	µg/L	5118.8	ppb	17:40:49
2	Mg 279.077 IEC†	13260.1	12705.8	5220.1	µg/L	5220.1	ppb	17:40:49
2	Na 589.592 Radial†	69446.9	66221.0	10051	µg/L	10051	ppb	17:40:49
2	Sr 421.552†	231973.3	225450.1	520.04	µg/L	520.04	ppb	17:40:47
2	Sc 361.383	1750687.1	1750687.1	99.750	%			17:41:35
2	Y 371.029	1047187.7	1047187.7	98.416	%			17:41:35
2	Ag 328.068†	129307.7	126184.9	507.89	µg/L	507.89	ppb	17:41:35
2	As 188.979†	1415.4	1436.6	508.61	µg/L	508.61	ppb	17:41:55
2	B 249.677†	34174.1	31029.5	504.14	µg/L	504.14	ppb	17:41:35
2	Ba 233.527†	115618.6	116070.7	505.80	µg/L	505.80	ppb	17:41:35
2	Be 313.107†	1681827.2	1686830.4	506.38	µg/L	506.38	ppb	17:41:35
2	Cd 226.502†	73697.6	73992.4	507.74	µg/L	507.74	ppb	17:41:35
2	Co 228.616†	37362.3	37628.4	509.19	µg/L	509.19	ppb	17:41:35
2	Cr 267.716†	59945.8	59917.6	504.72	µg/L	504.72	ppb	17:41:35
2	Cu 324.752†	122121.4	119638.7	505.71	µg/L	505.71	ppb	17:41:35
2	Mn 257.610†	378960.5	379735.3	507.34	µg/L	507.34	ppb	17:41:35
2	Mo 202.031†	15799.0	15873.4	505.38	µg/L	505.38	ppb	17:41:55
2	Ni 231.604†	40245.2	40424.0	508.44	µg/L	508.44	ppb	17:41:35
2	P 214.914†	10594.8	10616.3	2523.6	µg/L	2523.6	ppb	17:41:55
2	Pb 220.353†	8346.4	8270.4	507.99	µg/L	507.99	ppb	17:41:55

2	S 181.975 Axial†	1315.0	1230.6	1013.0 µg/L	1013.0 ppb	17:41:55
2	Sb 206.836†	3926.2	3857.9	507.01 µg/L	507.01 ppb	17:41:55
2	Se 196.026†	1283.5	1273.1	512 µg/L	512 ppb	17:41:55
2	SiO2†	52198.4	50576.1	5389.2 µg/L	5389.2 ppb	17:41:35
2	Si 251.611†	157052.2	156497.4	2523.0 µg/L	2523.0 ppb	17:41:35
2	Sn 189.927†	7295.4	7316.3	508.22 µg/L	508.22 ppb	17:41:55
2	Ti 334.940†	504666.0	505046.0	505.31 µg/L	505.31 ppb	17:41:35
2	Tl 190.801†	3638.3	3764.5	513.49 µg/L	513.49 ppb	17:41:55
2	U 409.014†	7417.4	7719.8	514.19 µg/L	514.19 ppb	17:41:35
2	V 292.402†	94605.0	94532.4	508.61 µg/L	508.61 ppb	17:41:35
2	Zn 213.857†	82370.8	82052.8	504.91 µg/L	504.91 ppb	17:41:35
3	Sc RADIAL	152947.1	152947.1	103 %		17:40:53
3	Al 396.153Radial†	25668.1	24872.2	5101.8 µg/L	5101.8 ppb	17:40:53
3	Ca 317.933Radial†	88921.9	85248.8	5129.2 µg/L	5129.2 ppb	17:40:53
3	Fe 238.204 Radial†	78236.0	75477.7	5078.8 µg/L	5078.8 ppb	17:40:53
3	K 766.490 Radial†	14358.7	12565.5	5167.3 µg/L	5167.3 ppb	17:40:53
3	Mg 279.077 IEC†	13303.1	12689.2	5213.4 µg/L	5213.4 ppb	17:40:53
3	Na 589.592 Radial†	69816.7	66274.2	10059 µg/L	10059 ppb	17:40:53
3	Sr 421.552†	230012.7	222538.7	513.32 µg/L	513.32 ppb	17:40:51
3	Sc 361.383	1730890.4	1730890.4	98.622 %		17:41:58
3	Y 371.029	1036634.2	1036634.2	97.424 %		17:41:58
3	Ag 328.068†	128218.1	126562.7	509.38 µg/L	509.38 ppb	17:41:58
3	As 188.979†	1421.5	1459.1	516.45 µg/L	516.45 ppb	17:42:18
3	B 249.677†	33515.7	30753.7	499.65 µg/L	499.65 ppb	17:41:58
3	Ba 233.527†	114235.8	115994.3	505.47 µg/L	505.47 ppb	17:41:58
3	Be 313.107†	1658067.5	1682022.5	504.93 µg/L	504.93 ppb	17:41:58
3	Cd 226.502†	72585.2	73709.5	505.80 µg/L	505.80 ppb	17:41:58
3	Co 228.616†	36920.9	37609.3	508.93 µg/L	508.93 ppb	17:41:58
3	Cr 267.716†	59212.3	59861.1	504.25 µg/L	504.25 ppb	17:41:58
3	Cu 324.752†	120482.8	119377.5	504.61 µg/L	504.61 ppb	17:41:58
3	Mn 257.610†	374104.2	379156.2	506.57 µg/L	506.57 ppb	17:41:58
3	Mo 202.031†	15772.0	16027.1	510.27 µg/L	510.27 ppb	17:42:18
3	Ni 231.604†	39690.0	40322.5	507.17 µg/L	507.17 ppb	17:41:58
3	P 214.914†	10538.2	10680.4	2538.8 µg/L	2538.8 ppb	17:42:18
3	Pb 220.353†	8367.4	8387.4	515.18 µg/L	515.18 ppb	17:42:18
3	S 181.975 Axial†	1314.1	1244.8	1024.7 µg/L	1024.7 ppb	17:42:18
3	Sb 206.836†	3901.7	3878.2	509.75 µg/L	509.75 ppb	17:42:18
3	Se 196.026†	1266.3	1270.4	511 µg/L	511 ppb	17:42:18
3	SiO2†	51351.6	50316.0	5361.2 µg/L	5361.2 ppb	17:41:58
3	Si 251.611†	154950.0	156166.6	2517.6 µg/L	2517.6 ppb	17:41:58
3	Sn 189.927†	7269.1	7373.3	512.16 µg/L	512.16 ppb	17:42:18
3	Ti 334.940†	498628.4	504710.5	504.98 µg/L	504.98 ppb	17:41:58
3	Tl 190.801†	3639.4	3807.3	519.24 µg/L	519.24 ppb	17:42:18
3	U 409.014†	7213.7	7598.2	506.56 µg/L	506.56 ppb	17:41:58
3	V 292.402†	93505.2	94502.0	508.50 µg/L	508.50 ppb	17:41:58
3	Zn 213.857†	81375.0	81987.6	504.51 µg/L	504.51 ppb	17:41:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750597.9	99.745	%	1.1204				1.12%
Sc RADIAL	153207.6	104	%	0.7				0.72%
Y 371.029	1047398.7	98.436	%	1.0217				1.04%
Ag 328.068†	126278.9	508.26	µg/L	0.994	508.26	ppb	0.994	0.20%
QC value within limits for Ag 328.068 Recovery = 101.65%								
Al 396.153Radial†	24818.8	5090.8	µg/L	13.60	5090.8	ppb	13.60	0.27%
QC value within limits for Al 396.153Radial Recovery = 101.82%								
As 188.979†	1449.9	513.25	µg/L	4.114	513.25	ppb	4.114	0.80%
QC value within limits for As 188.979 Recovery = 102.65%								
B 249.677†	30898.4	502.01	µg/L	2.256	502.01	ppb	2.256	0.45%
QC value within limits for B 249.677 Recovery = 100.40%								
Ba 233.527†	115998.6	505.49	µg/L	0.304	505.49	ppb	0.304	0.06%
QC value within limits for Ba 233.527 Recovery = 101.10%								
Be 313.107†	1684767.3	505.76	µg/L	0.744	505.76	ppb	0.744	0.15%
QC value within limits for Be 313.107 Recovery = 101.15%								
Ca 317.933Radial†	84975.2	5112.7	µg/L	14.62	5112.7	ppb	14.62	0.29%
QC value within limits for Ca 317.933Radial Recovery = 102.25%								
Cd 226.502†	73840.1	506.69	µg/L	0.980	506.69	ppb	0.980	0.19%
QC value within limits for Cd 226.502 Recovery = 101.34%								
Co 228.616†	37621.2	509.09	µg/L	0.141	509.09	ppb	0.141	0.03%

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   QC value within limits for Co 228.616  Recovery = 101.82%
Cr 267.716†            59845.4      504.11 µg/L         0.682      504.11 ppb          0.682   0.14%
   QC value within limits for Cr 267.716  Recovery = 100.82%
Cu 324.752†           119433.1      504.84 µg/L         0.779      504.84 ppb          0.779   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.97%
Fe 238.204 Radial†     75392.7      5073.1 µg/L          5.33      5073.1 ppb           5.33   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.46%
K 766.490 Radial†      12479.7      5132.0 µg/L         30.90      5132.0 ppb          30.90   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 102.64%
Mg 279.077 IEC†        12707.8      5221.1 µg/L          8.12      5221.1 ppb           8.12   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.42%
Mn 257.610†           379278.4      506.73 µg/L         0.548      506.73 ppb          0.548   0.11%
   QC value within limits for Mn 257.610  Recovery = 101.35%
Mo 202.031†            15979.9      508.77 µg/L         2.941      508.77 ppb          2.941   0.58%
   QC value within limits for Mo 202.031  Recovery = 101.75%
Na 589.592 Radial†     66219.2       10051 µg/L           8.5       10051 ppb            8.5   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40367.1      507.73 µg/L         0.652      507.73 ppb          0.652   0.13%
   QC value within limits for Ni 231.604  Recovery = 101.55%
P 214.914†             10692.3      2541.7 µg/L         19.68      2541.7 ppb          19.68   0.77%
   QC value within limits for P 214.914  Recovery = 101.67%
Pb 220.353†             8356.6      513.29 µg/L         4.647      513.29 ppb          4.647   0.91%
   QC value within limits for Pb 220.353  Recovery = 102.66%
S 181.975 Axial†        1243.7      1023.8 µg/L         10.32      1023.8 ppb          10.32   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 102.38%
Sb 206.836†             3879.0      509.83 µg/L         2.858      509.83 ppb          2.858   0.56%
   QC value within limits for Sb 206.836  Recovery = 101.97%
Se 196.026†             1276.5         513 µg/L           3.3         513 ppb            3.3   0.64%
   QC value within limits for Se 196.026  Recovery = 102.63%
SiO2†                  50470.2      5377.7 µg/L         14.69      5377.7 ppb          14.69   0.27%
   QC value within limits for SiO2  Recovery = 100.56%
Si 251.611†           156191.5      2518.0 µg/L          4.82      2518.0 ppb           4.82   0.19%
   QC value within limits for Si 251.611  Recovery = 100.72%
Sn 189.927†             7366.3      511.68 µg/L         3.252      511.68 ppb          3.252   0.64%
   QC value within limits for Sn 189.927  Recovery = 102.34%
Sr 421.552†           223411.9      515.34 µg/L         4.086      515.34 ppb          4.086   0.79%
   QC value within limits for Sr 421.552  Recovery = 103.07%
Ti 334.940†           504561.7      504.83 µg/L         0.574      504.83 ppb          0.574   0.11%
   QC value within limits for Ti 334.940  Recovery = 100.97%
Tl 190.801†             3802.2      518.55 µg/L         4.742      518.55 ppb          4.742   0.91%
   QC value within limits for Tl 190.801  Recovery = 103.71%
U 409.014†              7645.4      509.51 µg/L         4.094      509.51 ppb          4.094   0.80%
   QC value within limits for U 409.014  Recovery = 101.90%
V 292.402†             94488.5      508.41 µg/L         0.257      508.41 ppb          0.257   0.05%
   QC value within limits for V 292.402  Recovery = 101.68%
Zn 213.857†            82002.4      504.60 µg/L         0.274      504.60 ppb          0.274   0.05%
   QC value within limits for Zn 213.857  Recovery = 100.92%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/30/2010 17:42:27
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	149223.8	149223.8	101	%			17:42:56
1	Al 396.153Radial†	-56.0	7.4	1.5345	µg/L	1.5345	ppb	17:43:16
1	Ca 317.933Radial†	662.0	-42.2	-2.5368	µg/L	-2.5368	ppb	17:43:16
1	Fe 238.204 Radial†	154.9	12.8	0.8607	µg/L	0.8607	ppb	17:43:16
1	K 766.490 Radial†	1607.1	279.3	114.93	µg/L	114.93	ppb	17:42:56
1	Mg 279.077 IEC†	184.4	13.9	5.6942	µg/L	5.6942	ppb	17:43:16
1	Na 589.592 Radial†	1613.7	392.0	59.428	µg/L	59.428	ppb	17:42:56
1	Sr 421.552†	-96.8	125.8	0.2902	µg/L	0.2902	ppb	17:42:56
1	Sc 361.383	1740851.3	1740851.3	99.189	%			17:44:04
1	Y 371.029	1055585.6	1055585.6	99.205	%			17:44:04
1	Ag 328.068†	3751.0	334.6	1.3196	µg/L	1.3196	ppb	17:44:06
1	As 188.979†	-17.7	-0.1	-0.0475	µg/L	-0.0475	ppb	17:44:26
1	B 249.677†	3297.4	94.0	1.5332	µg/L	1.5332	ppb	17:44:26
1	Ba 233.527†	-135.0	26.1	0.1138	µg/L	0.1138	ppb	17:44:26
1	Be 313.107†	-465.5	316.3	0.0913	µg/L	0.0913	ppb	17:44:06
1	Cd 226.502†	-102.2	7.0	0.0477	µg/L	0.0477	ppb	17:44:26
1	Co 228.616†	-169.2	1.9	0.0256	µg/L	0.0256	ppb	17:44:26
1	Cr 267.716†	161.7	-15.5	-0.1210	µg/L	-0.1210	ppb	17:44:26
1	Cu 324.752†	2892.8	127.5	0.5274	µg/L	0.5274	ppb	17:44:06
1	Mn 257.610†	188.2	14.2	0.0187	µg/L	0.0187	ppb	17:44:26
1	Mo 202.031†	-34.7	-0.2	-0.0073	µg/L	-0.0073	ppb	17:44:26
1	Ni 231.604†	-81.0	-3.7	-0.0471	µg/L	-0.0471	ppb	17:44:26
1	P 214.914†	16.6	11.8	2.8139	µg/L	2.8139	ppb	17:44:26
1	Pb 220.353†	73.7	-22.7	-1.3818	µg/L	-1.3818	ppb	17:44:26
1	S 181.975 Axial†	92.6	5.7	4.6757	µg/L	4.6757	ppb	17:44:26
1	Sb 206.836†	88.1	10.7	1.4077	µg/L	1.4077	ppb	17:44:26
1	Se 196.026†	26.9	13.5	5.40	µg/L	5.40	ppb	17:44:26
1	SiO2†	1702.4	-36.8	-3.9566	µg/L	-3.9566	ppb	17:44:26
1	Si 251.611†	805.5	-136.5	-2.2166	µg/L	-2.2166	ppb	17:44:26
1	Sn 189.927†	12.1	14.8	1.0220	µg/L	1.0220	ppb	17:44:26
1	Ti 334.940†	782.8	-96.4	-0.0921	µg/L	-0.0921	ppb	17:44:06
1	Tl 190.801†	-109.4	6.8	0.9176	µg/L	0.9176	ppb	17:44:26
1	U 409.014†	-471.7	-191.8	-11.993	µg/L	-11.993	ppb	17:44:06
1	V 292.402†	376.2	69.5	0.3602	µg/L	0.3602	ppb	17:44:06
1	Zn 213.857†	507.0	-13.4	-0.0835	µg/L	-0.0835	ppb	17:44:26
2	Sc RADIAL	151236.2	151236.2	102	%			17:43:18
2	Al 396.153Radial†	-21.0	42.4	8.7168	µg/L	8.7168	ppb	17:43:38
2	Ca 317.933Radial†	653.0	-59.6	-3.5888	µg/L	-3.5888	ppb	17:43:38
2	Fe 238.204 Radial†	152.7	8.6	0.5778	µg/L	0.5778	ppb	17:43:38
2	K 766.490 Radial†	1413.4	68.8	28.307	µg/L	28.307	ppb	17:43:18
2	Mg 279.077 IEC†	159.0	-13.3	-5.4565	µg/L	-5.4565	ppb	17:43:38
2	Na 589.592 Radial†	1467.8	228.1	34.616	µg/L	34.616	ppb	17:43:18
2	Sr 421.552†	-229.5	-2.7	-0.0061	µg/L	-0.0061	ppb	17:43:18
2	Sc 361.383	1789733.9	1789733.9	101.97	%			17:44:28
2	Y 371.029	1083381.9	1083381.9	101.82	%			17:44:28
2	Ag 328.068†	3704.7	185.9	0.7594	µg/L	0.7594	ppb	17:44:30
2	As 188.979†	-20.5	-2.5	-0.8602	µg/L	-0.8602	ppb	17:44:51
2	B 249.677†	3265.6	-27.9	-0.4549	µg/L	-0.4549	ppb	17:44:51
2	Ba 233.527†	-147.6	17.4	0.0763	µg/L	0.0763	ppb	17:44:51
2	Be 313.107†	-589.1	207.9	0.0663	µg/L	0.0663	ppb	17:44:30
2	Cd 226.502†	-88.1	23.7	0.1626	µg/L	0.1626	ppb	17:44:51
2	Co 228.616†	-190.6	-14.5	-0.1957	µg/L	-0.1957	ppb	17:44:51
2	Cr 267.716†	149.7	-31.7	-0.2772	µg/L	-0.2772	ppb	17:44:51
2	Cu 324.752†	2754.5	-87.8	-0.3595	µg/L	-0.3595	ppb	17:44:30
2	Mn 257.610†	189.1	9.9	0.0134	µg/L	0.0134	ppb	17:44:51
2	Mo 202.031†	-22.2	13.0	0.4125	µg/L	0.4125	ppb	17:44:51
2	Ni 231.604†	-63.7	15.4	0.1938	µg/L	0.1938	ppb	17:44:51
2	P 214.914†	14.2	9.0	2.1371	µg/L	2.1371	ppb	17:44:51
2	Pb 220.353†	93.1	-5.6	-0.3521	µg/L	-0.3521	ppb	17:44:51

2	S 181.975 Axial†	103.3	13.6	11.162 µg/L	11.162 ppb	17:44:51
2	Sb 206.836†	65.2	-14.2	-1.8489 µg/L	-1.8489 ppb	17:44:51
2	Se 196.026†	14.8	1.0	0.409 µg/L	0.409 ppb	17:44:51
2	SiO2†	1667.3	-118.1	-12.646 µg/L	-12.646 ppb	17:44:51
2	Si 251.611†	773.3	-190.4	-3.0841 µg/L	-3.0841 ppb	17:44:51
2	Sn 189.927†	-8.6	-5.9	-0.4098 µg/L	-0.4098 ppb	17:44:51
2	Ti 334.940†	770.5	-130.0	-0.1350 µg/L	-0.1350 ppb	17:44:30
2	Tl 190.801†	-116.4	2.9	0.3948 µg/L	0.3948 ppb	17:44:51
2	U 409.014†	-81.5	203.9	12.791 µg/L	12.791 ppb	17:44:30
2	V 292.402†	391.1	73.7	0.4028 µg/L	0.4028 ppb	17:44:30
2	Zn 213.857†	509.1	-25.3	-0.1579 µg/L	-0.1579 ppb	17:44:51
3	Sc RADIAL	153128.4	153128.4	104 %		17:43:40
3	Al 396.153Radial†	-66.6	-1.4	-0.2868 µg/L	-0.2868 ppb	17:44:00
3	Ca 317.933Radial†	663.9	-57.1	-3.4340 µg/L	-3.4340 ppb	17:44:00
3	Fe 238.204 Radial†	162.3	15.9	1.0724 µg/L	1.0724 ppb	17:44:00
3	K 766.490 Radial†	1397.3	36.1	14.869 µg/L	14.869 ppb	17:43:40
3	Mg 279.077 IEC†	188.4	13.1	5.3774 µg/L	5.3774 ppb	17:44:00
3	Na 589.592 Radial†	1362.5	108.7	16.495 µg/L	16.495 ppb	17:43:40
3	Sr 421.552†	-427.6	-191.1	-0.4409 µg/L	-0.4409 ppb	17:43:40
3	Sc 361.383	1735204.4	1735204.4	98.868 %		17:44:53
3	Y 371.029	1051337.1	1051337.1	98.806 %		17:44:53
3	Ag 328.068†	3394.5	-13.7	-0.0762 µg/L	-0.0762 ppb	17:44:55
3	As 188.979†	-6.8	10.8	3.7567 µg/L	3.7567 ppb	17:45:15
3	B 249.677†	3250.6	57.4	0.9360 µg/L	0.9360 ppb	17:45:15
3	Ba 233.527†	-155.9	4.5	0.0193 µg/L	0.0193 ppb	17:45:15
3	Be 313.107†	-860.6	-84.9	-0.0295 µg/L	-0.0295 ppb	17:44:55
3	Cd 226.502†	-85.7	23.3	0.1600 µg/L	0.1600 ppb	17:45:15
3	Co 228.616†	-156.5	14.1	0.1911 µg/L	0.1911 ppb	17:45:15
3	Cr 267.716†	170.5	-6.1	-0.0410 µg/L	-0.0410 ppb	17:45:15
3	Cu 324.752†	2758.1	0.7	-0.0075 µg/L	-0.0075 ppb	17:44:55
3	Mn 257.610†	168.3	-5.4	-0.0074 µg/L	-0.0074 ppb	17:45:15
3	Mo 202.031†	-34.1	0.3	0.0091 µg/L	0.0091 ppb	17:45:15
3	Ni 231.604†	-62.8	14.3	0.1804 µg/L	0.1804 ppb	17:45:15
3	P 214.914†	9.9	5.0	1.2075 µg/L	1.2075 ppb	17:45:15
3	Pb 220.353†	88.3	-7.7	-0.4611 µg/L	-0.4611 ppb	17:45:15
3	S 181.975 Axial†	91.9	5.3	4.3277 µg/L	4.3277 ppb	17:45:15
3	Sb 206.836†	76.8	-0.4	-0.0552 µg/L	-0.0552 ppb	17:45:15
3	Se 196.026†	9.6	-3.8	-1.55 µg/L	-1.55 ppb	17:45:15
3	SiO2†	1679.3	-54.6	-5.8537 µg/L	-5.8537 ppb	17:45:15
3	Si 251.611†	744.3	-195.8	-3.1739 µg/L	-3.1739 ppb	17:45:15
3	Sn 189.927†	6.5	9.2	0.6338 µg/L	0.6338 ppb	17:45:15
3	Ti 334.940†	819.1	-57.1	-0.0523 µg/L	-0.0523 ppb	17:44:55
3	Tl 190.801†	-108.9	6.9	0.9222 µg/L	0.9222 ppb	17:45:15
3	U 409.014†	-490.6	-212.5	-13.335 µg/L	-13.335 ppb	17:44:55
3	V 292.402†	223.9	-83.4	-0.4518 µg/L	-0.4518 ppb	17:44:55
3	Zn 213.857†	524.3	5.7	0.0343 µg/L	0.0343 ppb	17:45:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755263.2	100.01	%	1.709				1.71%
Sc RADIAL	151196.1	102	%	1.3				1.29%
Y 371.029	1063434.8	99.943	%	1.6357				1.64%
Ag 328.068†	168.9	0.6676	µg/L	0.70241	0.6676	ppb	0.70241	105.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.1	3.3215	µg/L	4.76035	3.3215	ppb	4.76035	143.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.7	0.9497	µg/L	2.46469	0.9497	ppb	2.46469	259.52%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.2	0.6714	µg/L	1.02013	0.6714	ppb	1.02013	151.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.0	0.0698	µg/L	0.04762	0.0698	ppb	0.04762	68.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	146.5	0.0427	µg/L	0.06375	0.0427	ppb	0.06375	149.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-53.0	-3.1865	µg/L	0.56796	-3.1865	ppb	0.56796	17.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	18.0	0.1234	µg/L	0.06561	0.1234	ppb	0.06561	53.17%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.5	0.0070	µg/L	0.19406	0.0070	ppb	0.19406	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.8     -0.1464 µg/L       0.12014     -0.1464 ppb        0.12014  82.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               13.5      0.0535 µg/L       0.44662      0.0535 ppb        0.44662 835.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        12.4      0.8369 µg/L       0.24815      0.8369 ppb        0.24815  29.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        128.1      52.703 µg/L       54.3096      52.703 ppb        54.3096 103.05%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.6       1.8717 µg/L       6.34837      1.8717 ppb        6.34837 339.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.2       0.0082 µg/L       0.01382      0.0082 ppb        0.01382 167.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.3       0.1381 µg/L       0.23777      0.1381 ppb        0.23777 172.20%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       243.0      36.846 µg/L       21.5535      36.846 ppb        21.5535  58.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.7       0.1090 µg/L       0.13543      0.1090 ppb        0.13543 124.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                8.6       2.0528 µg/L       0.80647      2.0528 ppb        0.80647  39.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.0      -0.7317 µg/L       0.56567     -0.7317 ppb        0.56567  77.31%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.2       6.7217 µg/L       3.84909      6.7217 ppb        3.84909  57.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.3      -0.1655 µg/L       1.63108     -0.1655 ppb        1.63108 985.78%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.6         1.42 µg/L         3.583        1.42 ppb          3.583 252.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -69.9      -7.4854 µg/L       4.56863     -7.4854 ppb        4.56863  61.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -174.2      -2.8248 µg/L       0.52869     -2.8248 ppb        0.52869  18.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.0       0.4153 µg/L       0.74044      0.4153 ppb        0.74044 178.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.7      -0.0523 µg/L       0.36773     -0.0523 ppb        0.36773 703.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -94.5      -0.0932 µg/L       0.04138     -0.0932 ppb        0.04138  44.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5       0.7449 µg/L       0.30318      0.7449 ppb        0.30318  40.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -66.8      -4.1790 µg/L      14.71171     -4.1790 ppb       14.71171 352.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                19.9       0.1037 µg/L       0.48160      0.1037 ppb        0.48160 464.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -11.0      -0.0690 µg/L       0.09694     -0.0690 ppb        0.09694 140.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: 248518001|962580|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 151
Date Collected: 3/30/2010 17:51:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248518001|962580|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148645.9	148645.9	101	%			17:52:15
1	Al 396.153Radial†	75.9	138.4	28.504	µg/L	28.504	ppb	17:52:35
1	Ca 317.933Radial†	1164.1	459.7	27.658	µg/L	27.658	ppb	17:52:35
1	Fe 238.204 Radial†	453.8	310.6	20.899	µg/L	20.899	ppb	17:52:35
1	K 766.490 Radial†	1927.1	603.7	248.43	µg/L	248.43	ppb	17:52:15
1	Mg 279.077 IEC†	217.2	47.2	19.338	µg/L	19.338	ppb	17:52:35
1	Na 589.592 Radial†	2739.2	1517.5	230.21	µg/L	230.21	ppb	17:52:15
1	Sr 421.552†	-89.5	132.7	0.3059	µg/L	0.3059	ppb	17:52:15
1	Sc 361.383	1732930.9	1732930.9	98.738	%			17:53:37
1	Y 371.029	1045589.8	1045589.8	98.266	%			17:53:37
1	Ag 328.068†	3786.4	387.7	1.5254	µg/L	1.5254	ppb	17:53:39
1	As 188.979†	-21.1	-3.7	-1.2953	µg/L	-1.2953	ppb	17:53:59
1	B 249.677†	4637.1	1466.0	23.903	µg/L	23.903	ppb	17:53:39
1	Ba 233.527†	-115.1	45.5	0.1982	µg/L	0.1982	ppb	17:53:59
1	Be 313.107†	-499.0	280.2	0.0801	µg/L	0.0801	ppb	17:53:39
1	Cd 226.502†	-105.7	3.0	0.0185	µg/L	0.0185	ppb	17:53:59
1	Co 228.616†	-175.5	-5.4	-0.0733	µg/L	-0.0733	ppb	17:53:59
1	Cr 267.716†	187.7	11.6	0.1080	µg/L	0.1080	ppb	17:53:59
1	Cu 324.752†	2914.4	162.7	0.6782	µg/L	0.6782	ppb	17:53:39
1	Mn 257.610†	916.4	752.5	1.0050	µg/L	1.0050	ppb	17:53:59
1	Mo 202.031†	-28.6	5.8	0.1850	µg/L	0.1850	ppb	17:53:59
1	Ni 231.604†	-64.2	12.9	0.1623	µg/L	0.1623	ppb	17:53:59
1	P 214.914†	7.2	2.3	0.5296	µg/L	0.5296	ppb	17:53:59
1	Pb 220.353†	115.6	20.2	1.2456	µg/L	1.2456	ppb	17:53:59
1	S 181.975 Axial†	113.6	27.3	22.414	µg/L	22.414	ppb	17:53:59
1	Sb 206.836†	81.5	4.5	0.5917	µg/L	0.5917	ppb	17:53:59
1	Se 196.026†	18.1	4.8	1.90	µg/L	1.90	ppb	17:53:59
1	SiO2†	30744.9	29384.7	3143.7	µg/L	3143.7	ppb	17:53:39
1	Si 251.611†	90545.9	90754.4	1469.0	µg/L	1469.0	ppb	17:53:39
1	Sn 189.927†	6.5	9.1	0.6330	µg/L	0.6330	ppb	17:53:59
1	Ti 334.940†	1489.5	622.9	0.6285	µg/L	0.6285	ppb	17:53:39
1	Tl 190.801†	-120.5	-4.9	-0.6501	µg/L	-0.6501	ppb	17:53:59
1	U 409.014†	-487.3	-209.8	-13.128	µg/L	-13.128	ppb	17:53:39
1	V 292.402†	331.5	25.9	0.1282	µg/L	0.1282	ppb	17:53:39
1	Zn 213.857†	693.3	177.6	1.0981	µg/L	1.0981	ppb	17:53:59
2	Sc RADIAL	147554.8	147554.8	99.8	%			17:52:37
2	Al 396.153Radial†	67.2	130.2	26.850	µg/L	26.850	ppb	17:52:57
2	Ca 317.933Radial†	1202.4	506.6	30.483	µg/L	30.483	ppb	17:52:57
2	Fe 238.204 Radial†	440.9	301.0	20.257	µg/L	20.257	ppb	17:52:57
2	K 766.490 Radial†	1949.4	640.2	263.44	µg/L	263.44	ppb	17:52:37
2	Mg 279.077 IEC†	216.8	48.4	19.834	µg/L	19.834	ppb	17:52:57
2	Na 589.592 Radial†	2811.2	1609.8	244.21	µg/L	244.21	ppb	17:52:37
2	Sr 421.552†	-23.2	198.4	0.4574	µg/L	0.4574	ppb	17:52:37
2	Sc 361.383	1743520.1	1743520.1	99.341	%			17:54:01
2	Y 371.029	1051316.0	1051316.0	98.804	%			17:54:01
2	Ag 328.068†	3580.1	156.7	0.6150	µg/L	0.6150	ppb	17:54:03
2	As 188.979†	-12.5	5.1	1.7787	µg/L	1.7787	ppb	17:54:23
2	B 249.677†	4696.6	1497.4	24.414	µg/L	24.414	ppb	17:54:03
2	Ba 233.527†	-67.2	94.5	0.4110	µg/L	0.4110	ppb	17:54:23
2	Be 313.107†	-737.4	43.3	0.0122	µg/L	0.0122	ppb	17:54:03
2	Cd 226.502†	-103.1	6.3	0.0412	µg/L	0.0412	ppb	17:54:23
2	Co 228.616†	-153.6	17.8	0.2397	µg/L	0.2397	ppb	17:54:23
2	Cr 267.716†	188.5	11.2	0.0964	µg/L	0.0964	ppb	17:54:23
2	Cu 324.752†	2825.0	54.8	0.2324	µg/L	0.2324	ppb	17:54:03
2	Mn 257.610†	893.6	723.9	0.9667	µg/L	0.9667	ppb	17:54:23
2	Mo 202.031†	-46.1	-11.7	-0.3707	µg/L	-0.3707	ppb	17:54:23
2	Ni 231.604†	-48.2	29.4	0.3700	µg/L	0.3700	ppb	17:54:23
2	P 214.914†	42.8	38.1	9.0843	µg/L	9.0843	ppb	17:54:23
2	Pb 220.353†	110.6	14.4	0.8819	µg/L	0.8819	ppb	17:54:23

2	S 181.975 Axial†	110.2	23.2	19.026 µg/L	19.026 ppb	17:54:23
2	Sb 206.836†	67.7	-9.9	-1.3051 µg/L	-1.3051 ppb	17:54:23
2	Se 196.026†	10.8	-2.7	-1.09 µg/L	-1.09 ppb	17:54:23
2	SiO2†	30359.5	28807.6	3082.0 µg/L	3082.0 ppb	17:54:03
2	Si 251.611†	89731.3	89377.4	1446.7 µg/L	1446.7 ppb	17:54:03
2	Sn 189.927†	-9.2	-6.7	-0.4653 µg/L	-0.4653 ppb	17:54:23
2	Ti 334.940†	1228.3	350.8	0.3517 µg/L	0.3517 ppb	17:54:03
2	Tl 190.801†	-124.1	-7.9	-1.0531 µg/L	-1.0531 ppb	17:54:23
2	U 409.014†	-321.8	-40.2	-2.5331 µg/L	-2.5331 ppb	17:54:03
2	V 292.402†	250.8	-57.3	-0.3120 µg/L	-0.3120 ppb	17:54:03
2	Zn 213.857†	683.9	163.9	1.0121 µg/L	1.0121 ppb	17:54:23
3	Sc RADIAL	149913.6	149913.6	101 %		17:52:59
3	Al 396.153Radial†	87.2	148.9	30.680 µg/L	30.680 ppb	17:53:19
3	Ca 317.933Radial†	1173.4	459.1	27.625 µg/L	27.625 ppb	17:53:19
3	Fe 238.204 Radial†	423.3	276.7	18.621 µg/L	18.621 ppb	17:53:19
3	K 766.490 Radial†	1850.1	511.6	210.51 µg/L	210.51 ppb	17:52:59
3	Mg 279.077 IEC†	201.9	30.3	12.433 µg/L	12.433 ppb	17:53:19
3	Na 589.592 Radial†	2824.4	1578.5	239.50 µg/L	239.50 ppb	17:52:59
3	Sr 421.552†	-224.6	0.2	0.0001 µg/L	0.0001 ppb	17:52:59
3	Sc 361.383	1749602.2	1749602.2	99.688 %		17:54:25
3	Y 371.029	1055492.1	1055492.1	99.196 %		17:54:25
3	Ag 328.068†	3233.5	-203.5	-0.8068 µg/L	-0.8068 ppb	17:54:28
3	As 188.979†	-19.4	-1.8	-0.6139 µg/L	-0.6139 ppb	17:54:48
3	B 249.677†	4551.8	1335.7	21.778 µg/L	21.778 ppb	17:54:28
3	Ba 233.527†	-59.9	102.1	0.4442 µg/L	0.4442 ppb	17:54:48
3	Be 313.107†	-469.1	315.0	0.0952 µg/L	0.0952 ppb	17:54:28
3	Cd 226.502†	-84.7	25.1	0.1704 µg/L	0.1704 ppb	17:54:48
3	Co 228.616†	-190.4	-18.6	-0.2516 µg/L	-0.2516 ppb	17:54:48
3	Cr 267.716†	196.2	18.3	0.1525 µg/L	0.1525 ppb	17:54:48
3	Cu 324.752†	2831.1	51.0	0.2197 µg/L	0.2197 ppb	17:54:28
3	Mn 257.610†	895.2	722.4	0.9651 µg/L	0.9651 ppb	17:54:48
3	Mo 202.031†	-35.6	-0.9	-0.0289 µg/L	-0.0289 ppb	17:54:48
3	Ni 231.604†	-71.2	6.5	0.0819 µg/L	0.0819 ppb	17:54:48
3	P 214.914†	60.4	55.6	13.254 µg/L	13.254 ppb	17:54:48
3	Pb 220.353†	119.4	22.8	1.3945 µg/L	1.3945 ppb	17:54:48
3	S 181.975 Axial†	109.9	22.6	18.502 µg/L	18.502 ppb	17:54:48
3	Sb 206.836†	74.1	-3.7	-0.4904 µg/L	-0.4904 ppb	17:54:48
3	Se 196.026†	34.7	21.3	8.51 µg/L	8.51 ppb	17:54:48
3	SiO2†	29981.0	28321.6	3030.0 µg/L	3030.0 ppb	17:54:28
3	Si 251.611†	87877.2	87203.6	1411.5 µg/L	1411.5 ppb	17:54:28
3	Sn 189.927†	0.1	2.6	0.1851 µg/L	0.1851 ppb	17:54:48
3	Ti 334.940†	1546.0	665.3	0.6653 µg/L	0.6653 ppb	17:54:28
3	Tl 190.801†	-124.2	-7.5	-0.9970 µg/L	-0.9970 ppb	17:54:48
3	U 409.014†	-248.6	34.4	2.1598 µg/L	2.1598 ppb	17:54:28
3	V 292.402†	314.3	5.4	0.0281 µg/L	0.0281 ppb	17:54:28
3	Zn 213.857†	688.2	165.8	1.0265 µg/L	1.0265 ppb	17:54:48

Mean Data: 248518001|962580|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742017.7	99.256	%	0.4807				0.48%
Sc RADIAL	148704.7	101	%	0.8				0.79%
Y 371.029	1050799.3	98.755	%	0.4672				0.47%
Ag 328.068†	113.7	0.4445	µg/L	1.17541	0.4445	ppb	1.17541	264.41%
Al 396.153Radial†	139.1	28.678	µg/L	1.9213	28.678	ppb	1.9213	6.70%
As 188.979†	-0.1	-0.0435	µg/L	1.61439	-0.0435	ppb	1.61439	>999.9%
B 249.677†	1433.1	23.365	µg/L	1.3977	23.365	ppb	1.3977	5.98%
Ba 233.527†	80.7	0.3511	µg/L	0.13351	0.3511	ppb	0.13351	38.02%
Be 313.107†	212.9	0.0625	µg/L	0.04419	0.0625	ppb	0.04419	70.68%
Ca 317.933Radial†	475.1	28.589	µg/L	1.6405	28.589	ppb	1.6405	5.74%
Cd 226.502†	11.5	0.0767	µg/L	0.08195	0.0767	ppb	0.08195	106.80%
Co 228.616†	-2.0	-0.0284	µg/L	0.24870	-0.0284	ppb	0.24870	875.98%
Cr 267.716†	13.7	0.1190	µg/L	0.02961	0.1190	ppb	0.02961	24.89%
Cu 324.752†	89.5	0.3768	µg/L	0.26114	0.3768	ppb	0.26114	69.31%
Fe 238.204 Radial†	296.1	19.926	µg/L	1.1746	19.926	ppb	1.1746	5.89%
K 766.490 Radial†	585.2	240.79	µg/L	27.280	240.79	ppb	27.280	11.33%
Mg 279.077 IEC†	42.0	17.202	µg/L	4.1375	17.202	ppb	4.1375	24.05%
Mn 257.610†	733.0	0.9789	µg/L	0.02260	0.9789	ppb	0.02260	2.31%
Mo 202.031†	-2.3	-0.0715	µg/L	0.28029	-0.0715	ppb	0.28029	391.80%
Na 589.592 Radial†	1568.6	237.97	µg/L	7.126	237.97	ppb	7.126	2.99%

Ni 231.604†	16.3	0.2047 µg/L	0.14867	0.2047 ppb	0.14867	72.62%
P 214.914†	32.0	7.6227 µg/L	6.48692	7.6227 ppb	6.48692	85.10%
Pb 220.353†	19.1	1.1740 µg/L	0.26370	1.1740 ppb	0.26370	22.46%
S 181.975 Axial†	24.4	19.981 µg/L	2.1235	19.981 ppb	2.1235	10.63%
Sb 206.836†	-3.0	-0.4012 µg/L	0.95154	-0.4012 ppb	0.95154	237.15%
Se 196.026†	7.8	3.11 µg/L	4.916	3.11 ppb	4.916	158.18%
SiO2†	28838.0	3085.2 µg/L	56.93	3085.2 ppb	56.93	1.85%
Si 251.611†	89111.8	1442.4 µg/L	28.98	1442.4 ppb	28.98	2.01%
Sn 189.927†	1.7	0.1176 µg/L	0.55228	0.1176 ppb	0.55228	469.67%
Sr 421.552†	110.4	0.2545 µg/L	0.23294	0.2545 ppb	0.23294	91.54%
Ti 334.940†	546.4	0.5485 µg/L	0.17145	0.5485 ppb	0.17145	31.26%
Tl 190.801†	-6.8	-0.9001 µg/L	0.21831	-0.9001 ppb	0.21831	24.25%
U 409.014†	-71.9	-4.5004 µg/L	7.83134	-4.5004 ppb	7.83134	174.02%
V 292.402†	-8.7	-0.0519 µg/L	0.23074	-0.0519 ppb	0.23074	444.62%
Zn 213.857†	169.1	1.0456 µg/L	0.04607	1.0456 ppb	0.04607	4.41%

Sequence No.: 24 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/30/2010 18:00:22**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149963.6	149963.6	101	%			18:00:56
1	Al 396.153Radial†	25208.6	24912.8	5110.3	µg/L	5110.3	ppb	18:00:56
1	Ca 317.933Radial†	86326.3	84400.0	5078.1	µg/L	5078.1	ppb	18:00:56
1	Fe 238.204 Radial†	76400.5	75172.7	5058.3	µg/L	5058.3	ppb	18:00:56
1	K 766.490 Radial†	13741.6	12233.3	5030.6	µg/L	5030.6	ppb	18:00:56
1	Mg 279.077 IEC†	12974.7	12621.3	5185.5	µg/L	5185.5	ppb	18:00:56
1	Na 589.592 Radial†	68473.2	66292.3	10062	µg/L	10062	ppb	18:00:56
1	Sr 421.552†	223153.6	220200.1	507.93	µg/L	507.93	ppb	18:00:54
1	Sc 361.383	1727309.1	1727309.1	98.418	%			18:01:08
1	Y 371.029	1034162.5	1034162.5	97.192	%			18:01:08
1	Ag 328.068†	127504.0	126106.7	507.56	µg/L	507.56	ppb	18:01:08
1	As 188.979†	1389.4	1429.4	506.06	µg/L	506.06	ppb	18:01:29
1	B 249.677†	33211.6	30515.2	495.77	µg/L	495.77	ppb	18:01:08
1	Ba 233.527†	113569.1	115556.9	503.56	µg/L	503.56	ppb	18:01:08
1	Be 313.107†	1649297.9	1676597.6	503.31	µg/L	503.31	ppb	18:01:08
1	Cd 226.502†	71908.8	73174.8	502.13	µg/L	502.13	ppb	18:01:08
1	Co 228.616†	36707.5	37470.0	507.04	µg/L	507.04	ppb	18:01:08
1	Cr 267.716†	58723.3	59488.8	501.11	µg/L	501.11	ppb	18:01:08
1	Cu 324.752†	119828.4	118965.8	502.87	µg/L	502.87	ppb	18:01:08
1	Mn 257.610†	371619.2	377417.8	504.24	µg/L	504.24	ppb	18:01:08
1	Mo 202.031†	15635.4	15921.5	506.91	µg/L	506.91	ppb	18:01:29
1	Ni 231.604†	39521.0	40234.3	506.06	µg/L	506.06	ppb	18:01:08
1	P 214.914†	10443.9	10606.8	2521.3	µg/L	2521.3	ppb	18:01:29
1	Pb 220.353†	8236.3	8271.7	508.08	µg/L	508.08	ppb	18:01:29
1	S 181.975 Axial†	1305.1	1238.3	1019.4	µg/L	1019.4	ppb	18:01:29
1	Sb 206.836†	3867.4	3851.5	506.23	µg/L	506.23	ppb	18:01:29
1	Se 196.026†	1260.5	1267.2	509	µg/L	509	ppb	18:01:29
1	SiO2†	51213.3	50283.5	5357.8	µg/L	5357.8	ppb	18:01:08
1	Si 251.611†	154028.3	155555.8	2507.8	µg/L	2507.8	ppb	18:01:08
1	Sn 189.927†	7184.1	7302.2	507.24	µg/L	507.24	ppb	18:01:29
1	Ti 334.940†	495803.0	502887.9	503.16	µg/L	503.16	ppb	18:01:08
1	Tl 190.801†	3592.4	3767.2	513.82	µg/L	513.82	ppb	18:01:29
1	U 409.014†	7260.0	7660.4	510.36	µg/L	510.36	ppb	18:01:08
1	V 292.402†	93039.1	94225.0	506.98	µg/L	506.98	ppb	18:01:08
1	Zn 213.857†	80748.7	81522.2	501.64	µg/L	501.64	ppb	18:01:08
2	Sc RADIAL	150679.1	150679.1	102	%			18:01:00
2	Al 396.153Radial†	25393.4	24976.1	5123.3	µg/L	5123.3	ppb	18:01:00
2	Ca 317.933Radial†	87448.3	85096.7	5120.1	µg/L	5120.1	ppb	18:01:00
2	Fe 238.204 Radial†	77162.3	75562.5	5084.5	µg/L	5084.5	ppb	18:01:00
2	K 766.490 Radial†	14059.0	12480.3	5132.3	µg/L	5132.3	ppb	18:01:00
2	Mg 279.077 IEC†	13106.1	12689.5	5213.5	µg/L	5213.5	ppb	18:01:00
2	Na 589.592 Radial†	69122.9	66609.2	10110	µg/L	10110	ppb	18:01:00
2	Sr 421.552†	224776.0	220747.3	509.19	µg/L	509.19	ppb	18:00:58
2	Sc 361.383	1719911.6	1719911.6	97.996	%			18:01:32
2	Y 371.029	1029896.4	1029896.4	96.791	%			18:01:32
2	Ag 328.068†	126855.3	126002.0	507.13	µg/L	507.13	ppb	18:01:32
2	As 188.979†	1392.6	1438.8	509.32	µg/L	509.32	ppb	18:01:52
2	B 249.677†	33255.8	30705.4	498.87	µg/L	498.87	ppb	18:01:32
2	Ba 233.527†	112718.1	115184.9	501.94	µg/L	501.94	ppb	18:01:32
2	Be 313.107†	1638841.3	1673135.1	502.27	µg/L	502.27	ppb	18:01:32
2	Cd 226.502†	71582.0	73155.7	501.99	µg/L	501.99	ppb	18:01:32
2	Co 228.616†	36493.4	37412.0	506.26	µg/L	506.26	ppb	18:01:32
2	Cr 267.716†	58378.6	59393.7	500.31	µg/L	500.31	ppb	18:01:32
2	Cu 324.752†	118925.8	118568.4	501.20	µg/L	501.20	ppb	18:01:32
2	Mn 257.610†	369553.2	376933.6	503.60	µg/L	503.60	ppb	18:01:32
2	Mo 202.031†	15590.5	15944.0	507.63	µg/L	507.63	ppb	18:01:52
2	Ni 231.604†	39259.9	40140.5	504.88	µg/L	504.88	ppb	18:01:32
2	P 214.914†	10376.2	10583.3	2515.7	µg/L	2515.7	ppb	18:01:52
2	Pb 220.353†	8224.0	8295.2	509.52	µg/L	509.52	ppb	18:01:52

2	S 181.975 Axial†	1280.5	1219.0	1003.5 µg/L	1003.5 ppb	18:01:52
2	Sb 206.836†	3875.7	3876.8	509.58 µg/L	509.58 ppb	18:01:52
2	Se 196.026†	1257.5	1269.6	510 µg/L	510 ppb	18:01:52
2	SiO2†	50739.1	50023.4	5330.0 µg/L	5330.0 ppb	18:01:32
2	Si 251.611†	152955.9	155134.6	2500.9 µg/L	2500.9 ppb	18:01:32
2	Sn 189.927†	7173.1	7322.3	508.62 µg/L	508.62 ppb	18:01:52
2	Ti 334.940†	492455.2	501638.5	501.91 µg/L	501.91 ppb	18:01:32
2	Tl 190.801†	3592.4	3782.9	515.92 µg/L	515.92 ppb	18:01:52
2	U 409.014†	7198.4	7629.3	508.35 µg/L	508.35 ppb	18:01:32
2	V 292.402†	92465.3	94046.0	506.03 µg/L	506.03 ppb	18:01:32
2	Zn 213.857†	80075.4	81188.1	499.57 µg/L	499.57 ppb	18:01:32
3	Sc RADIAL	150459.0	150459.0	102 %		18:01:04
3	Al 396.153Radial†	25239.2	24861.0	5099.8 µg/L	5099.8 ppb	18:01:04
3	Ca 317.933Radial†	86610.0	84398.5	5078.1 µg/L	5078.1 ppb	18:01:04
3	Fe 238.204 Radial†	76232.2	74759.3	5030.5 µg/L	5030.5 ppb	18:01:04
3	K 766.490 Radial†	14112.6	12553.2	5162.3 µg/L	5162.3 ppb	18:01:04
3	Mg 279.077 IEC†	12790.6	12398.3	5094.0 µg/L	5094.0 ppb	18:01:04
3	Na 589.592 Radial†	68460.4	66057.5	10026 µg/L	10026 ppb	18:01:04
3	Sr 421.552†	225258.6	221544.0	511.03 µg/L	511.03 ppb	18:01:02
3	Sc 361.383	1747302.6	1747302.6	99.557 %		18:01:55
3	Y 371.029	1046057.1	1046057.1	98.310 %		18:01:55
3	Ag 328.068†	127799.7	124921.3	502.82 µg/L	502.82 ppb	18:01:55
3	As 188.979†	1396.1	1420.0	502.76 µg/L	502.76 ppb	18:02:15
3	B 249.677†	33651.3	30570.7	496.68 µg/L	496.68 ppb	18:01:55
3	Ba 233.527†	114681.4	115353.8	502.68 µg/L	502.68 ppb	18:01:55
3	Be 313.107†	1666731.4	1674933.2	502.81 µg/L	502.81 ppb	18:01:55
3	Cd 226.502†	72567.6	73000.5	500.93 µg/L	500.93 ppb	18:01:55
3	Co 228.616†	36961.9	37298.8	504.73 µg/L	504.73 ppb	18:01:55
3	Cr 267.716†	59318.7	59404.1	500.39 µg/L	500.39 ppb	18:01:55
3	Cu 324.752†	120890.6	118639.6	501.49 µg/L	501.49 ppb	18:01:55
3	Mn 257.610†	374818.4	376310.6	502.77 µg/L	502.77 ppb	18:01:55
3	Mo 202.031†	15682.2	15786.7	502.62 µg/L	502.62 ppb	18:02:15
3	Ni 231.604†	39775.3	40030.2	503.49 µg/L	503.49 ppb	18:01:55
3	P 214.914†	10469.8	10511.4	2498.6 µg/L	2498.6 ppb	18:02:15
3	Pb 220.353†	8305.7	8245.7	506.48 µg/L	506.48 ppb	18:02:15
3	S 181.975 Axial†	1304.1	1222.2	1006.1 µg/L	1006.1 ppb	18:02:15
3	Sb 206.836†	3884.1	3823.3	502.48 µg/L	502.48 ppb	18:02:15
3	Se 196.026†	1277.7	1269.8	511 µg/L	511 ppb	18:02:15
3	SiO2†	51665.7	50142.4	5342.9 µg/L	5342.9 ppb	18:01:55
3	Si 251.611†	155152.4	154894.1	2497.1 µg/L	2497.1 ppb	18:01:55
3	Sn 189.927†	7193.0	7227.5	502.07 µg/L	502.07 ppb	18:02:15
3	Ti 334.940†	500401.0	501742.0	502.02 µg/L	502.02 ppb	18:01:55
3	Tl 190.801†	3619.4	3752.6	511.84 µg/L	511.84 ppb	18:02:15
3	U 409.014†	7325.0	7641.3	509.04 µg/L	509.04 ppb	18:01:55
3	V 292.402†	93720.4	93827.6	504.83 µg/L	504.83 ppb	18:01:55
3	Zn 213.857†	81318.5	81155.7	499.38 µg/L	499.38 ppb	18:01:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1731507.8	98.657	%	0.8074				0.82%
Sc RADIAL	150367.2	102	%	0.2				0.24%
Y 371.029	1036705.4	97.431	%	0.7871				0.81%
Ag 328.068†	125676.6	505.84	µg/L	2.620	505.84	ppb	2.620	0.52%
QC value within limits for Ag 328.068 Recovery = 101.17%								
Al 396.153Radial†	24916.6	5111.1	µg/L	11.77	5111.1	ppb	11.77	0.23%
QC value within limits for Al 396.153Radial Recovery = 102.22%								
As 188.979†	1429.4	506.05	µg/L	3.279	506.05	ppb	3.279	0.65%
QC value within limits for As 188.979 Recovery = 101.21%								
B 249.677†	30597.1	497.11	µg/L	1.595	497.11	ppb	1.595	0.32%
QC value within limits for B 249.677 Recovery = 99.42%								
Ba 233.527†	115365.2	502.73	µg/L	0.812	502.73	ppb	0.812	0.16%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	1674888.6	502.79	µg/L	0.520	502.79	ppb	0.520	0.10%
QC value within limits for Be 313.107 Recovery = 100.56%								
Ca 317.933Radial†	84631.7	5092.1	µg/L	24.23	5092.1	ppb	24.23	0.48%
QC value within limits for Ca 317.933Radial Recovery = 101.84%								
Cd 226.502†	73110.3	501.68	µg/L	0.654	501.68	ppb	0.654	0.13%
QC value within limits for Cd 226.502 Recovery = 100.34%								
Co 228.616†	37393.6	506.01	µg/L	1.177	506.01	ppb	1.177	0.23%

```
   QC value within limits for Co 228.616  Recovery = 101.20%
Cr 267.716†            59428.9      500.60 µg/L         0.439      500.60 ppb          0.439   0.09%
   QC value within limits for Cr 267.716  Recovery = 100.12%
Cu 324.752†           118724.6      501.85 µg/L         0.894      501.85 ppb          0.894   0.18%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†     75164.8      5057.7 µg/L         27.03      5057.7 ppb          27.03   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.15%
K 766.490 Radial†      12422.3      5108.4 µg/L         69.01      5108.4 ppb          69.01   1.35%
   QC value within limits for K 766.490 Radial  Recovery = 102.17%
Mg 279.077 IEC†        12569.7      5164.3 µg/L         62.53      5164.3 ppb          62.53   1.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.29%
Mn 257.610†           376887.3      503.54 µg/L         0.740      503.54 ppb          0.740   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.71%
Mo 202.031†            15884.1      505.72 µg/L         2.708      505.72 ppb          2.708   0.54%
   QC value within limits for Mo 202.031  Recovery = 101.14%
Na 589.592 Radial†     66319.7       10066 µg/L          42.1       10066 ppb           42.1   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 100.66%
Ni 231.604†            40135.0      504.81 µg/L         1.285      504.81 ppb          1.285   0.25%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             10567.2      2511.9 µg/L         11.84      2511.9 ppb          11.84   0.47%
   QC value within limits for P 214.914  Recovery = 100.47%
Pb 220.353†             8270.9      508.03 µg/L         1.522      508.03 ppb          1.522   0.30%
   QC value within limits for Pb 220.353  Recovery = 101.61%
S 181.975 Axial†        1226.5      1009.7 µg/L          8.51      1009.7 ppb           8.51   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 100.97%
Sb 206.836†             3850.5      506.10 µg/L         3.554      506.10 ppb          3.554   0.70%
   QC value within limits for Sb 206.836  Recovery = 101.22%
Se 196.026†             1268.9         510 µg/L           0.6         510 ppb            0.6   0.12%
   QC value within limits for Se 196.026  Recovery = 102.03%
SiO2†                  50149.7      5343.6 µg/L         13.94      5343.6 ppb          13.94   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           155194.9      2501.9 µg/L          5.38      2501.9 ppb           5.38   0.22%
   QC value within limits for Si 251.611  Recovery = 100.08%
Sn 189.927†             7284.0      505.98 µg/L         3.457      505.98 ppb          3.457   0.68%
   QC value within limits for Sn 189.927  Recovery = 101.20%
Sr 421.552†           220830.5      509.38 µg/L         1.559      509.38 ppb          1.559   0.31%
   QC value within limits for Sr 421.552  Recovery = 101.88%
Ti 334.940†           502089.5      502.36 µg/L         0.693      502.36 ppb          0.693   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.47%
Tl 190.801†             3767.6      513.86 µg/L         2.039      513.86 ppb          2.039   0.40%
   QC value within limits for Tl 190.801  Recovery = 102.77%
U 409.014†              7643.7      509.25 µg/L         1.021      509.25 ppb          1.021   0.20%
   QC value within limits for U 409.014  Recovery = 101.85%
V 292.402†             94032.9      505.95 µg/L         1.080      505.95 ppb          1.080   0.21%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            81288.7      500.20 µg/L         1.251      500.20 ppb          1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 100.04%
All analyte(s) passed QC.
```

Sequence No.: 25 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/30/2010 18:02:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151780.3	151780.3	103	%			18:02:52
1	Al 396.153Radial†	-40.0	24.0	4.9524	µg/L	4.9524	ppb	18:03:12
1	Ca 317.933Radial†	686.4	-29.4	-1.7696	µg/L	-1.7696	ppb	18:03:12
1	Fe 238.204 Radial†	138.6	-5.7	-0.3811	µg/L	-0.3811	ppb	18:03:12
1	K 766.490 Radial†	1436.1	85.9	35.363	µg/L	35.363	ppb	18:02:52
1	Mg 279.077 IEC†	184.5	10.9	4.4785	µg/L	4.4785	ppb	18:03:12
1	Na 589.592 Radial†	1347.1	105.4	15.979	µg/L	15.979	ppb	18:02:52
1	Sr 421.552†	-270.8	-42.1	-0.0972	µg/L	-0.0972	ppb	18:02:52
1	Sc 361.383	1751686.4	1751686.4	99.807	%			18:04:00
1	Y 371.029	1062037.8	1062037.8	99.811	%			18:04:00
1	Ag 328.068†	3543.8	103.6	0.4081	µg/L	0.4081	ppb	18:04:02
1	As 188.979†	-6.7	11.0	3.8356	µg/L	3.8356	ppb	18:04:22
1	B 249.677†	3203.3	-20.8	-0.3392	µg/L	-0.3392	ppb	18:04:22
1	Ba 233.527†	-132.2	29.7	0.1288	µg/L	0.1288	ppb	18:04:22
1	Be 313.107†	-392.0	392.8	0.1180	µg/L	0.1180	ppb	18:04:02
1	Cd 226.502†	-121.9	-12.1	-0.0830	µg/L	-0.0830	ppb	18:04:22
1	Co 228.616†	-168.7	3.4	0.0467	µg/L	0.0467	ppb	18:04:22
1	Cr 267.716†	150.1	-28.2	-0.2379	µg/L	-0.2379	ppb	18:04:22
1	Cu 324.752†	2898.1	114.8	0.4843	µg/L	0.4843	ppb	18:04:02
1	Mn 257.610†	183.2	8.0	0.0105	µg/L	0.0105	ppb	18:04:22
1	Mo 202.031†	-44.8	-10.1	-0.3221	µg/L	-0.3221	ppb	18:04:22
1	Ni 231.604†	-60.8	17.0	0.2132	µg/L	0.2132	ppb	18:04:22
1	P 214.914†	30.0	25.0	5.9711	µg/L	5.9711	ppb	18:04:22
1	Pb 220.353†	97.6	0.8	0.0491	µg/L	0.0491	ppb	18:04:22
1	S 181.975 Axial†	102.8	15.3	12.573	µg/L	12.573	ppb	18:04:22
1	Sb 206.836†	69.7	-8.2	-1.0769	µg/L	-1.0769	ppb	18:04:22
1	Se 196.026†	1.0	-12.6	-5.04	µg/L	-5.04	ppb	18:04:22
1	SiO2†	1676.0	-73.9	-7.9004	µg/L	-7.9004	ppb	18:04:22
1	Si 251.611†	923.1	-23.8	-0.3831	µg/L	-0.3831	ppb	18:04:02
1	Sn 189.927†	3.9	6.5	0.4467	µg/L	0.4467	ppb	18:04:22
1	Ti 334.940†	772.4	-111.7	-0.1124	µg/L	-0.1124	ppb	18:04:02
1	Tl 190.801†	-112.4	4.5	0.5986	µg/L	0.5986	ppb	18:04:22
1	U 409.014†	-275.1	8.2	0.4912	µg/L	0.4912	ppb	18:04:02
1	V 292.402†	243.1	-66.3	-0.3559	µg/L	-0.3559	ppb	18:04:02
1	Zn 213.857†	522.7	-0.8	-0.0070	µg/L	-0.0070	ppb	18:04:22
2	Sc RADIAL	150352.0	150352.0	102	%			18:03:14
2	Al 396.153Radial†	-78.4	-14.2	-2.9660	µg/L	-2.9660	ppb	18:03:34
2	Ca 317.933Radial†	672.3	-37.0	-2.2240	µg/L	-2.2240	ppb	18:03:34
2	Fe 238.204 Radial†	139.7	-3.3	-0.2234	µg/L	-0.2234	ppb	18:03:34
2	K 766.490 Radial†	1509.0	170.9	70.320	µg/L	70.320	ppb	18:03:14
2	Mg 279.077 IEC†	164.0	-7.5	-3.0724	µg/L	-3.0724	ppb	18:03:34
2	Na 589.592 Radial†	1365.9	136.4	20.649	µg/L	20.649	ppb	18:03:14
2	Sr 421.552†	-117.2	106.4	0.2454	µg/L	0.2454	ppb	18:03:14
2	Sc 361.383	1757278.8	1757278.8	100.13	%			18:04:24
2	Y 371.029	1064446.3	1064446.3	100.04	%			18:04:24
2	Ag 328.068†	3368.6	-82.7	-0.3398	µg/L	-0.3398	ppb	18:04:26
2	As 188.979†	-14.3	3.4	1.1966	µg/L	1.1966	ppb	18:04:47
2	B 249.677†	3190.2	-44.1	-0.7190	µg/L	-0.7190	ppb	18:04:47
2	Ba 233.527†	-159.9	2.4	0.0111	µg/L	0.0111	ppb	18:04:47
2	Be 313.107†	-887.5	-100.8	-0.0345	µg/L	-0.0345	ppb	18:04:26
2	Cd 226.502†	-82.6	27.6	0.1892	µg/L	0.1892	ppb	18:04:47
2	Co 228.616†	-168.5	4.1	0.0555	µg/L	0.0555	ppb	18:04:47
2	Cr 267.716†	132.4	-46.4	-0.3795	µg/L	-0.3795	ppb	18:04:47
2	Cu 324.752†	2643.9	-148.3	-0.6367	µg/L	-0.6367	ppb	18:04:26
2	Mn 257.610†	145.3	-30.4	-0.0405	µg/L	-0.0405	ppb	18:04:47
2	Mo 202.031†	-13.5	21.3	0.6781	µg/L	0.6781	ppb	18:04:47
2	Ni 231.604†	-77.1	0.9	0.0111	µg/L	0.0111	ppb	18:04:47
2	P 214.914†	12.5	7.5	1.7862	µg/L	1.7862	ppb	18:04:47
2	Pb 220.353†	85.7	-11.4	-0.6841	µg/L	-0.6841	ppb	18:04:47

2	S 181.975 Axial†	89.0	1.2	1.0157 µg/L	1.0157 ppb	18:04:47
2	Sb 206.836†	71.9	-6.3	-0.8105 µg/L	-0.8105 ppb	18:04:47
2	Se 196.026†	20.3	6.7	2.68 µg/L	2.68 ppb	18:04:47
2	SiO2†	1697.0	-58.3	-6.2667 µg/L	-6.2667 ppb	18:04:47
2	Si 251.611†	933.3	-16.5	-0.2813 µg/L	-0.2813 ppb	18:04:26
2	Sn 189.927†	8.4	10.9	0.7577 µg/L	0.7577 ppb	18:04:47
2	Ti 334.940†	879.7	-7.0	-0.0010 µg/L	-0.0010 ppb	18:04:26
2	Tl 190.801†	-114.8	2.4	0.3234 µg/L	0.3234 ppb	18:04:47
2	U 409.014†	-507.2	-222.8	-13.924 µg/L	-13.924 ppb	18:04:26
2	V 292.402†	406.8	96.4	0.5080 µg/L	0.5080 ppb	18:04:26
2	Zn 213.857†	527.3	2.1	0.0134 µg/L	0.0134 ppb	18:04:47
3	Sc RADIAL	152318.3	152318.3	103 %		18:03:36
3	Al 396.153Radial†	-73.0	-8.0	-1.6470 µg/L	-1.6470 ppb	18:03:56
3	Ca 317.933Radial†	695.1	-23.4	-1.4076 µg/L	-1.4076 ppb	18:03:56
3	Fe 238.204 Radial†	147.7	2.7	0.1805 µg/L	0.1805 ppb	18:03:56
3	K 766.490 Radial†	1471.4	115.2	47.414 µg/L	47.414 ppb	18:03:36
3	Mg 279.077 IEC†	138.4	-34.5	-14.137 µg/L	-14.137 ppb	18:03:56
3	Na 589.592 Radial†	1413.1	164.8	24.982 µg/L	24.982 ppb	18:03:36
3	Sr 421.552†	-177.7	49.2	0.1135 µg/L	0.1135 ppb	18:03:36
3	Sc 361.383	1761711.7	1761711.7	100.38 %		18:04:49
3	Y 371.029	1067001.7	1067001.7	100.28 %		18:04:49
3	Ag 328.068†	3547.8	87.4	0.3472 µg/L	0.3472 ppb	18:04:51
3	As 188.979†	-20.0	-2.2	-0.7857 µg/L	-0.7857 ppb	18:05:11
3	B 249.677†	3230.5	-12.0	-0.1957 µg/L	-0.1957 ppb	18:05:11
3	Ba 233.527†	-162.5	0.3	0.0006 µg/L	0.0006 ppb	18:05:11
3	Be 313.107†	-908.1	-119.1	-0.0335 µg/L	-0.0335 ppb	18:04:51
3	Cd 226.502†	-93.1	17.3	0.1188 µg/L	0.1188 ppb	18:05:11
3	Co 228.616†	-181.8	-8.7	-0.1171 µg/L	-0.1171 ppb	18:05:11
3	Cr 267.716†	129.9	-49.1	-0.4200 µg/L	-0.4200 ppb	18:05:11
3	Cu 324.752†	2666.8	-132.2	-0.5513 µg/L	-0.5513 ppb	18:04:51
3	Mn 257.610†	186.9	10.6	0.0148 µg/L	0.0148 ppb	18:05:11
3	Mo 202.031†	-35.8	-0.9	-0.0304 µg/L	-0.0304 ppb	18:05:11
3	Ni 231.604†	-74.5	3.7	0.0466 µg/L	0.0466 ppb	18:05:11
3	P 214.914†	5.9	0.9	0.2218 µg/L	0.2218 ppb	18:05:11
3	Pb 220.353†	74.9	-22.4	-1.3753 µg/L	-1.3753 ppb	18:05:11
3	S 181.975 Axial†	84.5	-3.5	-2.8453 µg/L	-2.8453 ppb	18:05:11
3	Sb 206.836†	72.9	-5.4	-0.7086 µg/L	-0.7086 ppb	18:05:11
3	Se 196.026†	13.4	-0.2	-0.085 µg/L	-0.085 ppb	18:05:11
3	SiO2†	1672.5	-86.9	-9.3016 µg/L	-9.3016 ppb	18:05:11
3	Si 251.611†	708.7	-242.6	-3.9283 µg/L	-3.9283 ppb	18:04:51
3	Sn 189.927†	1.8	4.4	0.3022 µg/L	0.3022 ppb	18:05:11
3	Ti 334.940†	729.1	-159.2	-0.1613 µg/L	-0.1613 ppb	18:04:51
3	Tl 190.801†	-107.3	10.2	1.3632 µg/L	1.3632 ppb	18:05:11
3	U 409.014†	-165.7	118.7	7.3880 µg/L	7.3880 ppb	18:04:51
3	V 292.402†	163.6	-146.8	-0.7764 µg/L	-0.7764 ppb	18:04:51
3	Zn 213.857†	510.6	-15.9	-0.0986 µg/L	-0.0986 ppb	18:05:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1756892.3	100.10	%	0.286				0.29%
Sc RADIAL	151483.5	102	%	0.7				0.67%
Y 371.029	1064495.3	100.04	%	0.233				0.23%
Ag 328.068†	36.1	0.1385	µg/L	0.41530	0.1385	ppb	0.41530	299.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.6	0.1131	µg/L	4.24252	0.1131	ppb	4.24252	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.1	1.4155	µg/L	2.31844	1.4155	ppb	2.31844	163.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-25.6	-0.4180	µg/L	0.27043	-0.4180	ppb	0.27043	64.70%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.0468	µg/L	0.07118	0.0468	ppb	0.07118	151.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.6	0.0167	µg/L	0.08778	0.0167	ppb	0.08778	525.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-29.9	-1.8004	µg/L	0.40907	-1.8004	ppb	0.40907	22.72%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0750	µg/L	0.14131	0.0750	ppb	0.14131	188.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.4	-0.0050	µg/L	0.09722	-0.0050	ppb	0.09722	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -41.2     -0.3458 µg/L       0.09558     -0.3458 ppb        0.09558  27.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -55.2     -0.2346 µg/L       0.62400     -0.2346 ppb        0.62400 266.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.1     -0.1413 µg/L       0.28967     -0.1413 ppb        0.28967 204.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        124.0      51.032 µg/L       17.7573      51.032 ppb        17.7573  34.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.4     -4.2437 µg/L       9.36298     -4.2437 ppb        9.36298 220.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -3.9     -0.0051 µg/L       0.03077     -0.0051 ppb        0.03077 603.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.4      0.1085 µg/L       0.51436      0.1085 ppb        0.51436 474.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       135.5      20.537 µg/L        4.5028      20.537 ppb         4.5028  21.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.2      0.0903 µg/L       0.10791      0.0903 ppb        0.10791 119.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.1      2.6597 µg/L       2.97253      2.6597 ppb        2.97253 111.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.0     -0.6701 µg/L       0.71232     -0.6701 ppb        0.71232 106.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.4      3.5812 µg/L       8.02299      3.5812 ppb        8.02299 224.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.7     -0.8653 µg/L       0.19019     -0.8653 ppb        0.19019  21.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.0      -0.816 µg/L        3.9132      -0.816 ppb         3.9132 479.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -73.0     -7.8229 µg/L       1.51896     -7.8229 ppb        1.51896  19.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -94.3     -1.5309 µg/L       2.07685     -1.5309 ppb        2.07685 135.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.3      0.5022 µg/L       0.23278      0.5022 ppb        0.23278  46.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               37.8      0.0872 µg/L       0.17279      0.0872 ppb        0.17279 198.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -92.6     -0.0916 µg/L       0.08215     -0.0916 ppb        0.08215  89.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.7      0.7617 µg/L       0.53874      0.7617 ppb        0.53874  70.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -32.0     -2.0149 µg/L      10.87474     -2.0149 ppb       10.87474 539.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -38.9     -0.2081 µg/L       0.65482     -0.2081 ppb        0.65482 314.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -4.9     -0.0308 µg/L       0.05967     -0.0308 ppb        0.05967 194.02%
   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: Monday, April 12, 2010 12:06:55
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1047
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	1600.7	1600.690	66.606	4.2
	Mg	24.0	42537.5	42537.482	1284.267	3.0
	Co	58.9	65006.2	65006.172	391.198	0.6
	Rh	102.9	127267.0	127267.002	942.029	0.7
	In	114.9	184150.5	184150.534	1137.512	0.6
	Pb	208.0	214713.3	214713.337	559.415	0.3
⌈>	Ba	137.9	172158.1	172158.058	849.562	0.5
⌊	Ba++	69.0	1998.4	0.012	0.000	1.4
⌈>	Ce	139.9	211469.3	211469.349	1635.986	0.8
⌊	CeO	155.9	4156.7	0.020	0.001	2.7
	Bkgd	220.0	20.6	20.600	2.559	12.4

Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.0	3575.4
Co	59	21	8.3	64290.0
In	115	21	9.8	174307.3

ICPMS #5 Instrument Tuning Report

File Name: 100412.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2072	0.537
Be	9.0	9.0	2052	2088	0.534
Mg	24.0	24.0	5693	2100	0.514
Mg	25.0	25.0	5933	2100	0.500
Mg	26.0	26.0	6180	2100	0.514
Co	58.9	58.9	14187	2125	0.535
Rh	102.9	102.9	24877	2180	0.538
In	114.9	114.9	27793	2200	0.533
Ce	139.9	139.9	33875	2220	0.545
Pb	206.0	206.0	49948	2305	0.528
Pb	207.0	207.0	50171	2240	0.592
Pb	208.0	208.0	50451	2280	0.646
U	238.1	238.0	57726	2295	0.643

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, April 12, 2010 20:44:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\Blank.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		20	
>	Sc	45		ug/L		705429	
	Cr	52		ug/L		-2548	
	Cr	53		ug/L		77403	
	Mn	55		ug/L		1114	
	Ni	60		ug/L		94	
>	Ge	74		ug/L		294519	
	As	75		ug/L		-189	
	Se	77		ug/L		5245	
	Se	82		ug/L		-4	
	Kr	83		ug/L		91	
	Mo	98		ug/L		145	
	Ag	107		ug/L		79	
	Cd	111		ug/L		34	
	Cd	114		ug/L		92	
>	In	115		ug/L		208784	
	Sb	121		ug/L		250	
	Sb	123		ug/L		179	
>	Lu	175		ug/L		404929	
	Tl	205		ug/L		2514	
	Pb	208		ug/L		3982	
	U	238		ug/L		978	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Ni	60	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
Pb	208	Linear Thru Zero	
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					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	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: Monday, April 12, 2010 20:49:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\Standard 1.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	8.153	1732	0.002
>	Sc	45		**ug/L**		694815	694815.017
	Cr	52	**10.000**	**ug/L**	1.414	32965	0.051
	Cr	53		**ug/L**		80214	0.006
	Mn	55	**10.000**	**ug/L**	1.174	65261	0.092
	Ni	60	**10.000**	**ug/L**	0.292	10416	0.015
>	Ge	74		**ug/L**		295023	295023.232
	As	75	**10.000**	**ug/L**	7.199	7502	0.026
	Se	77		**ug/L**		5837	0.002
	Se	82	**10.000**	**ug/L**	3.319	757	0.003
	Kr	83		**ug/L**		96	0.000
	Mo	98	**10.000**	**ug/L**	3.879	23961	0.114
	Ag	107	**10.000**	**ug/L**	2.683	42687	0.205
	Cd	111	**10.000**	**ug/L**	4.258	11093	0.053
	Cd	114		**ug/L**		27038	0.129
>	In	115		**ug/L**		208288	208287.819
	Sb	121	**10.000**	**ug/L**	5.533	40437	0.193
	Sb	123		**ug/L**		30890	0.148
>	Lu	175		**ug/L**		402374	402374.125
	Tl	205	**10.000**	**ug/L**	2.497	172831	0.423
	Pb	208	**10.000**	**ug/L**	2.947	312191	0.766
	U	238	**10.000**	**ug/L**	1.620	398203	0.987

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
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 % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	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: Monday, April 12, 2010 20:53:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\Standard 2.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.928**	ug/L	6.898	16259	0.023
>	Sc	45		ug/L		706785	706784.999
	Cr	52	**99.908**	ug/L	1.870	327619	0.467
	Cr	53		ug/L		111297	0.048
	Mn	55	**99.934**	ug/L	2.026	612892	0.866
	Ni	60	**99.913**	ug/L	0.952	96650	0.137
>	Ge	74		ug/L		297962	297961.750
	As	75	**99.939**	ug/L	1.511	72961	0.246
	Se	77		ug/L		10430	0.017
	Se	82	**99.958**	ug/L	0.645	7369	0.025
	Kr	83		ug/L		98	0.000
	Mo	98	**99.958**	ug/L	2.162	233524	1.097
	Ag	107	**99.908**	ug/L	2.187	398475	1.873
	Cd	111	**99.946**	ug/L	1.743	107242	0.504
	Cd	114		ug/L		259599	1.220
>	In	115		ug/L		212737	212737.489
	Sb	121	**99.985**	ug/L	0.330	404708	1.901
	Sb	123		ug/L		315964	1.484
>	Lu	175		ug/L		411077	411076.654
	Tl	205	**99.862**	ug/L	0.637	1530781	3.717
	Pb	208	**99.890**	ug/L	2.081	2839482	6.899
	U	238	**99.887**	ug/L	0.690	3644318	8.863

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	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: Monday, April 12, 2010 20:58:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 1.189

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.712**	**ug/L**	5.668	8430	0.013
>	Sc	45		**ug/L**		668308	668308.235
	Cr	52	**54.750**	**ug/L**	1.995	168689	0.256
	Cr	53		**ug/L**		93882	0.031
	Mn	55	**55.200**	**ug/L**	1.845	320618	0.478
	Ni	60	**55.687**	**ug/L**	1.232	50979	0.076
>	Ge	74		**ug/L**		283707	283706.686
	As	75	**54.121**	**ug/L**	2.161	37542	0.133
	Se	77		**ug/L**		7920	0.010
	Se	82	**53.458**	**ug/L**	0.981	3750	0.013
	Kr	83		**ug/L**		89	0.000
	Mo	98	**52.422**	**ug/L**	2.001	116414	0.575
	Ag	107	**54.749**	**ug/L**	1.124	207501	1.026
	Cd	111	**53.675**	**ug/L**	1.854	54727	0.271
	Cd	114		**ug/L**		133355	0.659
>	In	115		**ug/L**		202091	202090.616
	Sb	121	**56.806**	**ug/L**	1.230	218517	1.080
	Sb	123		**ug/L**		170390	0.842
>	Lu	175		**ug/L**		390269	390268.613
	Tl	205	**53.409**	**ug/L**	0.456	778346	1.988
	Pb	208	**54.897**	**ug/L**	1.087	1483359	3.791
	U	238	**54.507**	**ug/L**	1.103	1888463	4.837

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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	109.425				
>	Sc	45		94.7			
	Cr	52	109.500				
	Cr	53					
	Mn	55	110.399				
	Ni	60	111.375				
>	Ge	74		96.3			
	As	75	108.242				
	Se	77					
	Se	82	106.915				
	Kr	83					
	Mo	98	104.845				
	Ag	107	109.499				
	Cd	111	107.349				
	Cd	114					
>	In	115		96.8			
	Sb	121	113.611				
	Sb	123					
>	Lu	175		96.4			
	Tl	205	106.818				
	Pb	208	109.794				
	U	238	109.015				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)
QC Std 1	Ni	60	ICV is out of limits (+/- 10%)
QC Std 1	Sb	121	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, April 12, 2010 21:03:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 2.190

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.007**	**ug/L**	339.958	17	-0.000
>	Sc	45		**ug/L**		649508	649507.974
	Cr	52	**-0.044**	**ug/L**	94.958	-2481	-0.000
	Cr	53		**ug/L**		75087	0.006
	Mn	55	**0.011**	**ug/L**	91.630	1085	0.000
	Ni	60	**0.013**	**ug/L**	32.741	98	0.000
>	Ge	74		**ug/L**		276880	276879.994
	As	75	**-0.422**	**ug/L**	175.409	-459	-0.001
	Se	77		**ug/L**		5109	0.001
	Se	82	**0.036**	**ug/L**	184.433	-1	0.000
	Kr	83		**ug/L**		89	0.000
	Mo	98	**0.040**	**ug/L**	27.515	224	0.000
	Ag	107	**0.007**	**ug/L**	34.109	101	0.000
	Cd	111	**0.007**	**ug/L**	97.637	39	0.000
	Cd	114		**ug/L**		96	0.000
>	In	115		**ug/L**		196027	196027.244
	Sb	121	**0.316**	**ug/L**	11.623	1410	0.006
	Sb	123		**ug/L**		1081	0.005
>	Lu	175		**ug/L**		385067	385067.137
	Tl	205	**0.253**	**ug/L**	18.343	6011	0.009
	Pb	208	**0.005**	**ug/L**	108.340	3917	0.000
	U	238	**0.000**	**ug/L**	243.996	943	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		92.1			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.9			
	Sb	121					
	Sb	123					
>	Lu	175		95.1			
	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: Monday, April 12, 2010 21:07:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 3.191

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.557**	**ug/L**	12.529	107	0.000
>	Sc	45		**ug/L**		681571	681570.769
	Cr	52	**12.143**	**ug/L**	0.809	36242	0.057
	Cr	53		**ug/L**		79793	0.007
	Mn	55	**6.444**	**ug/L**	0.514	39126	0.056
	Ni	60	**2.469**	**ug/L**	0.389	2392	0.003
>	Ge	74		**ug/L**		290814	290813.924
	As	75	**6.103**	**ug/L**	3.061	4175	0.015
	Se	77		**ug/L**		5387	0.001
	Se	82	**6.052**	**ug/L**	6.088	432	0.001
	Kr	83		**ug/L**		84	-0.000
	Mo	98	**0.568**	**ug/L**	2.990	1448	0.006
	Ag	107	**1.109**	**ug/L**	1.672	4424	0.021
	Cd	111	**1.232**	**ug/L**	5.594	1331	0.006
	Cd	114		**ug/L**		3128	0.015
>	In	115		**ug/L**		208973	208973.355
	Sb	121	**3.218**	**ug/L**	1.812	13037	0.061
	Sb	123		**ug/L**		10147	0.048
>	Lu	175		**ug/L**		406464	406463.772
	Tl	205	**1.256**	**ug/L**	2.141	21523	0.047
	Pb	208	**2.450**	**ug/L**	1.713	72746	0.169
	U	238	**0.266**	**ug/L**	2.301	10556	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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 % Di	Duplicate Rel. % Difference
	Be	9	111.420				
>	Sc	45		96.6			
	Cr	52	121.431				
	Cr	53					
	Mn	55	128.877				
	Ni	60	123.463				
>	Ge	74		98.7			
	As	75	122.063				
	Se	77					
	Se	82	121.033				
	Kr	83					
	Mo	98	113.611				
	Ag	107	110.939				
	Cd	111	123.207				
	Cd	114					
>	In	115		100.1			
	Sb	121	107.260				
	Sb	123					
>	Lu	175		100.4			
	Tl	205	125.611				
	Pb	208	122.478				
	U	238	132.768				

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: Monday, April 12, 2010 21:12:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 4.192

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.104**	**ug/L**	64.022	33	0.000
>	Sc	45		**ug/L**		636166	636165.522
	Cr	52	**2.633**	**ug/L**	0.465	5535	0.012
	Cr	53		**ug/L**		52133	-0.028
	Mn	55	**5.934**	**ug/L**	1.479	33709	0.051
	Ni	60	**2.970**	**ug/L**	2.551	2668	0.004
>	Ge	74		**ug/L**		265413	265412.837
	As	75	**-0.653**	**ug/L**	113.064	-597	-0.002
	Se	77		**ug/L**		4547	-0.001
	Se	82	**-1.043**	**ug/L**	9.140	-72	-0.000
	Kr	83		**ug/L**		186	0.000
	Mo	98	**2039.427**	**ug/L**	0.461	4209339	22.386
	Ag	107	**0.094**	**ug/L**	2.369	401	0.002
	Cd	111	**0.361**	**ug/L**	37.854	373	0.002
	Cd	114		**ug/L**		5182	0.027
>	In	115		**ug/L**		188031	188030.783
	Sb	121	**0.181**	**ug/L**	12.881	873	0.003
	Sb	123		**ug/L**		682	0.003
>	Lu	175		**ug/L**		372361	372361.410
	Tl	205	**-0.022**	**ug/L**	15.304	2014	-0.001
	Pb	208	**0.207**	**ug/L**	2.259	8994	0.014
	U	238	**-0.021**	**ug/L**	3.124	197	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		90.2			
	Cr	52	79.785				
	Cr	53					
	Mn	55	102.316				
	Ni	60	89.724				
>	Ge	74		90.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98	101.971				
	Ag	107					
	Cd	111	81.201				
	Cd	114					
>	In	115		90.1			
	Sb	121					
	Sb	123					
>	Lu	175		92.0			
	Tl	205					
	Pb	208	109.695				
	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: Monday, April 12, 2010 21:16:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 5.193

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.927**	**ug/L**	5.051	3231	0.005
>	Sc	45		**ug/L**		637046	637045.954
	Cr	52	**23.563**	**ug/L**	1.354	67893	0.110
	Cr	53		**ug/L**		58799	-0.017
	Mn	55	**26.783**	**ug/L**	1.470	148810	0.232
	Ni	60	**22.655**	**ug/L**	2.249	19818	0.031
>	Ge	74		**ug/L**		264758	264758.443
	As	75	**20.807**	**ug/L**	1.560	13366	0.051
	Se	77		**ug/L**		5409	0.003
	Se	82	**20.735**	**ug/L**	7.320	1356	0.005
	Kr	83		**ug/L**		176	0.000
	Mo	98	**2100.768**	**ug/L**	1.176	4344762	23.059
	Ag	107	**20.492**	**ug/L**	0.834	72449	0.384
	Cd	111	**20.661**	**ug/L**	3.514	19659	0.104
	Cd	114		**ug/L**		51205	0.271
>	In	115		**ug/L**		188424	188423.617
	Sb	121	**21.291**	**ug/L**	0.283	76509	0.405
	Sb	123		**ug/L**		60275	0.319
>	Lu	175		**ug/L**		379817	379817.122
	Tl	205	**19.698**	**ug/L**	1.414	280840	0.733
	Pb	208	**20.668**	**ug/L**	2.066	545695	1.427
	U	238	**22.025**	**ug/L**	1.021	743082	1.954

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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	109.634				
>	Sc	45		90.3			
	Cr	52	101.128				
	Cr	53					
	Mn	55	103.810				
	Ni	60	97.189				
>	Ge	74		89.9			
	As	75	104.035				
	Se	77					
	Se	82	103.673				
	Kr	83					
	Mo	98	105.038				
	Ag	107	102.458				
	Cd	111	101.059				
	Cd	114					
>	In	115		90.2			
	Sb	121	106.457				
	Sb	123					
>	Lu	175		93.8			
	Tl	205	98.492				
	Pb	208	102.371				
	U	238	110.125				

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: Monday, April 12, 2010 21:21:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 6.194

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.149**	**ug/L**	4.511	8272	0.012
>	Sc	45		**ug/L**		688105	688104.512
	Cr	52	**51.330**	**ug/L**	0.900	162689	0.240
	Cr	53		**ug/L**		88276	0.019
	Mn	55	**53.134**	**ug/L**	0.285	317830	0.460
	Ni	60	**52.986**	**ug/L**	0.472	49948	0.072
>	Ge	74		**ug/L**		291486	291485.597
	As	75	**51.338**	**ug/L**	1.318	36577	0.126
	Se	77		**ug/L**		7004	0.006
	Se	82	**53.092**	**ug/L**	1.572	3827	0.013
	Kr	83		**ug/L**		72	-0.000
	Mo	98	**50.046**	**ug/L**	0.585	114419	0.549
	Ag	107	**52.707**	**ug/L**	1.779	205626	0.988
	Cd	111	**51.167**	**ug/L**	0.266	53709	0.258
	Cd	114		**ug/L**		129464	0.622
>	In	115		**ug/L**		208024	208023.718
	Sb	121	**53.412**	**ug/L**	1.004	211524	1.016
	Sb	123		**ug/L**		165902	0.797
>	Lu	175		**ug/L**		411661	411660.873
	Tl	205	**49.752**	**ug/L**	1.883	765008	1.852
	Pb	208	**51.369**	**ug/L**	0.617	1464472	3.548
	U	238	**50.901**	**ug/L**	0.453	1860211	4.517

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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	104.298				
>	Sc	45		97.5			
	Cr	52	102.660				
	Cr	53					
	Mn	55	106.267				
	Ni	60	105.973				
>	Ge	74		99.0			
	As	75	102.677				
	Se	77					
	Se	82	106.184				
	Kr	83					
	Mo	98	100.093				
	Ag	107	105.414				
	Cd	111	102.333				
	Cd	114					
>	In	115		99.6			
	Sb	121	106.824				
	Sb	123					
>	Lu	175		101.7			
	Tl	205	99.503				
	Pb	208	102.738				
	U	238	101.801				

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: Monday, April 12, 2010 21:26:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 7.195

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.007**	**ug/L**	514.486	18	-0.000
>	Sc	45		**ug/L**		687926	687925.617
	Cr	52	**-0.253**	**ug/L**	12.482	-3299	-0.001
	Cr	53		**ug/L**		69923	-0.008
	Mn	55	**-0.021**	**ug/L**	74.271	961	-0.000
	Ni	60	**0.014**	**ug/L**	133.882	104	0.000
>	Ge	74		**ug/L**		288384	288384.397
	As	75	**-0.165**	**ug/L**	302.560	-301	-0.000
	Se	77		**ug/L**		4432	-0.002
	Se	82	**0.244**	**ug/L**	27.628	14	0.000
	Kr	83		**ug/L**		75	-0.000
	Mo	98	**0.116**	**ug/L**	10.190	408	0.001
	Ag	107	**0.009**	**ug/L**	76.098	113	0.000
	Cd	111	**0.008**	**ug/L**	93.816	42	0.000
	Cd	114		**ug/L**		88	-0.000
>	In	115		**ug/L**		207226	207225.786
	Sb	121	**0.068**	**ug/L**	5.687	517	0.001
	Sb	123		**ug/L**		391	0.001
>	Lu	175		**ug/L**		406530	406529.678
	Tl	205	**0.310**	**ug/L**	12.162	7217	0.012
	Pb	208	**-0.010**	**ug/L**	43.643	3718	-0.001
	U	238	**0.000**	**ug/L**	433.752	997	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		97.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sb	121					
	Sb	123					
>	Lu	175		100.4			
	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: 1202065070
Sample Date/Time: Monday, April 12, 2010 21:30:45
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\1202065070.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.007**	**ug/L**	376.308	18	-0.000
>	Sc	45		**ug/L**		661187	661187.137
	Cr	52	**-0.780**	**ug/L**	15.259	-4801	-0.004
	Cr	53		**ug/L**		138730	0.100
	Mn	55	**0.067**	**ug/L**	11.814	1426	0.001
	Ni	60	**0.018**	**ug/L**	34.682	104	0.000
>	Ge	74		**ug/L**		287086	287085.966
	As	75	**-0.800**	**ug/L**	66.340	-747	-0.002
	Se	77		**ug/L**		11972	0.024
	Se	82	**0.062**	**ug/L**	186.834	1	0.000
	Kr	83		**ug/L**		82	-0.000
	Mo	98	**0.009**	**ug/L**	21.958	161	0.000
	Ag	107	**-0.004**	**ug/L**	73.157	59	-0.000
	Cd	111	**-0.010**	**ug/L**	152.549	23	-0.000
	Cd	114		**ug/L**		45	-0.000
>	In	115		**ug/L**		203095	203094.735
	Sb	121	**0.049**	**ug/L**	15.907	432	0.001
	Sb	123		**ug/L**		357	0.001
>	Lu	175		**ug/L**		396363	396362.812
	Tl	205	**0.031**	**ug/L**	14.016	2913	0.001
	Pb	208	**-0.047**	**ug/L**	8.222	2619	-0.003
	U	238	**-0.026**	**ug/L**	0.315	48	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		93.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		97.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.3			
	Sb	121					
	Sb	123					
>	Lu	175		97.9			
	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: 1202065071
Sample Date/Time: Monday, April 12, 2010 21:35:20
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\1202065071.197

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**55.050**	**ug/L**	2.804	8455	0.013
>	Sc	45		**ug/L**		666080	666080.455
	Cr	52	**59.028**	**ug/L**	1.105	181443	0.276
	Cr	53		**ug/L**		164730	0.138
	Mn	55	**56.592**	**ug/L**	3.558	327496	0.490
	Ni	60	**53.173**	**ug/L**	1.839	48511	0.073
>	Ge	74		**ug/L**		289839	289838.781
	As	75	**50.653**	**ug/L**	1.304	35884	0.124
	Se	77		**ug/L**		14904	0.034
	Se	82	**51.619**	**ug/L**	1.614	3700	0.013
	Kr	83		**ug/L**		85	-0.000
	Mo	98	**50.794**	**ug/L**	2.269	111663	0.558
	Ag	107	**53.383**	**ug/L**	1.447	200274	1.001
	Cd	111	**52.740**	**ug/L**	2.113	53233	0.266
	Cd	114		**ug/L**		128208	0.640
>	In	115		**ug/L**		200076	200075.852
	Sb	121	**56.326**	**ug/L**	2.317	214477	1.071
	Sb	123		**ug/L**		169104	0.844
>	Lu	175		**ug/L**		396634	396633.795
	Tl	205	**44.736**	**ug/L**	2.360	663055	1.665
	Pb	208	**50.949**	**ug/L**	0.888	1399488	3.519
	U	238	**49.355**	**ug/L**	1.307	1738005	4.379

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		94.4			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.8			
	Sb	121					
	Sb	123					
>	Lu	175		98.0			
	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: 248518001
Sample Date/Time: Monday, April 12, 2010 21:49:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\248518001.200

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.018**	**ug/L**	119.518	22	0.000
>	Sc	45		**ug/L**		666395	666394.547
	Cr	52	**-0.463**	**ug/L**	24.389	-3853	-0.002
	Cr	53		**ug/L**		147345	0.111
	Mn	55	**0.941**	**ug/L**	1.165	6485	0.008
	Ni	60	**0.052**	**ug/L**	29.405	136	0.000
>	Ge	74		**ug/L**		288106	288106.029
	As	75	**-0.783**	**ug/L**	5.362	-739	-0.002
	Se	77		**ug/L**		12277	0.025
	Se	82	**0.258**	**ug/L**	68.683	15	0.000
	Kr	83		**ug/L**		77	-0.000
	Mo	98	**-0.022**	**ug/L**	18.886	92	-0.000
	Ag	107	**0.007**	**ug/L**	15.476	102	0.000
	Cd	111	**-0.011**	**ug/L**	72.768	22	-0.000
	Cd	114		**ug/L**		55	-0.000
>	In	115		**ug/L**		203600	203600.080
	Sb	121	**-0.018**	**ug/L**	4.660	174	-0.000
	Sb	123		**ug/L**		157	-0.000
>	Lu	175		**ug/L**		398241	398241.198
	Tl	205	**0.031**	**ug/L**	2.173	2939	0.001
	Pb	208	**-0.006**	**ug/L**	123.167	3741	-0.000
	U	238	**-0.022**	**ug/L**	0.372	190	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		94.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.5			
	Sb	121					
	Sb	123					
>	Lu	175		98.3			
	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 8
Sample Date/Time: Monday, April 12, 2010 21:58:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 8.202

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.482**	**ug/L**	6.432	8102	0.011
>	Sc	45		**ug/L**		709877	709877.262
	Cr	52	**50.101**	**ug/L**	3.077	163717	0.234
	Cr	53		**ug/L**		99696	0.031
	Mn	55	**51.068**	**ug/L**	1.393	315156	0.442
	Ni	60	**51.219**	**ug/L**	2.028	49807	0.070
>	Ge	74		**ug/L**		295884	295884.153
	As	75	**52.158**	**ug/L**	2.632	37719	0.128
	Se	77		**ug/L**		7700	0.008
	Se	82	**50.143**	**ug/L**	2.363	3668	0.012
	Kr	83		**ug/L**		96	0.000
	Mo	98	**49.620**	**ug/L**	2.255	114435	0.545
	Ag	107	**52.065**	**ug/L**	0.649	204892	0.976
	Cd	111	**51.067**	**ug/L**	0.412	54075	0.258
	Cd	114		**ug/L**		127723	0.608
>	In	115		**ug/L**		209848	209847.870
	Sb	121	**53.914**	**ug/L**	0.380	215389	1.025
	Sb	123		**ug/L**		167084	0.795
>	Lu	175		**ug/L**		417215	417215.356
	Tl	205	**47.440**	**ug/L**	3.775	739144	1.766
	Pb	208	**50.901**	**ug/L**	1.911	1470538	3.515
	U	238	**50.199**	**ug/L**	0.625	1859467	4.454

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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	98.963				
>	Sc	45		100.6			
	Cr	52	100.202				
	Cr	53					
	Mn	55	102.135				
	Ni	60	102.437				
>	Ge	74		100.5			
	As	75	104.315				
	Se	77					
	Se	82	100.286				
	Kr	83					
	Mo	98	99.241				
	Ag	107	104.129				
	Cd	111	102.135				
	Cd	114					
>	In	115		100.5			
	Sb	121	107.829				
	Sb	123					
>	Lu	175		103.0			
	Tl	205	94.879				
	Pb	208	101.802				
	U	238	100.398				

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: Monday, April 12, 2010 22:02:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 9.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.024**	**ug/L**	8.592	15	-0.000
>	Sc	45		**ug/L**		674516	674515.833
	Cr	52	**-0.295**	**ug/L**	34.329	-3365	-0.001
	Cr	53		**ug/L**		75084	0.002
	Mn	55	**-0.012**	**ug/L**	114.014	994	-0.000
	Ni	60	**0.014**	**ug/L**	81.723	102	0.000
>	Ge	74		**ug/L**		283410	283409.895
	As	75	**-0.041**	**ug/L**	416.218	-211	-0.000
	Se	77		**ug/L**		4684	-0.001
	Se	82	**0.267**	**ug/L**	26.843	15	0.000
	Kr	83		**ug/L**		68	-0.000
	Mo	98	**0.021**	**ug/L**	33.403	187	0.000
	Ag	107	**0.005**	**ug/L**	46.044	95	0.000
	Cd	111	**0.004**	**ug/L**	485.211	37	0.000
	Cd	114		**ug/L**		90	0.000
>	In	115		**ug/L**		201238	201237.579
	Sb	121	**0.058**	**ug/L**	30.324	461	0.001
	Sb	123		**ug/L**		350	0.001
>	Lu	175		**ug/L**		390292	390291.566
	Tl	205	**0.634**	**ug/L**	11.737	11615	0.024
	Pb	208	**0.006**	**ug/L**	125.309	3989	0.000
	U	238	**0.002**	**ug/L**	60.018	1024	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		95.6			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		96.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.4			
	Sb	121					
	Sb	123					
>	Lu	175		96.4			
	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: 1202065072
Sample Date/Time: Monday, April 12, 2010 22:12:10
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\1202065072.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.019**	ug/L	76.106	21	0.000
>	Sc	45		ug/L		651349	651348.699
	Cr	52	**-0.246**	ug/L	60.444	-3095	-0.001
	Cr	53		ug/L		148847	0.119
	Mn	55	**0.709**	ug/L	3.307	5030	0.006
	Ni	60	**0.078**	ug/L	25.135	156	0.000
>	Ge	74		ug/L		284452	284451.523
	As	75	**-0.362**	ug/L	145.968	-436	-0.001
	Se	77		ug/L		12424	0.026
	Se	82	**0.284**	ug/L	88.940	16	0.000
	Kr	83		ug/L		73	-0.000
	Mo	98	**-0.020**	ug/L	25.951	94	-0.000
	Ag	107	**-0.001**	ug/L	356.709	71	-0.000
	Cd	111	**0.042**	ug/L	47.503	74	0.000
	Cd	114		ug/L		164	0.000
>	In	115		ug/L		196743	196743.043
	Sb	121	**-0.008**	ug/L	19.363	206	-0.000
	Sb	123		ug/L		166	-0.000
>	Lu	175		ug/L		378812	378811.928
	Tl	205	**0.039**	ug/L	20.821	2898	0.001
	Pb	208	**0.032**	ug/L	3.042	4554	0.002
	U	238	**-0.022**	ug/L	2.060	188	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		92.3			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		96.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.2			
	Sb	121					
	Sb	123					
>	Lu	175		93.6			
	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: 1202065073
Sample Date/Time: Monday, April 12, 2010 22:16:46
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\1202065073.206

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**57.737**	**ug/L**	3.887	8780	0.013
>	Sc	45		**ug/L**		659587	659586.622
	Cr	52	**52.022**	**ug/L**	1.358	158097	0.243
	Cr	53		**ug/L**		166944	0.143
	Mn	55	**53.222**	**ug/L**	3.421	305071	0.461
	Ni	60	**52.829**	**ug/L**	3.369	47722	0.072
>	Ge	74		**ug/L**		282376	282375.990
	As	75	**80.500**	**ug/L**	3.017	55658	0.198
	Se	77		**ug/L**		13615	0.030
	Se	82	**21.475**	**ug/L**	3.223	1498	0.005
	Kr	83		**ug/L**		90	0.000
	Mo	98	**50.503**	**ug/L**	2.256	109910	0.554
	Ag	107	**53.299**	**ug/L**	1.277	197951	0.999
	Cd	111	**10.906**	**ug/L**	3.451	10920	0.055
	Cd	114		**ug/L**		25141	0.127
>	In	115		**ug/L**		198077	198077.287
	Sb	121	**221.080**	**ug/L**	3.186	832545	4.204
	Sb	123		**ug/L**		656236	3.313
>	Lu	175		**ug/L**		390342	390342.341
	Tl	205	**84.253**	**ug/L**	2.954	1227180	3.136
	Pb	208	**40.990**	**ug/L**	1.995	1108583	2.831
	U	238	**49.521**	**ug/L**	1.967	1715802	4.394

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		93.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		95.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.9			
	Sb	121					
	Sb	123					
>	Lu	175		96.4			
	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: 1202065074
Sample Date/Time: Monday, April 12, 2010 22:21:22
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962585|5|prb
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\1202065074.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.018**	**ug/L**	140.526	16	-0.000
>	Sc	45		**ug/L**		676558	676557.734
	Cr	52	**-0.280**	**ug/L**	18.992	-3329	-0.001
	Cr	53		**ug/L**		99082	0.037
	Mn	55	**0.140**	**ug/L**	10.763	1891	0.001
	Ni	60	**0.033**	**ug/L**	52.940	120	0.000
>	Ge	74		**ug/L**		285073	285072.881
	As	75	**-0.397**	**ug/L**	102.312	-459	-0.001
	Se	77		**ug/L**		7140	0.007
	Se	82	**0.023**	**ug/L**	332.977	-2	0.000
	Kr	83		**ug/L**		82	-0.000
	Mo	98	**-0.013**	**ug/L**	33.730	114	-0.000
	Ag	107	**-0.004**	**ug/L**	24.156	61	-0.000
	Cd	111	**0.008**	**ug/L**	68.731	42	0.000
	Cd	114		**ug/L**		105	0.000
>	In	115		**ug/L**		205359	205359.495
	Sb	121	**-0.013**	**ug/L**	25.900	194	-0.000
	Sb	123		**ug/L**		150	-0.000
>	Lu	175		**ug/L**		395924	395924.129
	Tl	205	**1.772**	**ug/L**	8.934	28583	0.066
	Pb	208	**0.019**	**ug/L**	11.437	4402	0.001
	U	238	**-0.024**	**ug/L**	1.341	111	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		95.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		96.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.4			
	Sb	121					
	Sb	123					
>	Lu	175		97.8			
	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: QC Std 6
Sample Date/Time: Monday, April 12, 2010 22:30:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 6.209

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.504**	**ug/L**	8.396	8090	0.012
>	Sc	45		**ug/L**		695468	695468.280
	Cr	52	**50.338**	**ug/L**	1.650	161184	0.235
	Cr	53		**ug/L**		99761	0.034
	Mn	55	**51.417**	**ug/L**	1.920	310829	0.445
	Ni	60	**51.595**	**ug/L**	1.840	49152	0.071
>	Ge	74		**ug/L**		291628	291628.170
	As	75	**52.079**	**ug/L**	3.178	37121	0.128
	Se	77		**ug/L**		7821	0.009
	Se	82	**51.792**	**ug/L**	0.373	3735	0.013
	Kr	83		**ug/L**		91	0.000
	Mo	98	**49.844**	**ug/L**	4.504	112257	0.547
	Ag	107	**52.537**	**ug/L**	3.492	201933	0.985
	Cd	111	**51.158**	**ug/L**	2.823	52911	0.258
	Cd	114		**ug/L**		126378	0.616
>	In	115		**ug/L**		205053	205052.717
	Sb	121	**54.023**	**ug/L**	2.929	210798	1.027
	Sb	123		**ug/L**		164243	0.800
>	Lu	175		**ug/L**		405006	405005.980
	Tl	205	**48.384**	**ug/L**	2.757	731878	1.801
	Pb	208	**51.803**	**ug/L**	1.296	1452921	3.578
	U	238	**51.111**	**ug/L**	0.713	1837754	4.535

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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	101.007				
>	Sc	45		98.6			
	Cr	52	100.676				
	Cr	53					
	Mn	55	102.834				
	Ni	60	103.189				
>	Ge	74		99.0			
	As	75	104.158				
	Se	77					
	Se	82	103.585				
	Kr	83					
	Mo	98	99.688				
	Ag	107	105.073				
	Cd	111	102.317				
	Cd	114					
>	In	115		98.2			
	Sb	121	108.045				
	Sb	123					
>	Lu	175		100.0			
	Tl	205	96.767				
	Pb	208	103.605				
	U	238	102.221				

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: Monday, April 12, 2010 22:35:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 7.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.004**	**ug/L**	484.355	19	-0.000
>	Sc	45		**ug/L**		691133	691133.199
	Cr	52	**-0.218**	**ug/L**	30.855	-3201	-0.001
	Cr	53		**ug/L**		77096	0.002
	Mn	55	**-0.013**	**ug/L**	58.958	1012	-0.000
	Ni	60	**0.002**	**ug/L**	552.221	93	0.000
>	Ge	74		**ug/L**		290483	290483.251
	As	75	**0.152**	**ug/L**	78.782	-78	0.000
	Se	77		**ug/L**		4876	-0.001
	Se	82	**0.149**	**ug/L**	5.777	7	0.000
	Kr	83		**ug/L**		81	-0.000
	Mo	98	**0.023**	**ug/L**	25.199	194	0.000
	Ag	107	**0.001**	**ug/L**	245.012	82	0.000
	Cd	111	**0.006**	**ug/L**	141.114	40	0.000
	Cd	114		**ug/L**		74	-0.000
>	In	115		**ug/L**		204855	204854.693
	Sb	121	**0.051**	**ug/L**	4.327	445	0.001
	Sb	123		**ug/L**		348	0.001
>	Lu	175		**ug/L**		401978	401977.721
	Tl	205	**0.837**	**ug/L**	7.703	15016	0.031
	Pb	208	**-0.002**	**ug/L**	68.117	3903	-0.000
	U	238	**-0.002**	**ug/L**	79.555	915	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
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	
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	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		98.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.1			
	Sb	121					
	Sb	123					
>	Lu	175		99.3			
	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: Blank
Sample Date/Time: Tuesday, April 13, 2010 09:05:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\Blank.395

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		180813	
	Sb	121		ug/L		604	
	Sb	123		ug/L		492	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115					
	Sb	121					
	Sb	123					

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: Tuesday, April 13, 2010 09:08:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\Standard 1.396

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		180147	180146.549
	Sb	121	10.000	ug/L	12.601	34350	0.188
	Sb	123		ug/L		26835	0.147

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115					
	Sb	121					
	Sb	123					

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: Tuesday, April 13, 2010 09:10:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\Standard 2.397

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		169523	169522.817
	Sb	121	**100.108**	**ug/L**	16.205	355676	2.114
	Sb	123		**ug/L**		278723	1.654

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115					
	Sb	121					
	Sb	123					

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: Tuesday, April 13, 2010 09:12:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 1.398

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		178568	178568.397
	Sb	121	54.670	ug/L	9.863	205955	1.155
	Sb	123		ug/L		159945	0.897

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115		98.8			
	Sb	121	109.340				
	Sb	123					

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: Tuesday, April 13, 2010 09:15:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 2.399

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		179902	179902.488
	Sb	121	0.244	ug/L	27.593	1511	0.005
	Sb	123		ug/L		1125	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		99.5			
	Sb	121					
	Sb	123					

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: Tuesday, April 13, 2010 09:17:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 3.400

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		180295	180294.627
	Sb	121	3.058	ug/L	14.329	12195	0.065
	Sb	123		ug/L		9479	0.050

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		99.7			
	Sb	121	101.941				
	Sb	123					

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: Tuesday, April 13, 2010 09:19:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 4.401

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		173646	173645.971
	Sb	121	0.135	ug/L	26.709	1071	0.003
	Sb	123		ug/L		877	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		96.0			
	Sb	121					
	Sb	123					

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: Tuesday, April 13, 2010 09:21:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 5.402

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		173487	173486.695
	Sb	121	20.282	ug/L	11.925	74516	0.428
	Sb	123		ug/L		59081	0.340

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115		95.9			
	Sb	121	101.411				
	Sb	123					

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: Tuesday, April 13, 2010 09:24:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 6.403

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		187796	187796.250
|	Sb	121	52.957	ug/L	13.740	209165	1.118
⌊	Sb	123		ug/L		160343	0.856

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		103.9			
|	Sb	121	105.913				
⌊	Sb	123					

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: Tuesday, April 13, 2010 09:26:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 7.404

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		189372	189371.518
	Sb	121	**-0.036**	**ug/L**	32.430	488	-0.001
	Sb	123		**ug/L**		383	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		104.7			
	Sb	121					
	Sb	123					

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: 1202065070
Sample Date/Time: Tuesday, April 13, 2010 09:28:55
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\1202065070.405

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		181341	181341.308
	Sb	121	-0.043	ug/L	23.482	439	-0.001
	Sb	123		ug/L		358	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115		100.3			
	Sb	121					
	Sb	123					

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: 1202065071
Sample Date/Time: Tuesday, April 13, 2010 09:31:13
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\1202065071.406

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		181306	181305.703
	Sb	121	**54.443**	**ug/L**	14.033	207758	1.150
	Sb	123		**ug/L**		164234	0.907

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		100.3			
	Sb	121					
	Sb	123					

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: 248518001
Sample Date/Time: Tuesday, April 13, 2010 09:38:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\248518001.409

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		**ug/L**		180820	180819.622
|	Sb	121	**-0.108**	**ug/L**	2.693	192	-0.002
⌊	Sb	123		**ug/L**		144	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		100.0			
|	Sb	121					
⌊	Sb	123					

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: Tuesday, April 13, 2010 09:42:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 8.411

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		189845	189845.163
	Sb	121	**53.116**	**ug/L**	14.120	212149	1.122
	Sb	123		**ug/L**		163405	0.863

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		105.0			
	Sb	121	106.232				
	Sb	123					

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: Tuesday, April 13, 2010 09:45:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 9.412

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		193118	193118.426
	Sb	121	-0.060	ug/L	19.842	398	-0.001
	Sb	123		ug/L		283	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		106.8			
	Sb	121					
	Sb	123					

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: 1202065072
Sample Date/Time: Tuesday, April 13, 2010 09:49:44
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\1202065072.414

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		184390	184389.771
	Sb	121	**-0.117**	**ug/L**	3.074	158	-0.002
	Sb	123		**ug/L**		130	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		102.0			
	Sb	121					
	Sb	123					

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: 1202065073
Sample Date/Time: Tuesday, April 13, 2010 09:52:02
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962585|1|prb
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\1202065073.415

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		177073	177073.127
	Sb	121	**206.392**	**ug/L**	16.259	765685	4.359
	Sb	123		**ug/L**		612857	3.483

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115		97.9			
	Sb	121					
	Sb	123					

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: 1202065074
Sample Date/Time: Tuesday, April 13, 2010 09:54:20
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962585|5|prb
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\1202065074.416

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		186632	186632.365
	Sb	121	**-0.063**	**ug/L**	19.475	371	-0.001
	Sb	123		**ug/L**		293	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115		103.2			
	Sb	121					
	Sb	123					

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: Tuesday, April 13, 2010 09:58:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 6.418

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		186004	186004.311
	Sb	121	**53.969**	**ug/L**	8.312	212055	1.140
	Sb	123		**ug/L**		165022	0.887

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		102.9			
	Sb	121	107.938				
	Sb	123					

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: Tuesday, April 13, 2010 10:01:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb only.mth
Dataset File: C:\elandata\Dataset\100412\QC Std 7.419

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		201693	201692.772
	Sb	121	**-0.072**	**ug/L**	19.248	366	-0.002
	Sb	123		**ug/L**		294	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		111.5			
	Sb	121					
	Sb	123					

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\031310W1.SIF
Batch ID:
Results Data Set: 031310W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/13/2010 07:06:01**
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	0.0001	0.0003	07:07:03	Yes
2		[0.00]	0.0003	0.0003	0.0003	07:07:38	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0000				
%RSD:		0.00	3.76				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/13/2010 07:07:57**
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]	0.0024	0.0110	0.0026	07:08:57	Yes
2		[0.2]	0.0023	0.0104	0.0025	07:09:32	Yes
Mean:		[0.2]	0.0023				
SD:		0.0	0.0001				
%RSD:		0.0	3.43				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01159 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/13/2010 07:09:51**
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]	0.0056	0.0261	0.0059	07:10:52	Yes
2		[0.5]	0.0056	0.0259	0.0059	07:11:27	Yes
Mean:		[0.5]	0.0056				
SD:		0.0	0.0000				
%RSD:		0.0	0.01				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999927 Slope: 0.01128 Intercept: 0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/13/2010 07:11:46**
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]	0.0231	0.1060	0.0233	07:12:48	Yes
2		[2.0]	0.0232	0.1057	0.0235	07:13:23	Yes
Mean:		[2.0]	0.0231				
SD:		0.0	0.0001				
%RSD:		0.0	0.38				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999978 Slope: 0.01158 Intercept: -0.00004

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/13/2010 07:13:43**
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]	0.0576	0.2651	0.0579	07:14:44	Yes
2		[5.0]	0.0576	0.2650	0.0578	07:15:19	Yes
Mean:		[5.0]	0.0576				
SD:		0.0	0.0000				
%RSD:		0.0	0.08				

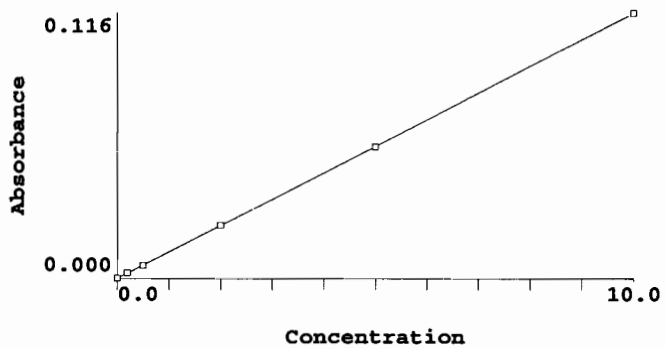
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999995 Slope: 0.01153 Intercept: -0.00001

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/13/2010 07:15:39**
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]	0.1155	0.5378	0.1158	07:16:40	Yes
2		[10.0]	0.1157	0.5387	0.1159	07:17:14	Yes
Mean:		[10.0]	0.1156				
SD:		0.0	0.0001				
%RSD:		0.0	0.08				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999998 Slope: 0.01156 Intercept: -0.00005



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	0.004	0.00	3.8
S0.2	0.0023	0.2	0.205	0.00	3.4
S0.5	0.0056	0.5	0.493	0.00	0.0
S2.0	0.0231	2.0	2.006	0.00	0.4

S5.0	0.0576	5.0	4.987	0.00	0.1
S10.0	0.1156	10.0	10.006	0.00	0.1

Correlation Coef.: 0.999998 Slope: 0.01156 Intercept: -0.00005

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/13/2010 07:17:33**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.116	5.116	0.0591	0.2724	0.0593	07:18:34	Yes
2	5.078	5.078	0.0586	0.2706	0.0589	07:19:10	Yes
Mean:	5.097	5.097	0.0589				
SD:	0.027	0.027	0.0003				
%RSD:	0.521	0.521	0.52				

QC value within limits for Hg 253.7 Recovery = 101.94%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/13/2010 07:19:29**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0001	-0.0006	0.0002	07:20:31	Yes
2	0.000	0.000	-0.0000	-0.0005	0.0002	07:21:06	Yes
Mean:	-0.001	-0.001	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	159.4	159.4	42.51				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/13/2010 07:21:25**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.198	0.198	0.0022	0.0107	0.0025	07:22:27	Yes
2	0.199	0.199	0.0023	0.0108	0.0025	07:23:02	Yes
Mean:	0.199	0.199	0.0022				
SD:	0.001	0.001	0.0000				
%RSD:	0.293	0.293	0.30				

QC value within limits for Hg 253.7 Recovery = 99.29%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 07:23:22**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0583	0.2704	0.0586	07:24:22	Yes
2	5.032	5.032	0.0581	0.2689	0.0584	07:24:57	Yes
Mean:	5.039	5.039	0.0582				
SD:	0.011	0.011	0.0001				
%RSD:	0.215	0.215	0.21				

QC value within limits for Hg 253.7 Recovery = 100.79%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 07:25:16**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	-0.0001	-0.0004	0.0002	07:26:17	Yes
2	0.006	0.006	0.0000	0.0001	0.0003	07:26:51	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	230.2	230.2	281.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202056683|959019|1 **Date Collected: 3/13/2010 07:27:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056683|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	-0.0003	0.0002	07:28:12	Yes
2	0.003	0.003	-0.0000	0.0001	0.0003	07:28:47	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	54.12	54.12	61.22				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 247669001|959019|1 **Date Collected: 3/13/2010 07:29:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 247669001|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.285	0.285	0.0033	0.0150	0.0035	07:30:09	Yes
2	0.291	0.291	0.0033	0.0151	0.0036	07:30:44	Yes
Mean:	0.288	0.288	0.0033				
SD:	0.004	0.004	0.0000				
%RSD:	1.257	1.257	1.28				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 247669002|959019|1 **Date Collected: 3/13/2010 07:31:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 247669002|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.429	0.429	0.0049	0.0230	0.0052	07:32:05	Yes
2	0.426	0.426	0.0049	0.0229	0.0051	07:32:40	Yes
Mean:	0.427	0.427	0.0049				
SD:	0.002	0.002	0.0000				
%RSD:	0.463	0.463	0.47				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202069597|964675|1 **Date Collected: 3/13/2010 07:32:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069597|964675|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202069601|964675|500

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	-0.0000	0.0005	0.0002	07:43:33	Yes
2	0.003	0.003	-0.0000	0.0008	0.0003	07:44:08	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	20.17	20.17	29.29				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 249148002|964675|100 **Date Collected: 3/13/2010 07:44:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 249148002|964675|100

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	0.0003	07:45:29	Yes
2	0.009	0.009	0.0001	0.0013	0.0003	07:46:04	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	51.00	51.00	144.96				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 07:46:23**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.999	4.999	0.0577	0.2686	0.0580	07:47:24	Yes
2	4.942	4.942	0.0571	0.2675	0.0573	07:47:59	Yes
Mean:	4.971	4.971	0.0574				
SD:	0.040	0.040	0.0005				
%RSD:	0.811	0.811	0.81				

QC value within limits for Hg 253.7 Recovery = 99.42%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 07:48:18**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.014	0.014	0.0001	0.0024	0.0004	07:49:18	Yes
2	0.017	0.017	0.0001	0.0032	0.0004	07:49:53	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.14	12.14	16.46				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202056673|959008|1 **Date Collected: 3/13/2010 07:50:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056673|959008|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	0.0018	0.0004	07:51:14	Yes
2	0.012	0.012	0.0001	0.0018	0.0004	07:51:49	Yes

Mean:	0.012	0.012	0.0001
SD:	0.000	0.000	0.0000
%RSD:	2.244	2.244	3.42

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 247635001|959008|1 **Date Collected: 3/13/2010 07:52:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 247635001|959008|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0037	0.0190	0.0040	07:53:10	Yes
2	0.324	0.324	0.0037	0.0191	0.0040	07:53:45	Yes
Mean:	0.324	0.324	0.0037				
SD:	0.001	0.001	0.0000				
%RSD:	0.162	0.162	0.16				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 247635002|959008|1 **Date Collected: 3/13/2010 07:54:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 247635002|959008|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.477	0.477	0.0055	0.0270	0.0057	07:55:06	Yes
2	0.473	0.473	0.0054	0.0260	0.0057	07:55:41	Yes
Mean:	0.475	0.475	0.0054				
SD:	0.003	0.003	0.0000				
%RSD:	0.602	0.602	0.61				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 1202068540|964196|1 **Date Collected: 3/13/2010 07:56:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068540|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0013	0.0003	07:57:03	Yes
2	0.010	0.010	0.0001	0.0015	0.0003	07:57:38	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.909	7.909	14.20				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 1202068541|964196|1 **Date Collected: 3/13/2010 07:57:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068541|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.302	2.302	0.0266	0.1234	0.0268	07:58:59	Yes
2	2.287	2.287	0.0264	0.1221	0.0266	07:59:34	Yes
Mean:	2.294	2.294	0.0265				
SD:	0.011	0.011	0.0001				
%RSD:	0.465	0.465	0.47				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 248380001|964196|1 **Date Collected: 3/13/2010 07:59:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 248380001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0020	0.0004	08:00:54	Yes
2	0.021	0.021	0.0002	0.0033	0.0005	08:01:28	Yes
Mean:	0.017	0.017	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	33.77	33.77	44.57				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248390001|964196|1 **Date Collected: 3/13/2010 08:01:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 248390001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0022	0.0004	08:02:48	Yes
2	0.016	0.016	0.0001	0.0021	0.0004	08:03:23	Yes
Mean:	0.014	0.014	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.65	13.65	19.08				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248402001|964196|1 **Date Collected: 3/13/2010 08:03:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 248402001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0028	0.0004	08:04:43	Yes
2	0.020	0.020	0.0002	0.0038	0.0004	08:05:18	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	30.84	30.84	41.23				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 248516001|964196|1 **Date Collected: 3/13/2010 08:05:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 248516001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0020	0.0003	08:06:38	Yes
2	0.004	0.004	-0.0000	0.0012	0.0003	08:07:12	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	67.34	67.34	164.84				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 248516002|964196|1 **Date Collected: 3/13/2010 08:07:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 248516002|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0014	0.0003	08:08:33	Yes
2	0.008	0.008	0.0000	0.0016	0.0003	08:09:07	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	26.39	26.39	73.83				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:09:27**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.004	5.004	0.0578	0.2733	0.0581	08:10:27	Yes
2	5.016	5.016	0.0579	0.2728	0.0582	08:11:02	Yes
Mean:	5.010	5.010	0.0579				
SD:	0.008	0.008	0.0001				
%RSD:	0.163	0.163	0.16				

QC value within limits for Hg 253.7 Recovery = 100.20%
All analyte(s) passed QC.

==========

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/13/2010 08:11:21
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0014	0.0003	08:12:22	Yes
2	0.009	0.009	0.0001	0.0015	0.0003	08:12:57	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.974	3.974	7.44				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 Autosampler Location: 32
Sample ID: 248518001|964196|1 Date Collected: 3/13/2010 08:13:16
Analyst: JXL Data Type: Original

Replicate Data: 248518001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0016	0.0003	08:14:17	Yes
2	0.008	0.008	0.0000	0.0019	0.0003	08:14:52	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	19.79	19.79	45.55				

==========

Sequence No.: 37 Autosampler Location: 33
Sample ID: 248523001|964196|1 Date Collected: 3/13/2010 08:15:12
Analyst: JXL Data Type: Original

Replicate Data: 248523001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0016	0.0003	08:16:13	Yes
2	0.005	0.005	0.0000	0.0015	0.0003	08:16:48	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	9.345	9.345	32.53				

==========

Sequence No.: 38 Autosampler Location: 34
Sample ID: 248533001|964196|1 Date Collected: 3/13/2010 08:17:07
Analyst: JXL Data Type: Original

Replicate Data: 248533001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0000	0.0017	0.0003	08:18:09	Yes

2	0.010	0.010	0.0001	0.0021	0.0003	08:18:43	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	22.64	22.64	43.29				

==========

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 248535001|964196|1 **Date Collected: 3/13/2010 08:19:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 248535001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0000	0.0018	0.0003	08:20:05	Yes
2	0.005	0.005	0.0000	0.0015	0.0003	08:20:40	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	23.87	23.87	64.80				

==========

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 248535002|964196|1 **Date Collected: 3/13/2010 08:21:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 248535002|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0014	0.0003	08:22:02	Yes
2	0.007	0.007	0.0000	0.0015	0.0003	08:22:37	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	25.70	25.70	78.23				

==========

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 248551001|964196|1 **Date Collected: 3/13/2010 08:22:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 248551001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0015	0.0003	08:23:59	Yes
2	0.006	0.006	0.0000	0.0014	0.0003	08:24:33	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	4.498	4.498	14.45				

==========

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 1202068542|964196|1 **Date Collected: 3/13/2010 08:24:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068542|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0015	0.0003	08:25:55	Yes
2	0.008	0.008	0.0000	0.0016	0.0003	08:26:30	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	22.94	22.94	59.43				

==========

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 1202068543|964196|1 **Date Collected: 3/13/2010 08:26:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068543|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.086	2.086	0.0241	0.1153	0.0243	08:27:50	Yes
2	2.102	2.102	0.0242	0.1155	0.0245	08:28:25	Yes
Mean:	2.094	2.094	0.0242				
SD:	0.011	0.011	0.0001				
%RSD:	0.523	0.523	0.52				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202068544|964196|5 **Date Collected: 3/13/2010 08:28:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068544|964196|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0016	0.0003	08:29:45	Yes
2	0.007	0.007	0.0000	0.0016	0.0003	08:30:20	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	22.97	22.97	46.36				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 248551002|964196|1 **Date Collected: 3/13/2010 08:30:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 248551002|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0012	0.0003	08:31:41	Yes
2	0.005	0.005	0.0000	0.0013	0.0003	08:32:15	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.023	5.023	38.58				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:32:35**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.139	5.139	0.0594	0.2801	0.0596	08:33:35	Yes
2	5.137	5.137	0.0593	0.2796	0.0596	08:34:10	Yes
Mean:	5.138	5.138	0.0593				
SD:	0.002	0.002	0.0000				
%RSD:	0.030	0.030	0.03				

QC value within limits for Hg 253.7 Recovery = 102.76%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 08:34:29**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0014	0.0003	08:35:30	Yes
2	0.007	0.007	0.0000	0.0013	0.0003	08:36:05	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	25.04	25.04	51.72				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **964195.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7470A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068541	Mercury working intermediate standard for LCS/MS	WHG100312-13	.2	mL
MS	1202068543	Mercury working intermediate standard for LCS/MS	WHG100312-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202068540 MB	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202068541 LCS	12-MAR-2010 15:10:00	Water	20	20	1	<2
248380001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248390001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248402001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248516001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248516002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248518001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248523001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248533001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248535001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248535002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248551001	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202068542 DUP (248551001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202068543 MS (248551001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202068544 SDILT (248551001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
248551002	12-MAR-2010 15:10:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1274391-1	NITRIC ACID	.5 mL
1276435-C	5% Potassium Persulfate	1.5 mL
1277238-C	5% KMnO4 solution	3 mL
WHG100312-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG100312-02	Mercury Working 1st Source CAL 0.5	50 uL
WHG100312-03	Mercury Working 1st Source CAL 2.0	200 uL

Comments:

Digestion Start Date: 12-MAR-10 15:10

Digestion End Date: 12-MAR-10 17:10

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **962579.0** Verified by: _____

Analyst: Bryan Davis

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065056	Metals Spike Mix I	UI1268741-01	.25	mL
LCS	1202065056	Metals Spike Mix II	UI1268744-06	.25	mL
MS	1202065058	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202065058	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202065055 MB	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065056 LCS	15-MAR-2010 09:30:00	Water	50	50	1	<2
248516001	15-MAR-2010 09:30:00	Water	50	50	1	<2
248516002	15-MAR-2010 09:30:00	Water	50	50	1	<2
248518001	15-MAR-2010 09:30:00	Water	50	50	1	<2
248523001	15-MAR-2010 09:30:00	Water	50	50	1	<2
248550001	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065057 DUP (248550001)	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065058 MS (248550001)	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065059 SDILT (248550001)	15-MAR-2010 09:30:00	Water	50	50	1	<2
248557001	15-MAR-2010 09:30:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	2.5 mL
1282566	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **962584.0** Verified by: _____

Analyst: Bryan Davis

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065071	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1268746-A	.5	mL
LCS	1202065071	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1268749-B	.5	mL
MS	1202065073	ICP-MS DOE liquid Spike Solution A	UI1268752-A	.5	mL
MS	1202065073	ICP-MS DOE Liquid Spike Solution B	UI1268755-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202065070 MB	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065071 LCS	15-MAR-2010 09:30:00	Water	50	50	1	<2
248516001	15-MAR-2010 09:30:00	Water	50	50	1	<2
248516002	15-MAR-2010 09:30:00	Water	50	50	1	<2
248518001	15-MAR-2010 09:30:00	Water	50	50	1	<2
248523001	15-MAR-2010 09:30:00	Water	50	50	1	<2
248550001	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065072 DUP (248550001)	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065073 MS (248550001)	15-MAR-2010 09:30:00	Water	50	50	1	<2
1202065074 SDILT (248550001)	15-MAR-2010 09:30:00	Water	50	50	1	<2
248557001	15-MAR-2010 09:30:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	2.5 mL
1282566	Nitric Acid CONC.	1 mL

Comments:

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: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

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

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-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
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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
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: 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:	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:	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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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

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

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: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
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

Standard Logbook

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
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: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
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
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zirconium	20 mg/L		

Serial ID: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 18-MAR-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: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
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: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
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: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
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: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
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		

Standard Logbook

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-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: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-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
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1268746-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

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

Serial ID: UI1268749-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-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

Serial ID: UI1268752-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis **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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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

Serial ID: UI1268755-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis **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

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
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

Standard Logbook

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
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: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
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: IHG100312-01 **Opened:** 12-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 12-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 13-MAR-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

Serial ID: IHG100312-02 **Opened:** 12-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 13-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Standard Logbook

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: WHG100312-01a **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-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.
IHG100312-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100312-02 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-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.
IHG100312-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100312-03 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100312-04 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100312-05 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-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.
IHG100312-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100312-06 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-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.
IHG100312-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100312-13 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/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: WI100330-42 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100330-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100330-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100330-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100330-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100330-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100330-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100330-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100330-43 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100330-44 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100330-45 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
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

Standard Logbook

Serial ID: WI100330-46 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
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
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

Standard Logbook

Serial ID: WI100330-47 **Opened:** 30-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 31-MAR-10 **Solvent :** 3%HCL &1%HNO3-1293083
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
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: WMS100412-04 **Opened:** 12-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 12-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 13-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100412-04A **Opened:** 12-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 12-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100412-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100412-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100412-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100412-05 **Opened:** 12-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 12-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100412-06 **Opened:** 12-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 12-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 13-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WMS100412-07 **Opened:** 12-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 12-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 13-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100412-08 **Opened:** 12-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 12-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 13-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

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

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

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

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

Standard Logbook

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

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-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: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-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%

Standard Logbook

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID: 1300209 **Opened:** 12-APR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 12-APR-10
Type: Reagent/Solvent **Expires:** 19-APR-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.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198

Method/Analysis Information

Product: **pH**

Analytical Batch: 961560 **Method:** SW9045C pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

Sample ID	Client ID
248517001	RE36-10-8292
1202062454	248511008(RE36-10-7444) Sample Duplicate (DUP)
1202062455	248511009(RE36-10-7448) Sample Duplicate (DUP)
1202062456	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-008 REV# 17.

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 Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

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: 248511008 (RE36-10-7444) and 248511009 (RE36-10-7448).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

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
The following samples from this sample group were received by the lab outside of the method specified holding time: 1202062454 (RE36-10-7444), 1202062455 (RE36-10-7448) and 248517001 (RE36-10-8292).

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.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	961286	**Method:**	SW9012A Cyanide and Total
Prep Batch :	961285	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248517001	RE36-10-8292
1202061949	Method Blank (MB)
1202061950	248517001(RE36-10-8292) Sample Duplicate (DUP)
1202061951	248527002(RE11-10-1739) Sample Duplicate (DUP)
1202061952	248517001(RE36-10-8292) Matrix Spike (MS)
1202061953	248527002(RE11-10-1739) Matrix Spike (MS)
1202061954	248517001(RE36-10-8292) Matrix Spike Duplicate (MSD)
1202061955	248527002(RE11-10-1739) Matrix Spike Duplicate (MSD)
1202061956	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: 248517001 (RE36-10-8292) and 248527002 (RE11-10-1739).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202061952 (RE36-10-8292).

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 relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits due to sample non-homogenity . 1202061952 (RE36-10-8292) and 1202061954 (RE36-10-8292).

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202061950 (RE36-10-8292) and 248517001 (RE36-10-8292). The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202061951 (RE11-10-1739).

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: 1202061956 (LCS).

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202061956 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation

The following DER was generated for this SDG: 808110 1202061952 (RE36-10-8292) and 1202061954 (RE36-10-8292).

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.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	968241	**Method:**	EPA 300.0 Nitrate in Soil
Prep Batch :	968239	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248517001	RE36-10-8292
1202078566	Method Blank (MB)
1202078567	248515001(RE36-10-7501) Sample Duplicate (DUP)
1202078568	248520011(RE36-10-8276) Sample Duplicate (DUP)
1202078569	248515001(RE36-10-7501) Matrix Spike (MS)
1202078570	248520011(RE36-10-8276) Matrix Spike (MS)
1202078571	248515001(RE36-10-7501) Matrix Spike Duplicate (MSD)
1202078572	248520011(RE36-10-8276) Matrix Spike Duplicate (MSD)
1202078573	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-086 REV# 17.

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 Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

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: 248515001 (RE36-10-7501) and 248520011 (RE36-10-8276).

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 RPD between the sample and its duplicate met the acceptance limits.

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 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.

Manual Integrations
Manual integrations were not required for the samples in 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: Nick Cole A. Elmore **Date:** 3.29.10

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: 10-2198 GEL Work Order: 248517

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 Nick Cole A. Elmore 3-29-10

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: March 27, 2010

Client SDG: 10-2198

Client Sample ID:	RE36-10-8292	Project:	LANL01004
Sample ID:	248517001	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-FEB-10 12:00		
Receive Date:	03-MAR-10		
Collector:	Client		
Moisture:	22.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 19.2C	H	6.69	0.010	0.100	SU	1	TXT1 03/05/10	1728	961560	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	257	79.4	292	ug/kg	1	AXC2 03/11/10	1703	961286	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		3.28	0.385	1.28	mg/kg	1	GXM 03/25/10 3	0925	968241	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/24/10	1411	968239
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1418	961285

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 27, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 248517

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Electrode Analysis											
Batch 961560											
QC1202062454 248511008 DUP											
pH		H	6.47	H	6.43	SU	0.620		(0%-10%)	TXT1	03/05/10 16:48
QC1202062455 248511009 DUP											
pH		H	7.68	H	7.76	SU	1.04		(0%-10%)		03/05/10 16:53
QC1202062456 LCS											
pH	7.00				6.95	SU		99.3	(95%-105%)		03/05/10 16:43
Flow Injection Analysis											
Batch 961286											
QC1202061950 248517001 DUP											
Cyanide, Total		J	257		418	ug/kg	47.9 ^		(+/-321)	AXC2	03/11/10 17:04
QC1202061951 248527002 DUP											
Cyanide, Total		U	ND	J	108	ug/kg	200		(+/-241)		03/11/10 17:11
QC1202061956 LCS											
Cyanide, Total	67900				65800	ug/kg		96.8	(32%-157%)		03/11/10 18:51
QC1202061949 MB											
Cyanide, Total				U	250	ug/kg					03/11/10 17:01
QC1202061952 248517001 MS											
Cyanide, Total	5940	J	257		3030	ug/kg		46.7	(26%-158%)		03/11/10 17:08
QC1202061953 248527002 MS											
Cyanide, Total	5370	U	ND		4190	ug/kg		77.4	(26%-158%)		03/11/10 17:12
QC1202061954 248517001 MSD											
Cyanide, Total	5730	J	257		4990	ug/kg	48.9*	82.6	(0%-30%)		03/11/10 17:09
QC1202061955 248527002 MSD											
Cyanide, Total	5270	U	ND		4560	ug/kg	8.48	85.8	(0%-30%)		03/11/10 17:12
Ion Chromatography											
Batch 968241											
QC1202078567 248515001 DUP											
Nitrate-N		U	ND	U	ND	mg/kg	N/A			GXM3	03/25/10 06:55
QC1202078568 248520011 DUP											
Nitrate-N			1.73		1.73	mg/kg	0.0676 ^		(+/-1.17)		03/25/10 17:22
QC1202078573 LCS											
Nitrate-N	50.0				48.1	mg/kg		96.2	(90%-110%)		03/25/10 05:55
QC1202078566 MB											
Nitrate-N				U	1.00	mg/kg					03/25/10 05:25
QC1202078569 248515001 MS											
Nitrate-N	65.8	U	ND		61.7	mg/kg		93.8	(90%-110%)		03/25/10 07:25
QC1202078570 248520011 MS											
Nitrate-N	58.6		1.73		56.0	mg/kg		92.7	(90%-110%)		03/25/10 17:51
QC1202078571 248515001 MSD											
Nitrate-N	65.8	U	ND		62.3	mg/kg	1.03	94.7	(0%-20%)		03/25/10 07:55
QC1202078572 248520011 MSD											
Nitrate-N	58.6		1.73		56.0	mg/kg	0.0502	92.7	(0%-20%)		03/25/10 18:21

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

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
JNX	Non Calibrated Compound
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 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
UJ	Compound cannot be extracted
UJ	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

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

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: 27-MAR-2010 13:01

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-2198

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	**11-MAR-2010 16:25:47**	**OM_3-11-2010_16-17-08**	**146**	**150**	**97.3**	**(90%-110%)**	**Yes**
CCV	11-MAR-2010 16:52:29	OM_3-11-2010_16-17-08	106	100	106	(90%-110%)	Yes
CCV	11-MAR-2010 17:04:53	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 17:17:24	OM_3-11-2010_16-17-08	106	100	106	(90%-110%)	Yes
CCV	11-MAR-2010 18:45:10	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:52:24	OM_3-11-2010_16-17-08	108	100	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**11-MAR-2010 16:27:38**	**OM_3-11-2010_16-17-08**	**-0.946**	**10**	**Yes**
CCB	11-MAR-2010 16:54:20	OM_3-11-2010_16-17-08	-1.18	10	Yes
CCB	11-MAR-2010 17:06:44	OM_3-11-2010_16-17-08	-1.02	10	Yes
CCB	11-MAR-2010 17:19:14	OM_3-11-2010_16-17-08	-1.03	10	Yes
CCB	11-MAR-2010 18:47:01	OM_3-11-2010_16-17-08	-0.623	10	Yes
CCB	11-MAR-2010 18:54:14	OM_3-11-2010_16-17-08	-1.15	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 27-MAR-2010 13:01

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2198

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**25-MAR-2010 04:26:00**	**100325**	**4.8179**	**5**	**96.4**	**(90%-110%)**	**Yes**
CCV	25-MAR-2010 10:24:00	100325	7.521	7.5	100	(90%-110%)	Yes
CCV	25-MAR-2010 15:53:00	100325	4.7985	5	96	(90%-110%)	Yes
CCV	25-MAR-2010 19:21:00	100325	7.518	7.5	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**25-MAR-2010 04:55:00**	**100325**	**0**	**0.1**	**Yes**
CCB	25-MAR-2010 10:54:00	100325	0	0.1	Yes
CCB	25-MAR-2010 16:23:00	100325	0	0.1	Yes
CCB	25-MAR-2010 19:51:00	100325	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **961285.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202061956	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202061952	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202061953	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202061954	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202061955	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202061949 MB	11-MAR-2010 14:18:00	Soil	0.5	25	50	>12
1202061956 LCS	11-MAR-2010 14:18:00	Soil	0.25	25	100	>12
248517001	11-MAR-2010 14:18:00	Soil	0.55	25	45.45455	>12
1202061950 DUP (248517001)	11-MAR-2010 14:18:00	Soil	0.5	25	50	>12
1202061952 MS (248517001)	11-MAR-2010 14:18:00	Soil	0.54	25	46.2963	>12
1202061954 MSD (248517001)	11-MAR-2010 14:18:00	Soil	0.56	25	44.64286	>12
248527002	11-MAR-2010 14:18:00	Soil	0.57	25	43.85965	>12
1202061951 DUP (248527002)	11-MAR-2010 14:18:00	Soil	0.59	25	42.37288	>12
1202061953 MS (248527002)	11-MAR-2010 14:18:00	Soil	0.53	25	47.16981	>12
1202061955 MSD (248527002)	11-MAR-2010 14:18:00	Soil	0.54	25	46.2963	>12
248527003	11-MAR-2010 14:18:00	Soil	0.5	25	50	>12
248527004	11-MAR-2010 14:18:00	Soil	0.53	25	47.16981	>12
248527005	11-MAR-2010 14:18:00	Soil	0.54	25	46.2963	>12
248527006	11-MAR-2010 14:18:00	Soil	0.52	25	48.07692	>12
248527007	11-MAR-2010 14:18:00	Soil	0.59	25	42.37288	>12
248527008	11-MAR-2010 14:18:00	Soil	0.55	25	45.45455	>12
248527009	11-MAR-2010 14:18:00	Soil	0.59	25	42.37288	>12
248527010	11-MAR-2010 14:18:00	Soil	0.59	25	42.37288	>12
248527011	11-MAR-2010 14:18:00	Soil	0.57	25	43.85965	>12
248527012	11-MAR-2010 14:18:00	Soil	0.54	25	46.2963	>12
248527013	11-MAR-2010 14:18:00	Soil	0.52	25	48.07692	>12

Prep Logbook

Batch ID: **961285.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202061956	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202061952	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202061953	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202061954	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202061955	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248527014	11-MAR-2010 14:18:00	Soil	0.51	25	49.01961	>12
248527015	11-MAR-2010 14:18:00	Soil	0.59	25	42.37288	>12
248527016	11-MAR-2010 14:18:00	Soil	0.51	25	49.01961	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100310-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/11/2010 16:18:39	OM_3-11-2010_16-17-08
150 ppb		1	axc2	3/11/2010 16:19:30	OM_3-11-2010_16-17-08
100 ppb		1	axc2	3/11/2010 16:20:23	OM_3-11-2010_16-17-08
50 ppb		1	axc2	3/11/2010 16:21:16	OM_3-11-2010_16-17-08
10 ppb		1	axc2	3/11/2010 16:22:09	OM_3-11-2010_16-17-08
CRDL 5.0 ppb		1	axc2	3/11/2010 16:23:03	OM_3-11-2010_16-17-08
ICAL-00		1	axc2	3/11/2010 16:23:57	OM_3-11-2010_16-17-08
ICV		1	axc2	3/11/2010 16:25:47	OM_3-11-2010_16-17-08
ICB		1	axc2	3/11/2010 16:27:38	OM_3-11-2010_16-17-08
CRDL		1	axc2	3/11/2010 16:29:27	OM_3-11-2010_16-17-08
1202061957	961288	1	axc2	3/11/2010 16:31:17	OM_3-11-2010_16-17-08
1202061964	961288	25	axc2	3/11/2010 16:32:10	OM_3-11-2010_16-17-08
248520001	961288	1	axc2	3/11/2010 16:33:03	OM_3-11-2010_16-17-08
1202061958	961288	1	axc2	3/11/2010 16:33:56	OM_3-11-2010_16-17-08
1202061960	961288	1	axc2	3/11/2010 16:34:49	OM_3-11-2010_16-17-08
1202061962*	961288	1	axc2	3/11/2010 16:35:42	OM_3-11-2010_16-17-08
248520002	961288	1	axc2	3/11/2010 16:36:34	OM_3-11-2010_16-17-08
1202061959	961288	1	axc2	3/11/2010 16:37:27	OM_3-11-2010_16-17-08
1202061961	961288	1	axc2	3/11/2010 16:38:19	OM_3-11-2010_16-17-08
1202061963	961288	1	axc2	3/11/2010 16:39:12	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 16:40:04	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 16:41:54	OM_3-11-2010_16-17-08
248520003	961288	1	axc2	3/11/2010 16:43:43	OM_3-11-2010_16-17-08
248520004	961288	1	axc2	3/11/2010 16:44:34	OM_3-11-2010_16-17-08
248520005	961288	1	axc2	3/11/2010 16:45:27	OM_3-11-2010_16-17-08
248520006	961288	1	axc2	3/11/2010 16:46:18	OM_3-11-2010_16-17-08
248520007	961288	1	axc2	3/11/2010 16:47:10	OM_3-11-2010_16-17-08
248520008	961288	1	axc2	3/11/2010 16:48:03	OM_3-11-2010_16-17-08
248520009	961288	1	axc2	3/11/2010 16:48:57	OM_3-11-2010_16-17-08
248520010	961288	1	axc2	3/11/2010 16:49:50	OM_3-11-2010_16-17-08
248520011	961288	1	axc2	3/11/2010 16:50:44	OM_3-11-2010_16-17-08
248549001	961288	1	axc2	3/11/2010 16:51:37	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 16:52:29	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 16:54:20	OM_3-11-2010_16-17-08
1202061962	961288	1	axc2	3/11/2010 16:56:08	OM_3-11-2010_16-17-08
248549002	961288	1	axc2	3/11/2010 16:57:01	OM_3-11-2010_16-17-08
248549003	961288	1	axc2	3/11/2010 16:57:55	OM_3-11-2010_16-17-08
248549004	961288	1	axc2	3/11/2010 16:58:47	OM_3-11-2010_16-17-08
248549005	961288	1	axc2	3/11/2010 16:59:40	OM_3-11-2010_16-17-08
248549006	961288	1	axc2	3/11/2010 17:00:32	OM_3-11-2010_16-17-08
1202061949	961286	1	axc2	3/11/2010 17:01:25	OM_3-11-2010_16-17-08
1202061956*	961286	25	axc2	3/11/2010 17:02:16	OM_3-11-2010_16-17-08
248517001	961286	1	axc2	3/11/2010 17:03:09	OM_3-11-2010_16-17-08
1202061950	961286	1	axc2	3/11/2010 17:04:01	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 17:04:53	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 17:06:44	OM_3-11-2010_16-17-08
1202061952	961286	1	axc2	3/11/2010 17:08:31	OM_3-11-2010_16-17-08
1202061954	961286	1	axc2	3/11/2010 17:09:25	OM_3-11-2010_16-17-08
248527002	961286	1	axc2	3/11/2010 17:10:19	OM_3-11-2010_16-17-08
1202061951	961286	1	axc2	3/11/2010 17:11:13	OM_3-11-2010_16-17-08
1202061953	961286	1	axc2	3/11/2010 17:12:06	OM_3-11-2010_16-17-08
1202061955	961286	1	axc2	3/11/2010 17:12:59	OM_3-11-2010_16-17-08
248527003	961286	1	axc2	3/11/2010 17:13:52	OM_3-11-2010_16-17-08
248527004	961286	1	axc2	3/11/2010 17:14:46	OM_3-11-2010_16-17-08
248527005	961286	1	axc2	3/11/2010 17:15:39	OM_3-11-2010_16-17-08
248527006	961286	1	axc2	3/11/2010 17:16:31	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 17:17:24	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 17:19:14	OM_3-11-2010_16-17-08

248527007	961286	1	axc2	3/11/2010	17:21:04	OM_3-11-2010_16-17-08
248527008	961286	1	axc2	3/11/2010	17:21:55	OM_3-11-2010_16-17-08
248527009	961286	1	axc2	3/11/2010	17:22:48	OM_3-11-2010_16-17-08
248527010	961286	1	axc2	3/11/2010	17:23:41	OM_3-11-2010_16-17-08
248527011	961286	1	axc2	3/11/2010	17:24:32	OM_3-11-2010_16-17-08
248527012	961286	1	axc2	3/11/2010	17:25:24	OM_3-11-2010_16-17-08
248527013	961286	1	axc2	3/11/2010	17:26:18	OM_3-11-2010_16-17-08
248527014	961286	1	axc2	3/11/2010	17:27:13	OM_3-11-2010_16-17-08
248527015	961286	1	axc2	3/11/2010	17:28:06	OM_3-11-2010_16-17-08
248527016	961286	1	axc2	3/11/2010	17:29:00	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:29:52	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:31:43	OM_3-11-2010_16-17-08
1202061933	961281	1	axc2	3/11/2010	17:33:32	OM_3-11-2010_16-17-08
1202061940	961281	25	axc2	3/11/2010	17:34:25	OM_3-11-2010_16-17-08
248511001	961281	1	axc2	3/11/2010	17:35:18	OM_3-11-2010_16-17-08
1202061934	961281	1	axc2	3/11/2010	17:36:11	OM_3-11-2010_16-17-08
1202061936	961281	1	axc2	3/11/2010	17:37:04	OM_3-11-2010_16-17-08
1202061938	961281	1	axc2	3/11/2010	17:37:57	OM_3-11-2010_16-17-08
248511002	961281	1	axc2	3/11/2010	17:38:50	OM_3-11-2010_16-17-08
1202061935	961281	1	axc2	3/11/2010	17:39:42	OM_3-11-2010_16-17-08
1202061937	961281	1	axc2	3/11/2010	17:40:35	OM_3-11-2010_16-17-08
1202061939	961281	1	axc2	3/11/2010	17:41:27	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:42:19	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:44:10	OM_3-11-2010_16-17-08
248511003	961281	1	axc2	3/11/2010	17:45:58	OM_3-11-2010_16-17-08
248511004	961281	1	axc2	3/11/2010	17:46:53	OM_3-11-2010_16-17-08
248511005	961281	1	axc2	3/11/2010	17:47:46	OM_3-11-2010_16-17-08
248511006	961281	1	axc2	3/11/2010	17:48:41	OM_3-11-2010_16-17-08
248511007	961281	1	axc2	3/11/2010	17:49:35	OM_3-11-2010_16-17-08
248511008	961281	1	axc2	3/11/2010	17:50:28	OM_3-11-2010_16-17-08
248511009	961281	1	axc2	3/11/2010	17:51:22	OM_3-11-2010_16-17-08
248511010	961281	1	axc2	3/11/2010	17:52:16	OM_3-11-2010_16-17-08
248511011	961281	1	axc2	3/11/2010	17:53:08	OM_3-11-2010_16-17-08
248511012	961281	1	axc2	3/11/2010	17:54:01	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:54:54	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:56:45	OM_3-11-2010_16-17-08
248511013	961281	1	axc2	3/11/2010	17:58:34	OM_3-11-2010_16-17-08
248511014	961281	1	axc2	3/11/2010	17:59:27	OM_3-11-2010_16-17-08
248511015	961281	1	axc2	3/11/2010	18:00:19	OM_3-11-2010_16-17-08
248511016	961281	1	axc2	3/11/2010	18:01:12	OM_3-11-2010_16-17-08
248511017	961281	1	axc2	3/11/2010	18:02:04	OM_3-11-2010_16-17-08
248511018	961281	1	axc2	3/11/2010	18:02:57	OM_3-11-2010_16-17-08
248511019	961281	1	axc2	3/11/2010	18:03:50	OM_3-11-2010_16-17-08
248511020	961281	1	axc2	3/11/2010	18:04:45	OM_3-11-2010_16-17-08
1202064160	962268	1	axc2	3/11/2010	18:05:39	OM_3-11-2010_16-17-08
1202064170	962268	1	axc2	3/11/2010	18:06:33	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:07:26	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:09:16	OM_3-11-2010_16-17-08
248638001	962268	1	axc2	3/11/2010	18:11:06	OM_3-11-2010_16-17-08
1202064161	962268	1	axc2	3/11/2010	18:11:59	OM_3-11-2010_16-17-08
1202064164	962268	1	axc2	3/11/2010	18:12:52	OM_3-11-2010_16-17-08
1202064167	962268	1	axc2	3/11/2010	18:13:46	OM_3-11-2010_16-17-08
248685001	962268	1	axc2	3/11/2010	18:14:39	OM_3-11-2010_16-17-08
248685002	962268	1	axc2	3/11/2010	18:15:32	OM_3-11-2010_16-17-08
248697001	962268	1	axc2	3/11/2010	18:16:25	OM_3-11-2010_16-17-08
248697002	962268	1	axc2	3/11/2010	18:17:18	OM_3-11-2010_16-17-08
248697003	962268	1	axc2	3/11/2010	18:18:10	OM_3-11-2010_16-17-08
248697004	962268	1	axc2	3/11/2010	18:19:03	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:19:56	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:21:46	OM_3-11-2010_16-17-08

248719001	962268	1	axc2	3/11/2010	18:23:35	OM_3-11-2010_16-17-08
248719002	962268	1	axc2	3/11/2010	18:24:30	OM_3-11-2010_16-17-08
248736002	962268	1	axc2	3/11/2010	18:25:24	OM_3-11-2010_16-17-08
248778001	962268	1	axc2	3/11/2010	18:26:18	OM_3-11-2010_16-17-08
248786001*	962268	1	axc2	3/11/2010	18:27:13	OM_3-11-2010_16-17-08
1202064163*	962268	1	axc2	3/11/2010	18:28:07	OM_3-11-2010_16-17-08
1202064166*	962268	1	axc2	3/11/2010	18:29:01	OM_3-11-2010_16-17-08
1202064169*	962268	1	axc2	3/11/2010	18:29:55	OM_3-11-2010_16-17-08
248799001	962268	1	axc2	3/11/2010	18:30:48	OM_3-11-2010_16-17-08
248805001	962268	1	axc2	3/11/2010	18:31:42	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:32:34	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:34:25	OM_3-11-2010_16-17-08
1202064162	962268	1	axc2	3/11/2010	18:36:14	OM_3-11-2010_16-17-08
1202064165	962268	1	axc2	3/11/2010	18:37:07	OM_3-11-2010_16-17-08
1202064168	962268	1	axc2	3/11/2010	18:38:00	OM_3-11-2010_16-17-08
248805003	962268	1	axc2	3/11/2010	18:38:53	OM_3-11-2010_16-17-08
248839001	962268	1	axc2	3/11/2010	18:39:46	OM_3-11-2010_16-17-08
248839002	962268	1	axc2	3/11/2010	18:40:39	OM_3-11-2010_16-17-08
248861001	962268	1	axc2	3/11/2010	18:41:34	OM_3-11-2010_16-17-08
248861002	962268	1	axc2	3/11/2010	18:42:29	OM_3-11-2010_16-17-08
248736002	962268	10	axc2	3/11/2010	18:43:23	OM_3-11-2010_16-17-08
248786001	962268	1	axc2	3/11/2010	18:44:18	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:45:10	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:47:01	OM_3-11-2010_16-17-08
1202064163	962268	1	axc2	3/11/2010	18:48:51	OM_3-11-2010_16-17-08
1202064166	962268	1	axc2	3/11/2010	18:49:45	OM_3-11-2010_16-17-08
1202064169	962268	1	axc2	3/11/2010	18:50:39	OM_3-11-2010_16-17-08
1202061956	961286	25	axc2	3/11/2010	18:51:31	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:52:24	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:54:14	OM_3-11-2010_16-17-08

Author: axc2 Date : 3/11/2010

Original Run Filename: OM_3-11-2010_16-17-08.OMN created 3/11/2010 16:17:08
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-11-2010_16-17-08.OMN last modified 3/11/2010 18:55:19
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
WCN100311-01	1	S1	200	10.2	3/11/2010@16:18:39			200 ppb
WCN100311-02	1	S2	150	7.64	3/11/2010@16:19:30			150 ppb
WCN100311-03	1	S3	100	5.21	3/11/2010@16:20:23			100 ppb
WCN100311-04	1	S4	50.0	2.71	3/11/2010@16:21:16			50 ppb
WCN100311-05	1	S5	10.0	0.668	3/11/2010@16:22:09			10 ppb
WCN100311-06	1	S6	5.00	0.372	3/11/2010@16:23:03			CRDL 5.0 ppb
WCN100311-08	1	S7	0.00	0.0704	3/11/2010@16:23:57			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99994 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100311-07	1	S8	146	7.51	3/11/2010@16:25:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100311-08	1	S7	-0.946	0.0856	3/11/2010@16:27:38			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.946 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.946 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100311-06	1	S6	5.52	0.411	3/11/2010@16:29:27			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.52 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.52 > 2.50					
		Message	Pass					
		Action	None					
1202061957|961288|MB	1	1	-1.65	0.0501	3/11/2010@16:31:17			
1202061964||LCS	1	2	18.0	1.04	3/11/2010@16:32:10		25.00	
248520001	1	3	3.00	0.284	3/11/2010@16:33:03			
1202061958||DUP	1	4	3.06	0.287	3/11/2010@16:33:56			
1202061960||MS	1	5	38.6	2.08	3/11/2010@16:34:49			
1202061962||MSD	1	6	7.88	0.530	3/11/2010@16:35:42			
248520002	1	7	16.2	0.950	3/11/2010@16:36:34			
1202061959||DUP	1	8	23.4	1.31	3/11/2010@16:37:27			
1202061961||MS	1	9	59.4	3.12	3/11/2010@16:38:19			
1202061963||MSD	1	10	63.5	3.33	3/11/2010@16:39:12			
WCN100311-03	1	S3	105	5.42	3/11/2010@16:40:04			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					
WCN100311-08	1	S7	-1.15	0.0753	3/11/2010@16:41:54			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248520003	1	11	6.30	0.451	3/11/2010@16:43:43			
248520004	1	12	23.1	1.29	3/11/2010@16:44:34			
248520005	1	13	6.76	0.473	3/11/2010@16:45:27			
248520006	1	14	2.15	0.241	3/11/2010@16:46:18			
248520007	1	15	16.8	0.981	3/11/2010@16:47:10			
248520008	1	16	7.48	0.510	3/11/2010@16:48:03			
248520009	1	17	6.44	0.457	3/11/2010@16:48:57			
248520010	1	18	5.87	0.429	3/11/2010@16:49:50			
248520011	1	19	9.72	0.623	3/11/2010@16:50:44			
248549001	1	20	-1.77	0.0439	3/11/2010@16:51:37			
WCN100311-03	1	S3	106	5.47	3/11/2010@16:52:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.18	0.0738	3/11/2010@16:54:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.18 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.18 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202061962||MSD	1	6	39.9	2.14	3/11/2010@16:56:08			
248549002	1	21	-1.77	0.0440	3/11/2010@16:57:01			
248549003	1	22	-1.69	0.0479	3/11/2010@16:57:55			
248549004	1	23	-1.69	0.0483	3/11/2010@16:58:47			
248549005	1	24	-1.77	0.0443	3/11/2010@16:59:40			
248549006	1	25	-1.23	0.0714	3/11/2010@17:00:32			
1202061949|961286|MB	1	26	-1.96	0.0344	3/11/2010@17:01:25			
1202061956||LCS	1	27	12.1	0.745	3/11/2010@17:02:16		25.00	
248517001	1	28	4.40	0.355	3/11/2010@17:03:09			
1202061950||DUP	1	29	6.52	0.462	3/11/2010@17:04:01			
WCN100311-03	1	S3	107	5.50	3/11/2010@17:04:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.02	0.0816	3/11/2010@17:06:44			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.02 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202061952||MS	1	30	51.0	2.70	3/11/2010@17:08:31			
1202061954||MSD	1	31	87.1	4.52	3/11/2010@17:09:25			
248527002	1	32	0.589	0.163	3/11/2010@17:10:19			
1202061951||DUP	1	33	2.24	0.246	3/11/2010@17:11:13			
1202061953||MS	1	34	77.9	4.06	3/11/2010@17:12:06			
1202061955||MSD	1	35	86.4	4.48	3/11/2010@17:12:59			
248527003	1	36	-0.0758	0.129	3/11/2010@17:13:52			
248527004	1	37	-1.69	0.0479	3/11/2010@17:14:46			
248527005	1	38	-2.12	0.0267	3/11/2010@17:15:39			
248527006	1	39	-2.11	0.0268	3/11/2010@17:16:31			
WCN100311-03	1	S3	106	5.46	3/11/2010@17:17:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.03	0.0814	3/11/2010@17:19:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248527007	1	40	-0.0659	0.130	3/11/2010@17:21:04			
248527008	1	41	0.415	0.154	3/11/2010@17:21:55			
248527009	1	42	-2.53	0.00599	3/11/2010@17:22:48			
248527010	1	43	-1.32	0.0670	3/11/2010@17:23:41			
248527011	1	44	-1.51	0.0572	3/11/2010@17:24:32			
248527012	1	45	-1.76	0.0445	3/11/2010@17:25:24			
248527013	1	46	-0.984	0.0837	3/11/2010@17:26:18			
248527014	1	47	-1.98	0.0337	3/11/2010@17:27:13			
248527015	1	48	-1.88	0.0385	3/11/2010@17:28:06			
248527016	1	49	-0.201	0.123	3/11/2010@17:29:00			
WCN100311-03	1	S3	106	5.49	3/11/2010@17:29:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.04	0.0811	3/11/2010@17:31:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1202061933|961281|MB	1	50	-2.14	0.0257	3/11/2010@17:33:32			
1202061940||LCS	1	51	25.5	1.42	3/11/2010@17:34:25		25.00	
248511001	1	52	9.89	0.631	3/11/2010@17:35:18			
1202061934||DUP	1	53	11.3	0.701	3/11/2010@17:36:11			
1202061936||MS	1	54	103	5.30	3/11/2010@17:37:04			
1202061938||MSD	1	55	118	6.07	3/11/2010@17:37:57			
248511002	1	56	1.23	0.195	3/11/2010@17:38:50			
1202061935||DUP	1	57	3.46	0.307	3/11/2010@17:39:42			
1202061937||MS	1	58	94.9	4.91	3/11/2010@17:40:35			
1202061939||MSD	1	59	88.8	4.61	3/11/2010@17:41:27			
WCN100311-03	1	S3	108	5.56	3/11/2010@17:42:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-3.25	-0.0302	3/11/2010@17:44:10			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-3.25 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-3.25 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248511003	1	60	0.545	0.161	3/11/2010@17:45:58			
248511004	1	61	41.2	2.21	3/11/2010@17:46:53			
248511005	1	62	9.25	0.599	3/11/2010@17:47:46			
248511006	1	63	10.9	0.683	3/11/2010@17:48:41			
248511007	1	64	1.48	0.208	3/11/2010@17:49:35			
248511008	1	65	5.88	0.429	3/11/2010@17:50:28			
248511009	1	66	16.7	0.973	3/11/2010@17:51:22			
248511010	1	67	25.4	1.41	3/11/2010@17:52:16			
248511011	1	68	5.04	0.387	3/11/2010@17:53:08			
248511012	1	69	68.8	3.60	3/11/2010@17:54:01			
WCN100311-03	1	S3	108	5.56	3/11/2010@17:54:54			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-0.875	0.0892	3/11/2010@17:56:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.875 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.875 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248511013	1	70	17.0	0.990	3/11/2010@17:58:34			
248511014	1	71	3.20	0.294	3/11/2010@17:59:27			
248511015	1	72	1.31	0.199	3/11/2010@18:00:19			
248511016	1	73	4.92	0.381	3/11/2010@18:01:12			
248511017	1	74	1.34	0.201	3/11/2010@18:02:04			
248511018	1	75	-0.129	0.127	3/11/2010@18:02:57			
248511019	1	76	-0.510	0.108	3/11/2010@18:03:50			
248511020	1	77	2.83	0.276	3/11/2010@18:04:45			

1202064160|962268|MB	1	78	-1.64	0.0508	3/11/2010@18:05:39			
1202064170||LCS	1	79	54.8	2.89	3/11/2010@18:06:33			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:07:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.32	0.0667	3/11/2010@18:09:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.32 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.32 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248638001	1	80	-2.08	0.0287	3/11/2010@18:11:06			
1202064161||DUP	1	81	-1.44	0.0607	3/11/2010@18:11:59			
1202064164||MS	1	82	103	5.32	3/11/2010@18:12:52			
1202064167||MSD	1	83	82.4	4.28	3/11/2010@18:13:46			
248685001	1	84	-1.85	0.0401	3/11/2010@18:14:39			
248685002	1	85	-1.89	0.0380	3/11/2010@18:15:32			
248697001	1	86	-1.97	0.0339	3/11/2010@18:16:25			
248697002	1	87	-2.87	-0.0112	3/11/2010@18:17:18			
248697003	1	88	-1.96	0.0344	3/11/2010@18:18:10			
248697004	1	89	-2.14	0.0255	3/11/2010@18:19:03			
WCN100311-03	1	S3	107	5.52	3/11/2010@18:19:56			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.35	0.0655	3/11/2010@18:21:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.35 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.35 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248719001	1	90	-1.29	0.0683	3/11/2010@18:23:35			
248719002	1	91	-1.02	0.0818	3/11/2010@18:24:30			
248736002	1	92	414	21.0	3/11/2010@18:25:24			
248778001	1	93	0.0656	0.137	3/11/2010@18:26:18			
248786001	1	94	1.35	0.201	3/11/2010@18:27:13			
1202064163||DUP	1	95	11.2	0.700	3/11/2010@18:28:07			
1202064166||MS	1	96	2.13	0.241	3/11/2010@18:29:01			
1202064169||MSD	1	97	1.76	0.222	3/11/2010@18:29:55			
248799001	1	98	-1.85	0.0403	3/11/2010@18:30:48			
248805001	1	99	-2.65	-1.59e-4	3/11/2010@18:31:42			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:32:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.21	0.0725	3/11/2010@18:34:25			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064162||DUP	1	100	-2.10	0.0276	3/11/2010@18:36:14			
1202064165||MS	1	101	107	5.51	3/11/2010@18:37:07			
1202064168||MSD	1	102	106	5.49	3/11/2010@18:38:00			
248805003	1	103	-1.44	0.0608	3/11/2010@18:38:53			
248839001	1	104	-2.65	-1.99e-4	3/11/2010@18:39:46			
248839002	1	105	-1.74	0.0457	3/11/2010@18:40:39			
248861001	1	106	-2.18	0.0232	3/11/2010@18:41:34			
248861002	1	107	-2.91	-0.0132	3/11/2010@18:42:29			
248736002	1	92	75.6	3.94	3/11/2010@18:43:23		10.00	
248786001	1	94	-1.60	0.0526	3/11/2010@18:44:18			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:45:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-0.623	0.102	3/11/2010@18:47:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.623 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.623 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064163||DUP	1	95	-1.89	0.0383	3/11/2010@18:48:51			
1202064166||MS	1	96	93.1	4.82	3/11/2010@18:49:45			
1202064169||MSD	1	97	96.0	4.97	3/11/2010@18:50:39			
1202061956|961286|LCS	1	27	26.3	1.46	3/11/2010@18:51:31		25.00	
WCN100311-03	1	S3	108	5.58	3/11/2010@18:52:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.15	0.0752	3/11/2010@18:54:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-11-2010_16-17-08.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

Channel 1: Current View

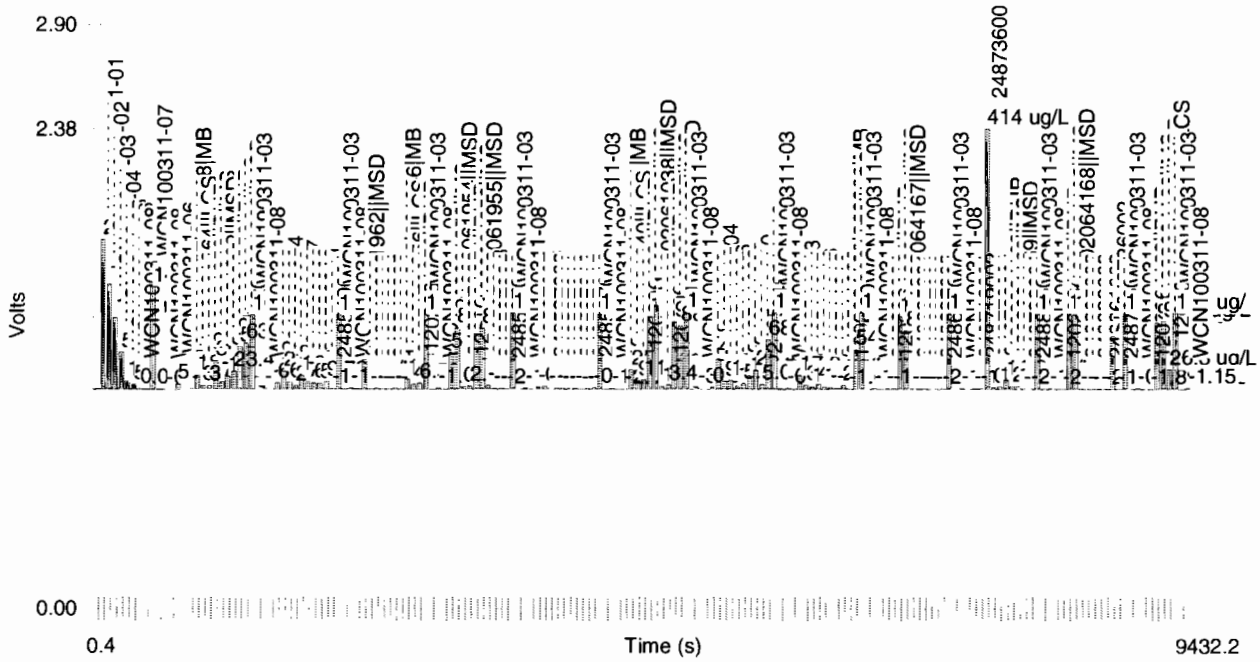


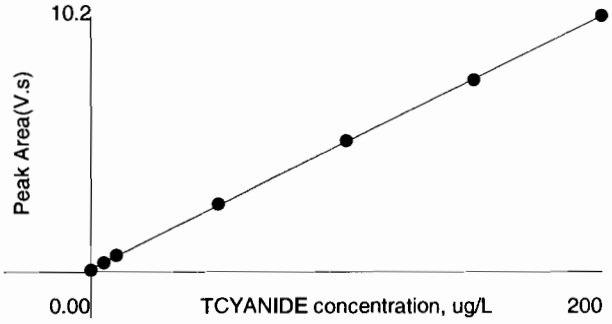
Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.739	-0.0	3/11/2010	16:19:41
2	150	1	7.64	0.520	0.7	3/11/2010	16:20:33
3	100	1	5.21	0.356	-0.7	3/11/2010	16:21:26
4	50.0	1	2.71	0.184	-2.1	3/11/2010	16:22:19
5	10.0	1	0.668	0.0430	-4.8	3/11/2010	16:23:12
6	5.00	1	0.372	0.0248	3.4	3/11/2010	16:24:06
7	0.00	1	0.0704	0.00376		3/11/2010	16:25:00

Author: axc2

Date : 3/11/2010

Figure 1: TCYANIDE



Area = 0.0503 * Conc + 0.134
Conc = 19.9 * Area - 2.65
Correlation Coefficient (r) = 0.99994

No Weighting

Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: **968239.0** Verified by: _____

Analyst: Greg Milton

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078573	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202078569	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202078570	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202078571	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202078572	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202078566 MB	24-MAR-2010 14:11:00	Soil	4	40	10	
1202078573 LCS	24-MAR-2010 14:11:00	Soil	4	40	10	
248515001	24-MAR-2010 14:11:00	Soil	4	40	10	
1202078567 DUP (248515001)	24-MAR-2010 14:11:00	Soil	4	40	10	
1202078569 MS (248515001)	24-MAR-2010 14:11:00	Soil	4	40	10	
1202078571 MSD (248515001)	24-MAR-2010 14:11:00	Soil	4	40	10	
248515002	24-MAR-2010 14:11:00	Soil	4	40	10	
248515003	24-MAR-2010 14:11:00	Soil	4	40	10	
248517001	24-MAR-2010 14:11:00	Soil	4	40	10	
248520001	24-MAR-2010 14:11:00	Soil	4	40	10	
248520002	24-MAR-2010 14:11:00	Soil	4	40	10	
248520003	24-MAR-2010 14:11:00	Soil	4	40	10	
248520004	24-MAR-2010 14:11:00	Soil	4	40	10	
248520005	24-MAR-2010 14:11:00	Soil	4	40	10	
248520006	24-MAR-2010 14:11:00	Soil	4	40	10	
248520007	24-MAR-2010 14:11:00	Soil	4	40	10	
248520008	24-MAR-2010 14:11:00	Soil	4	40	10	
248520009	24-MAR-2010 14:11:00	Soil	4	40	10	
248520010	24-MAR-2010 14:11:00	Soil	4	40	10	
248520011	24-MAR-2010 14:11:00	Soil	4	40	10	
1202078568 DUP (248520011)	24-MAR-2010 14:11:00	Soil	4	40	10	
1202078570 MS (248520011)	24-MAR-2010 14:11:00	Soil	4	40	10	
1202078572 MSD (248520011)	24-MAR-2010 14:11:00	Soil	4	40	10	

Prep Logbook

Batch ID: **968239.0** Verified by: _____

Analyst: Greg Milton

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078573	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202078569	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202078570	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202078571	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202078572	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248526001	24-MAR-2010 14:11:00	Soil	4	40	10	

Reagent/Solvent Lot ID	Description	Amount

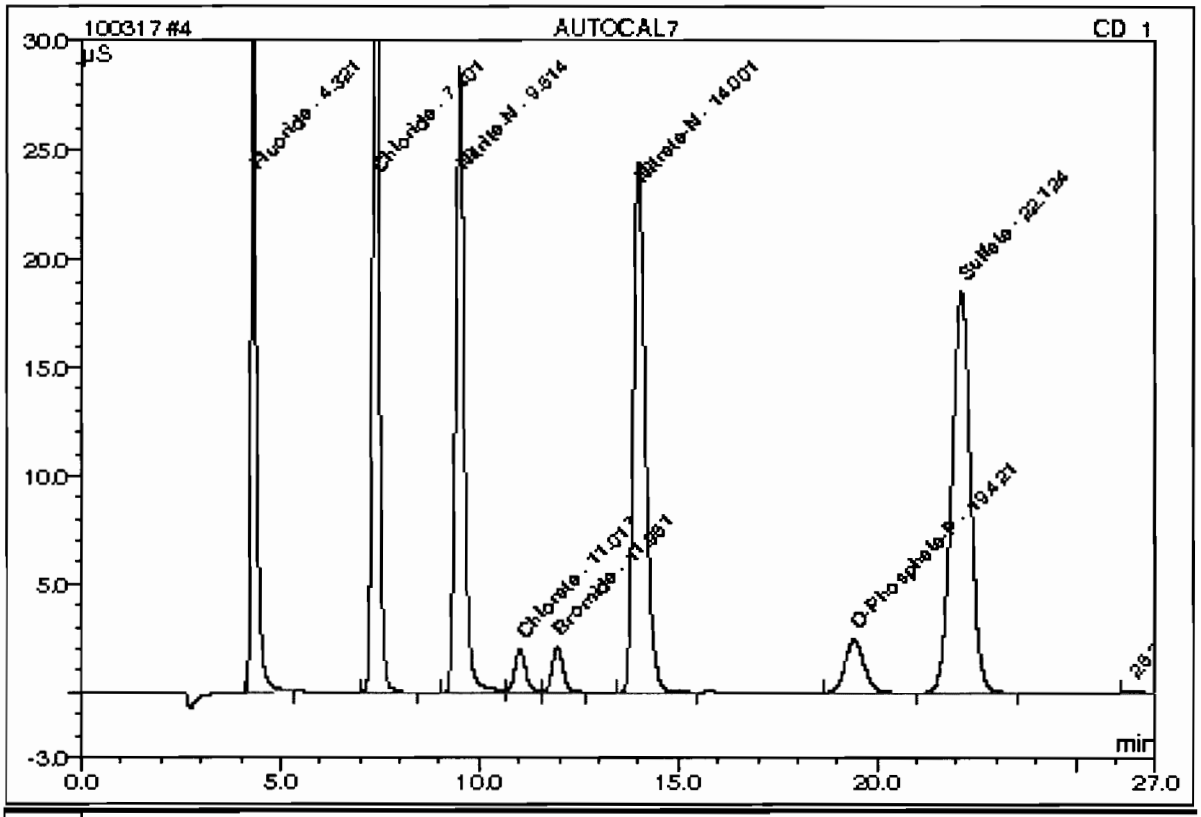
Comments:

This is runlog for Sequence 100325.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/17/10 09:15		1	100325	GXM3
ICAL-06	03/17/10 09:45		1	100325	GXM3
ICAL-05	03/17/10 10:15		1	100325	GXM3
ICAL-04	03/17/10 10:45		1	100325	GXM3
ICAL-03	03/17/10 11:15		1	100325	GXM3
ICAL-02	03/17/10 11:45		1	100325	GXM3
ICAL-01	03/17/10 13:14		1	100325	GXM3

4 AUTOCAL7

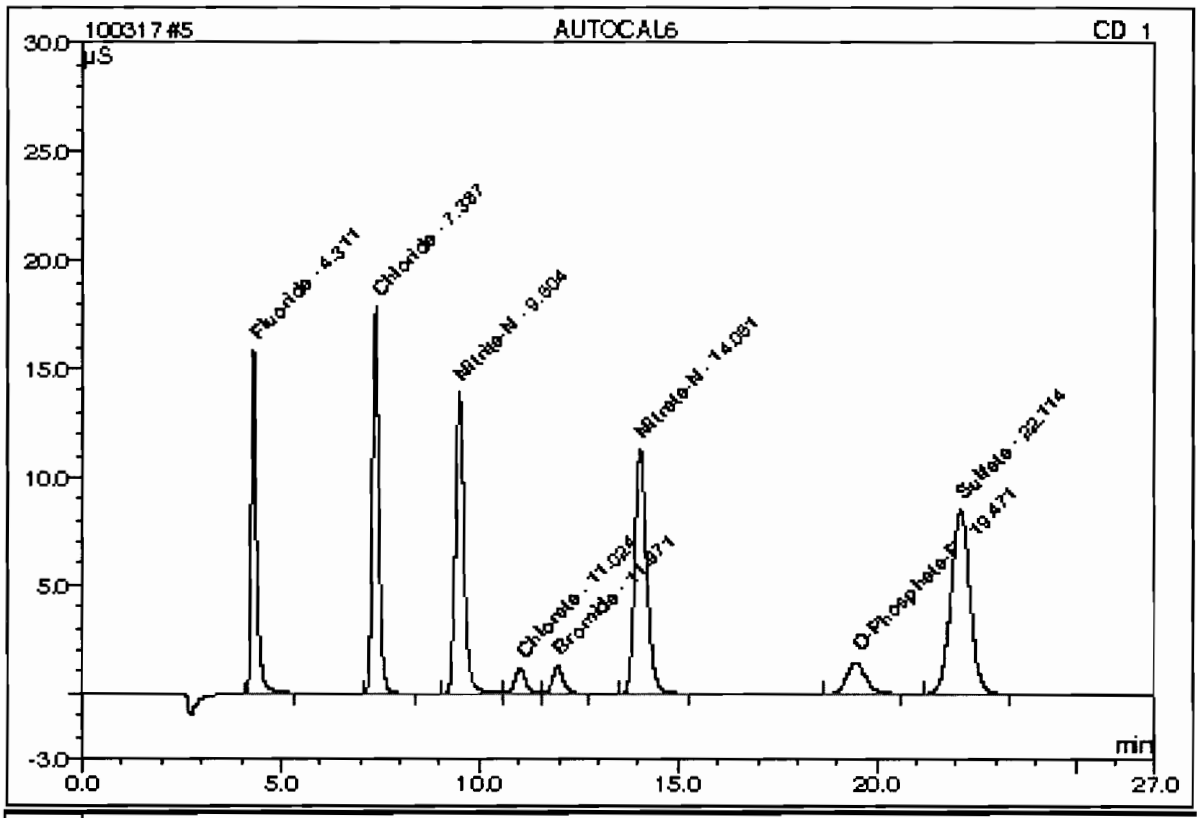
Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	10.0000	10.0024		5.01638	12.24
2	7.40	Chloride	20.0000	20.0097		7.37427	18.00
3	9.51	Nitrite-N	10.0000	10.0083		7.36725	17.98
4	11.02	Chlorate	5.0000	5.0490		0.60961	1.49
5	11.96	Bromide	5.0000	5.0206		0.64557	1.58
6	14.00	Nitrate-N	10.0000	10.0123		8.56118	20.89
7	19.42	O-Phosphate-P	5.0000	5.0000		1.32928	3.24
8	22.12	Sulfate	40.0000	40.0384		10.04798	24.52
Total:				105.1408	0.000	40.952	99.94

5 AUTOCAL6

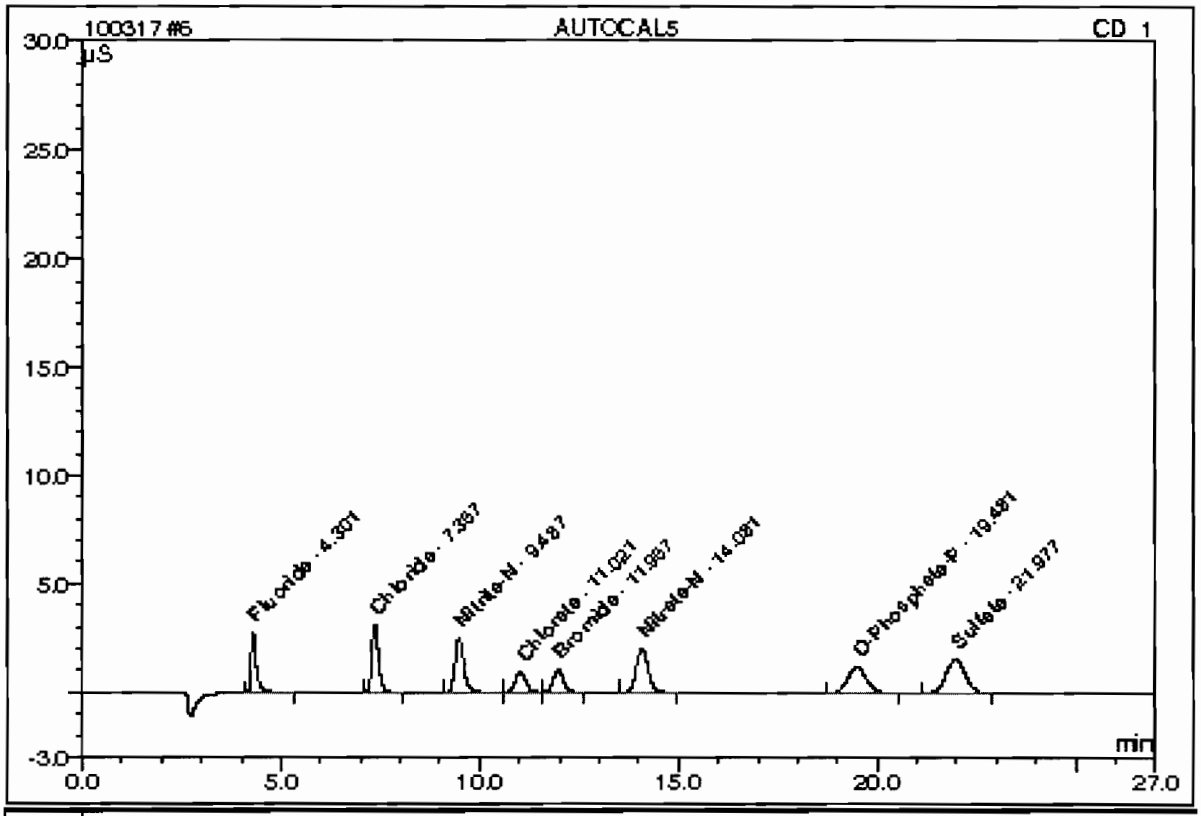
Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	5.0000	4.8820		2.42594	12.44
2	7.39	Chloride	10.0000	9.3500		3.36519	17.26
3	9.50	Nitrite-N	5.0000	4.8693		3.54551	18.19
4	11.02	Chlorate	3.0000	2.9878		0.36137	1.85
5	11.97	Bromide	3.0000	2.9986		0.38556	1.98
6	14.05	Nitrate-N	5.0000	4.7145		3.94401	20.23
7	19.47	O-Phosphate-P	3.0000	2.9536		0.77886	4.00
8	22.11	Sulfate	20.0000	19.0326		4.68879	24.05
Total:				51.7885	0.000	19.495	100.00

6 AUTOCAL5

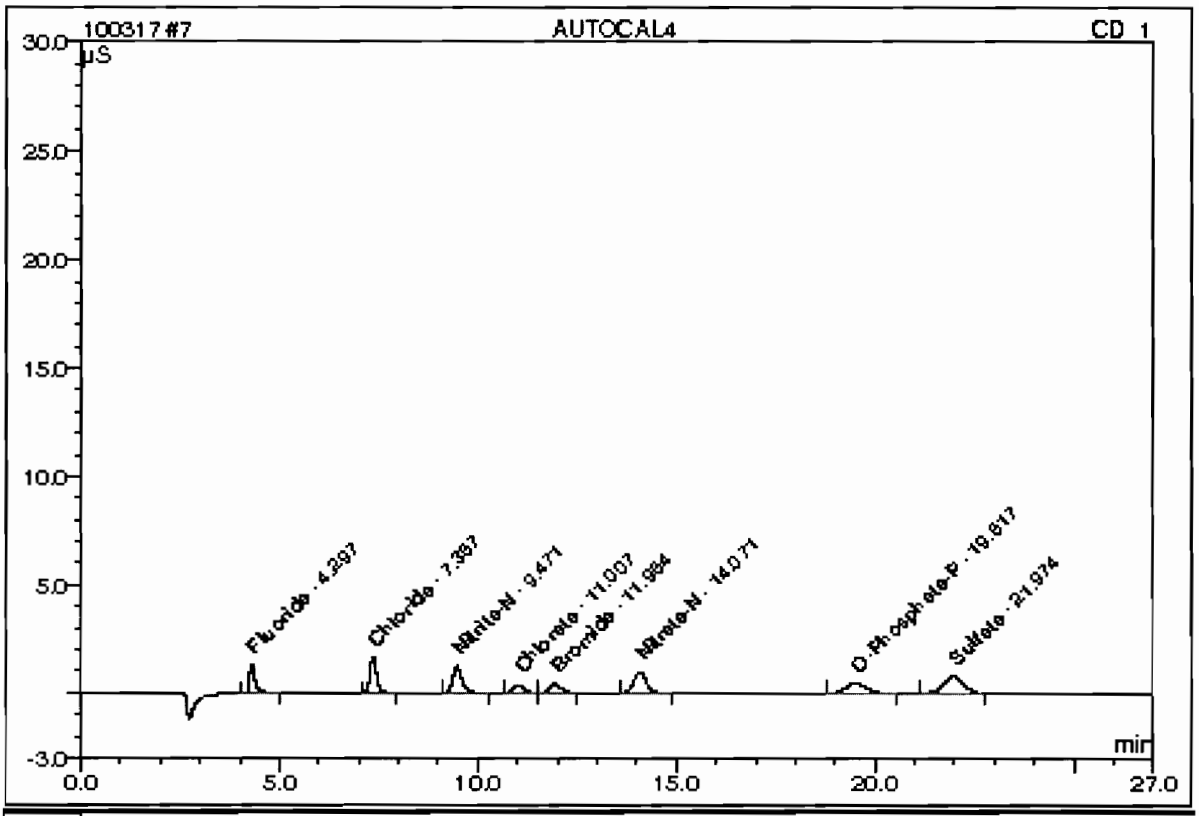
Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	1.0000	0.9378		0.44618	9.89
2	7.37	Chloride	2.0000	1.8432		0.61004	13.52
3	9.49	Nitrite-N	1.0000	0.9327		0.64234	14.24
4	11.02	Chlorate	2.5000	2.3781		0.28403	6.30
5	11.97	Bromide	2.5000	2.4513		0.31361	6.95
6	14.08	Nitrate-N	1.0000	0.9208		0.70455	15.62
7	19.48	O-Phosphate-P	2.5000	2.4823		0.65221	14.46
8	21.98	Sulfate	4.0000	3.7504		0.85753	19.01
Total:				15.6967	0.000	4.511	100.00

7 AUTOCAL4

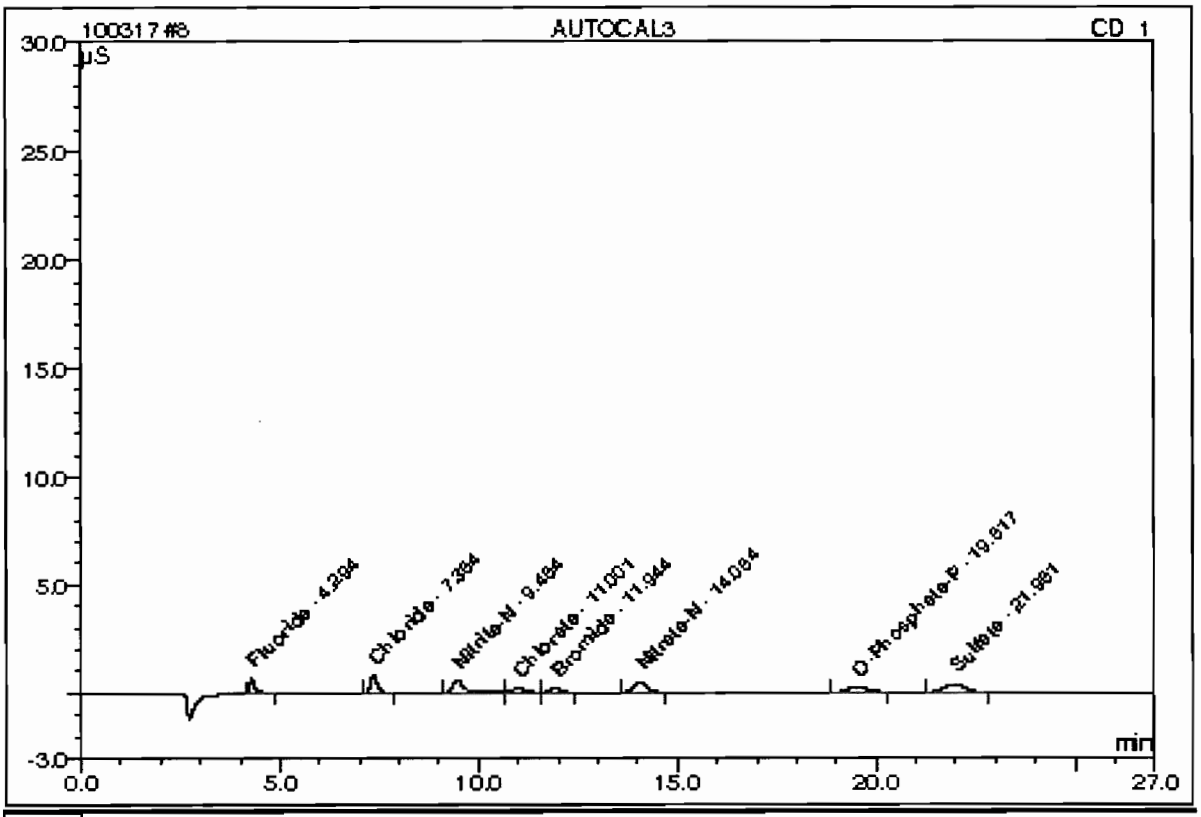
Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	0.5000	0.4925		0.21806	10.30
2	7.36	Chloride	1.0000	1.0806		0.32478	15.34
3	9.47	Nitrite-N	0.5000	0.4940		0.31326	14.80
4	11.01	Chlorate	1.0000	0.9498		0.10869	5.13
5	11.95	Bromide	1.0000	0.9722		0.12171	5.75
6	14.07	Nitrate-N	0.5000	0.5111		0.34644	16.36
7	19.52	O-Phosphate-P	1.0000	0.9993		0.25849	12.21
8	21.97	Sulfate	2.0000	2.0534		0.42575	20.11
Total:				7.5529	0.000	2.117	100.00

8 AUTOCAL3

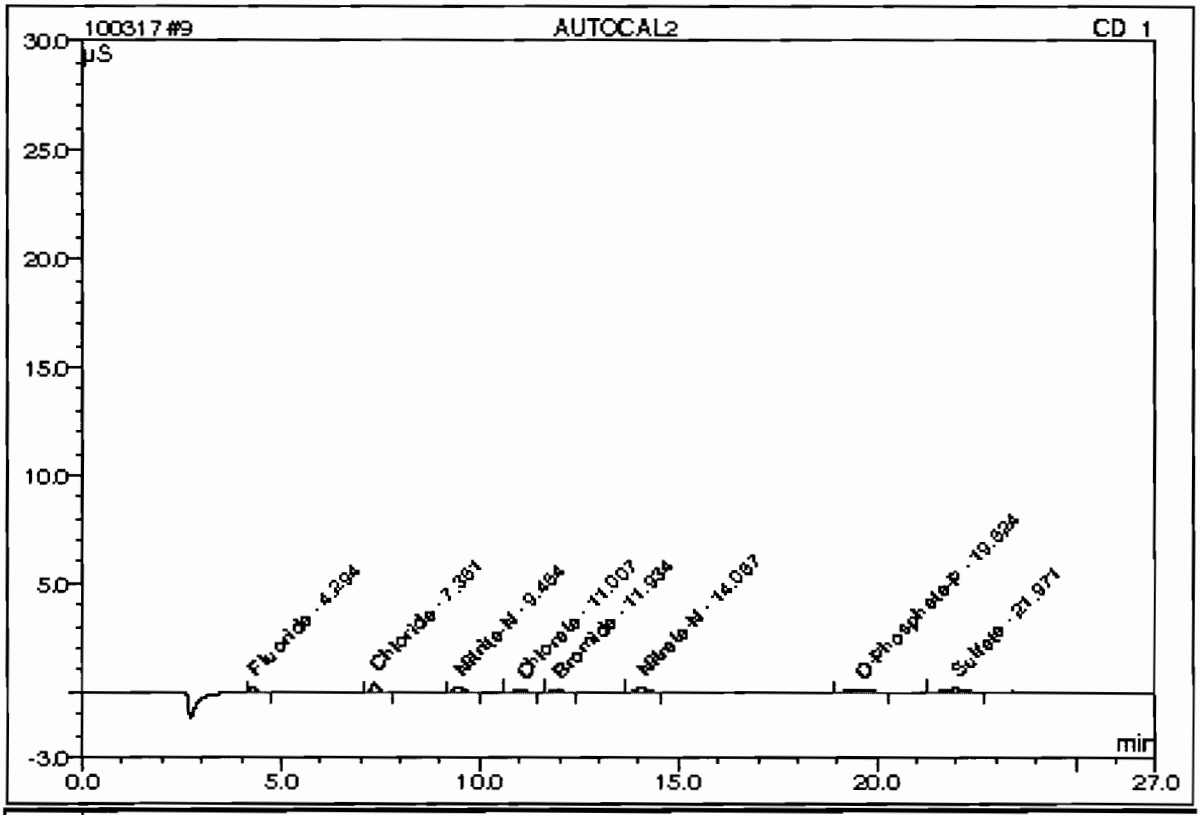
Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.2500	0.2772		0.10608	9.31
2	7.35	Chloride	0.5000	0.6486		0.16371	14.36
3	9.46	Nitrite-N	0.2500	0.3510		0.21960	19.26
4	11.00	Chlorate	0.5000	0.6270		0.07382	6.48
5	11.94	Bromide	0.5000	0.5232		0.06434	5.64
6	14.06	Nitrate-N	0.2500	0.3124		0.17066	14.97
7	19.52	O-Phosphate-P	0.5000	0.5128		0.13076	11.47
8	21.96	Sulfate	1.0000	1.2128		0.21096	18.51
Total:				4.4648	0.000	1.140	100.00

9 AUTOCAL2

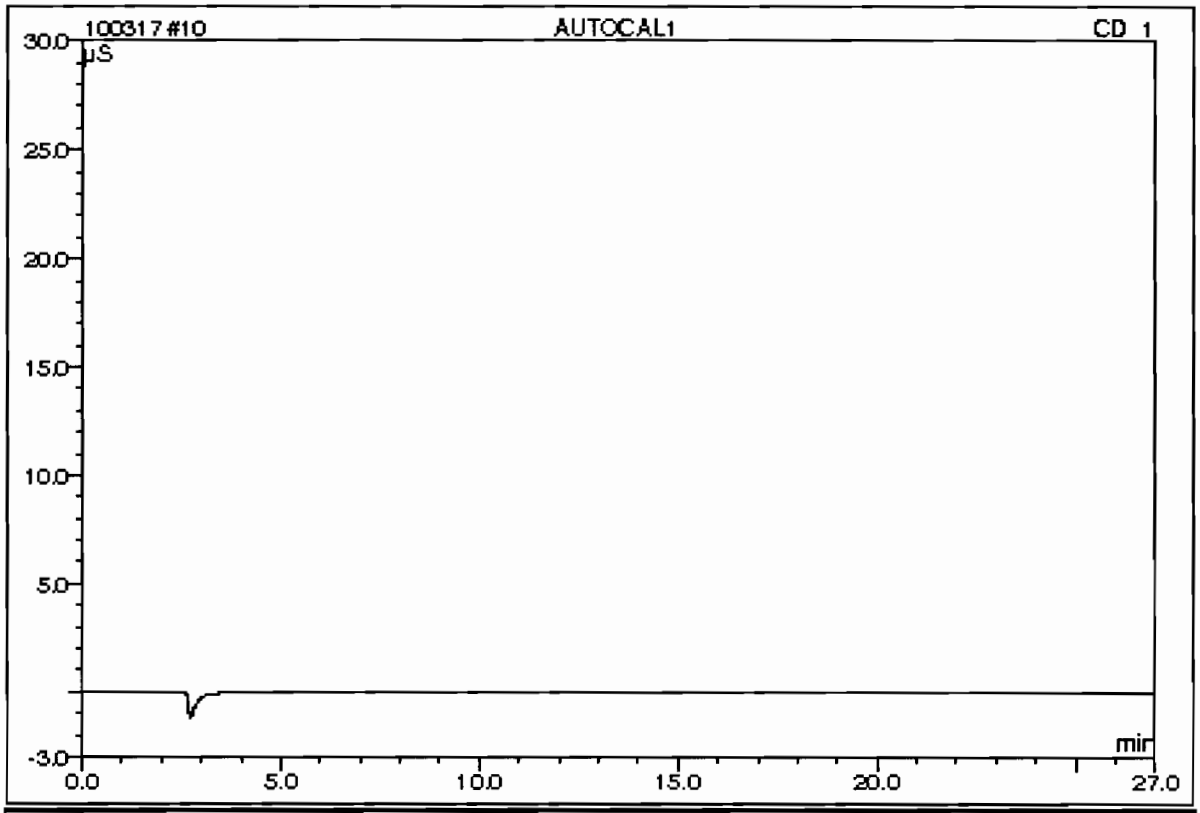
Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.1000	0.1392		0.04186	9.37
2	7.35	Chloride	0.2000	0.3749		0.07965	17.83
3	9.46	Nitrite-N	0.1000	0.1279		0.06080	13.61
4	11.01	Chlorate	0.2000	0.1981		0.02196	4.92
5	11.93	Bromide	0.2000	0.2157		0.02531	5.67
6	14.07	Nitrate-N	0.1000	0.1723		0.06679	14.95
7	19.52	O-Phosphate-P	0.2000	0.2351		0.06039	13.52
8	21.97	Sulfate	0.4000	0.6629		0.08998	20.14
Total:				2.1261	0.000	0.447	100.00

10 AUTOCAL1

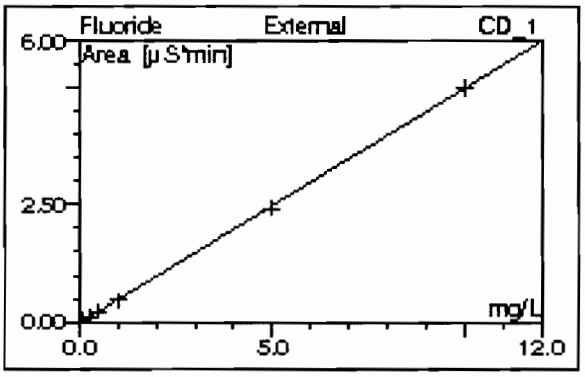
Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

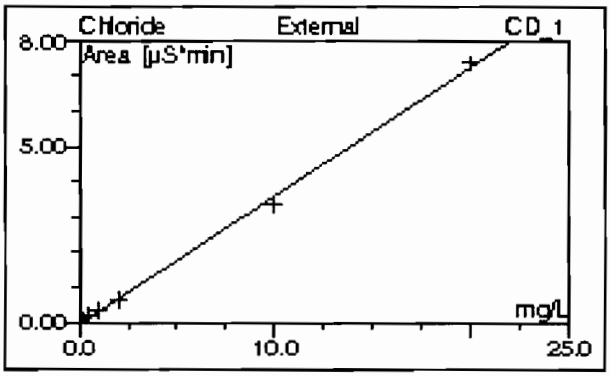


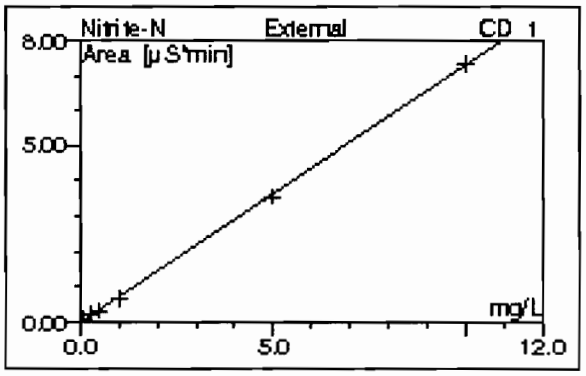
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

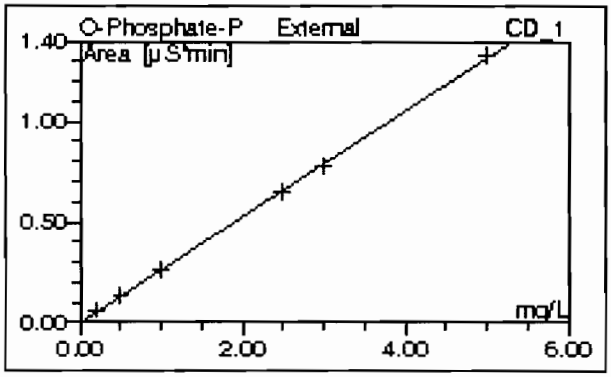
10 AUTOCAL1

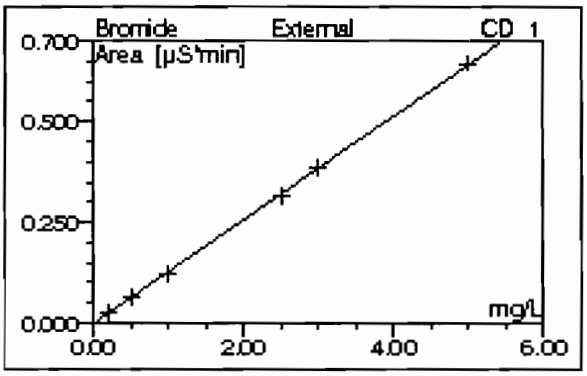
Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002714;GLGCE086;300;9056

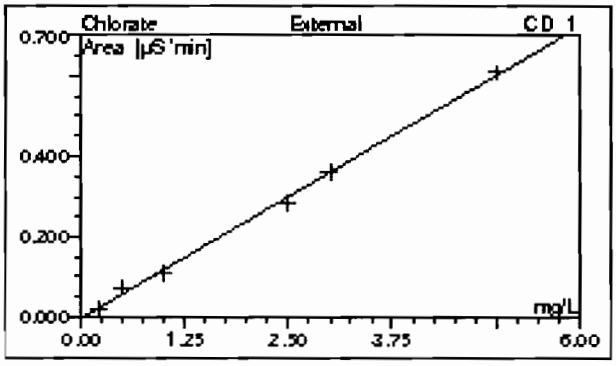


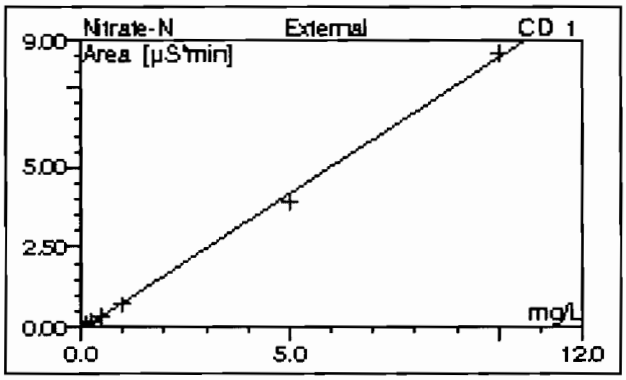


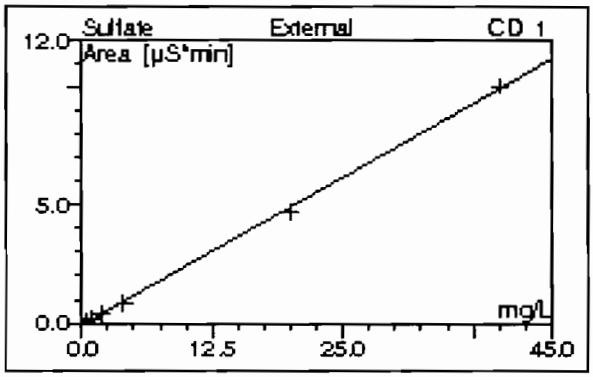












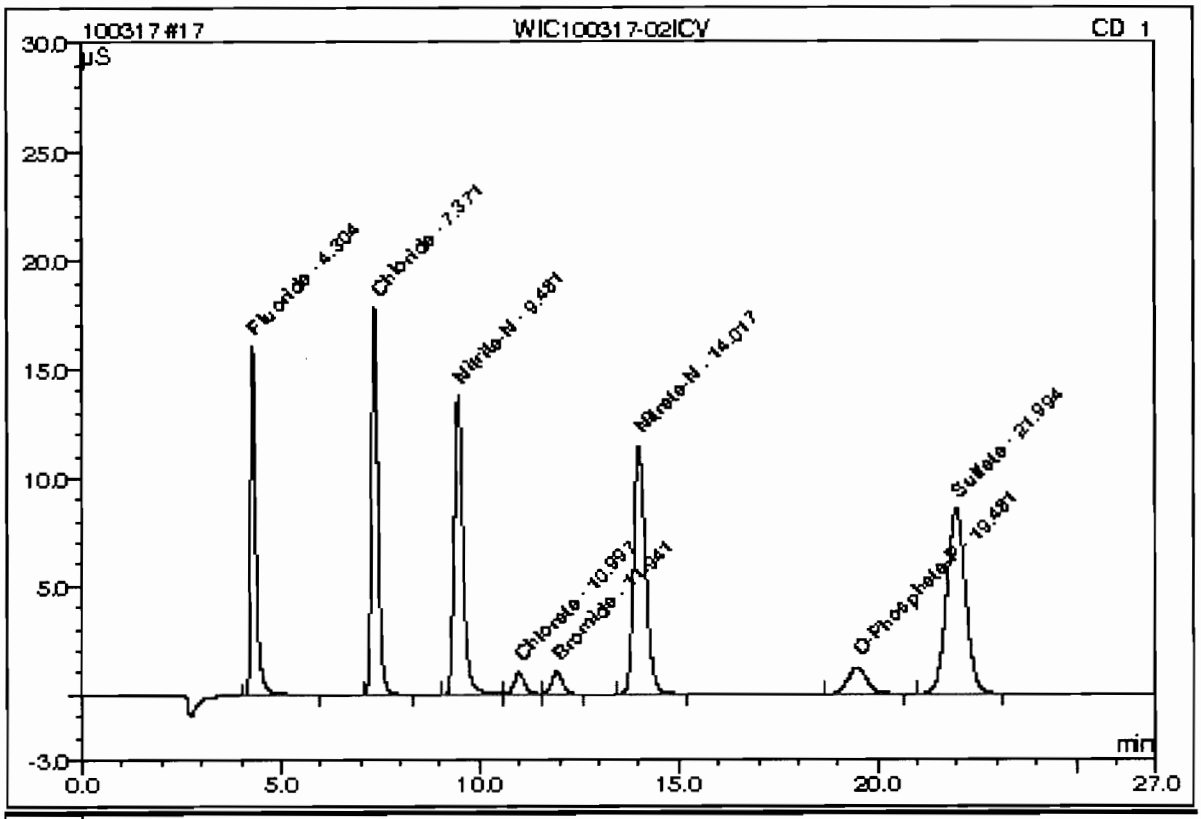
No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLO11	99.9751	-0.0280	0.5015	0.0000
n.a.	n.a.	Chloride	OLO11	99.8150	-0.0574	0.3656	0.0000
n.a.	n.a.	Nitrite-N	OLO11	99.9510	-0.0332	0.7348	0.0000
n.a.	n.a.	Chlorate	OLO11	99.7338	-0.0020	0.1208	0.0000
n.a.	n.a.	Bromide	OLO11	99.9700	-0.0025	0.1290	0.0000
n.a.	n.a.	Nitrate-N	OLO11	99.8613	-0.0800	0.8518	0.0000
n.a.	n.a.	O-Phosphate-P	OLO11	99.9667	-0.0017	0.2641	0.0000
n.a.	n.a.	Sulfate	OLO11	99.8983	-0.0758	0.2500	0.0000
Average:				99.8964	-0.0351	0.4022	0.0000

This is runlog for Sequence 100317.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/17/10 08:45		1	100317	GXM3
ICAL-07	03/17/10 09:15		1	100317	GXM3
ICAL-06	03/17/10 09:45		1	100317	GXM3
ICAL-05	03/17/10 10:15		1	100317	GXM3
ICAL-04	03/17/10 10:45		1	100317	GXM3
ICAL-03	03/17/10 11:15		1	100317	GXM3
ICAL-02	03/17/10 11:45		1	100317	GXM3
ICAL-01	03/17/10 13:14		1	100317	GXM3
ICV	03/17/10 13:43		1	100317	GXM3
ICB	03/17/10 14:12		1	100317	GXM3
1202066399	03/17/10 14:42	963224	1	100317	GXM3
1202066402	03/17/10 15:11	963224	1	100317	GXM3
247261004	03/17/10 15:41	963224	1	100317	GXM3
1202066400	03/17/10 16:11	963224	1	100317	GXM3
1202066401	03/17/10 16:41	963224	1	100317	GXM3
247431002	03/17/10 17:10	963224	1	100317	GXM3
247817001	03/17/10 17:40	963224	1	100317	GXM3
247829001	03/17/10 18:10	963224	1	100317	GXM3
248024002	03/17/10 18:40	963224	1	100317	GXM3
248024004	03/17/10 19:10	963224	1	100317	GXM3
CVH	03/17/10 19:40		1	100317	GXM3
CCB	03/17/10 20:10		1	100317	GXM3
1202063619	03/17/10 20:39	962082	1	100317	GXM3
1202063626	03/17/10 21:09	962082	1	100317	GXM3
248666001	03/17/10 21:39	962082	1	100317	GXM3
1202063620	03/17/10 22:09	962082	1	100317	GXM3
1202063622	03/17/10 22:39	962082	1	100317	GXM3
1202063624	03/17/10 23:09	962082	1	100317	GXM3

17 WIC100317-02ICV

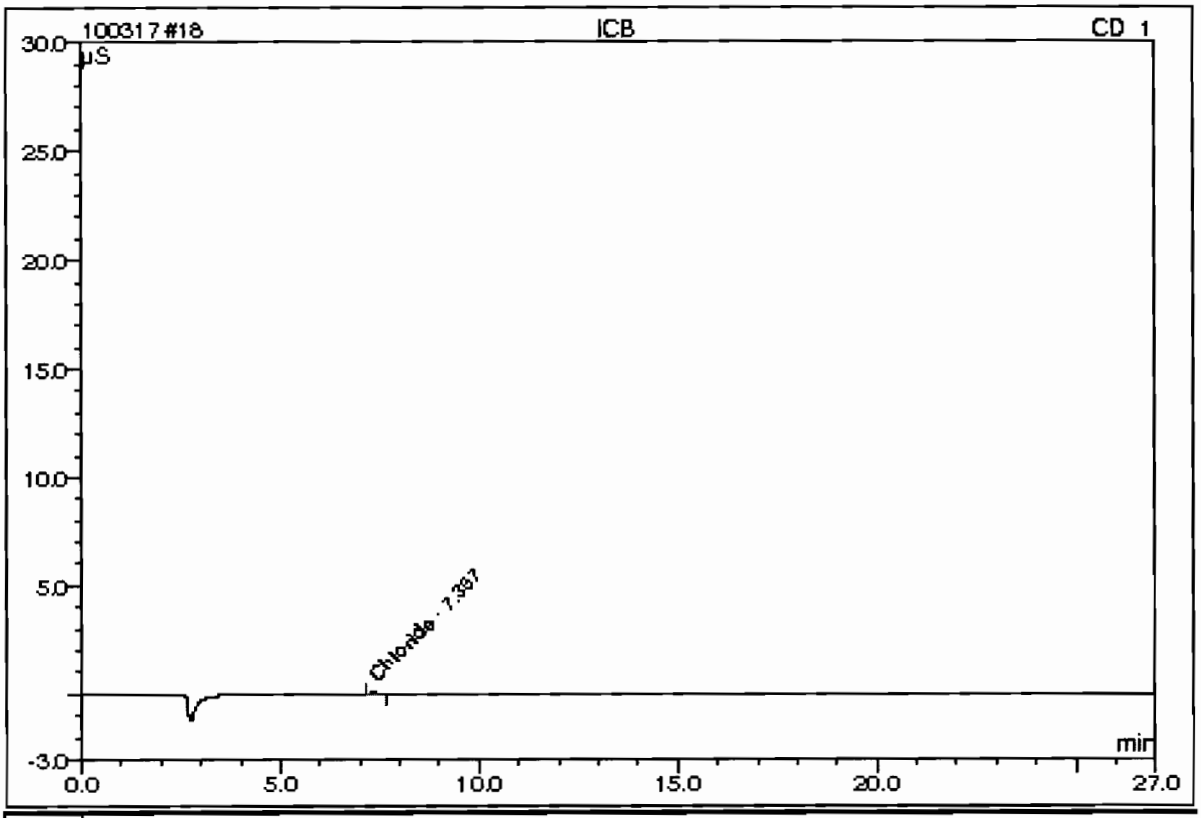
Sample Name:	WIC100317-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:43	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9617		2.46032	12.79
2	7.37	Chloride	n.a.	9.3464		3.35930	17.46
3	9.48	Nitrite-N	n.a.	4.8136		3.50372	18.21
4	11.00	Chlorate	n.a.	2.4909		0.29883	1.55
5	11.94	Bromide	n.a.	2.4926		0.31900	1.66
6	14.02	Nitrate-N	n.a.	4.7581		3.97314	20.65
7	19.48	O-Phosphate-P	n.a.	2.5072		0.66041	3.43
8	21.99	Sulfate	n.a.	18.9605		4.66474	24.25
Total:				50.3309	0.000	19.239	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 14:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.36	Chloride	n.a.	0.1862		0.01068	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1862	0.000	0.011	100.00

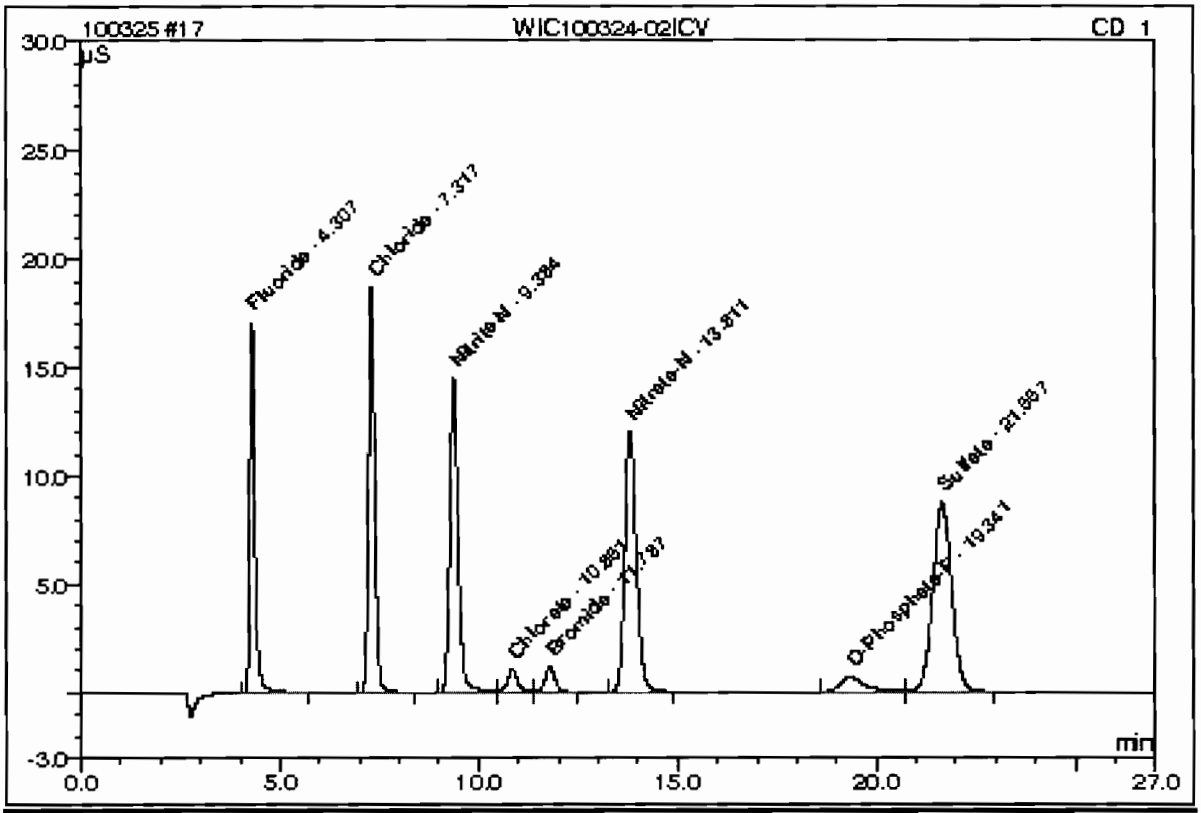
This is runlog for Sequence 100325.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/25/10 02:56		1	100325	GXM3
BLK	03/25/10 03:26		1	100325	GXM3
BLK	03/25/10 03:56		1	100325	GXM3
ICV	03/25/10 04:26		1	100325	GXM3
ICB	03/25/10 04:55		1	100325	GXM3
1202078566	03/25/10 05:25	968241	1	100325	GXM3
1202078573	03/25/10 05:55	968241	1	100325	GXM3
248515001	03/25/10 06:25	968241	1	100325	GXM3
1202078567	03/25/10 06:55	968241	1	100325	GXM3
1202078569	03/25/10 07:25	968241	1	100325	GXM3
1202078571	03/25/10 07:55	968241	1	100325	GXM3
248515002	03/25/10 08:25	968241	1	100325	GXM3
248515003	03/25/10 08:55	968241	1	100325	GXM3
248517001	03/25/10 09:25	968241	1	100325	GXM3
248520001	03/25/10 09:55	968241	1	100325	GXM3
CVH	03/25/10 10:24		1	100325	GXM3
CCB	03/25/10 10:54		1	100325	GXM3
248520002	03/25/10 11:24	968241	1	100325	GXM3
248520003	03/25/10 11:54	968241	1	100325	GXM3
248520004	03/25/10 12:24	968241	1	100325	GXM3
248520005	03/25/10 12:54	968241	1	100325	GXM3
248520006	03/25/10 13:24	968241	1	100325	GXM3
248520007	03/25/10 13:54	968241	1	100325	GXM3
248520008	03/25/10 14:24	968241	1	100325	GXM3
248520009	03/25/10 14:54	968241	1	100325	GXM3
248520010	03/25/10 15:23	968241	1	100325	GXM3
CCV	03/25/10 15:53		1	100325	GXM3
CCB	03/25/10 16:23		1	100325	GXM3

248520011	03/25/10	16:52	968241	1	100325	GXM3
1202078568	03/25/10	17:22	968241	1	100325	GXM3
1202078570	03/25/10	17:51	968241	1	100325	GXM3
1202078572	03/25/10	18:21	968241	1	100325	GXM3
248526001	03/25/10	18:51	968241	1	100325	GXM3
CVH	03/25/10	19:21		1	100325	GXM3
CCB	03/25/10	19:51		1	100325	GXM3
1202074951	03/25/10	20:21	966831	1000	100325	GXM3
248103002	03/25/10	20:51	967295	100	100325	GXM3
248103002	03/25/10	21:21	967295	10	100325	GXM3
248686003	03/25/10	21:51	967295	10	100325	GXM3
1202076093	03/25/10	22:21	967295	10	100325	GXM3
1202076094	03/25/10	22:50	967295	10	100325	GXM3
CVH	03/25/10	23:20		1	100325	GXM3
CCB	03/25/10	23:50		1	100325	GXM3

17 WIC100324-02ICV

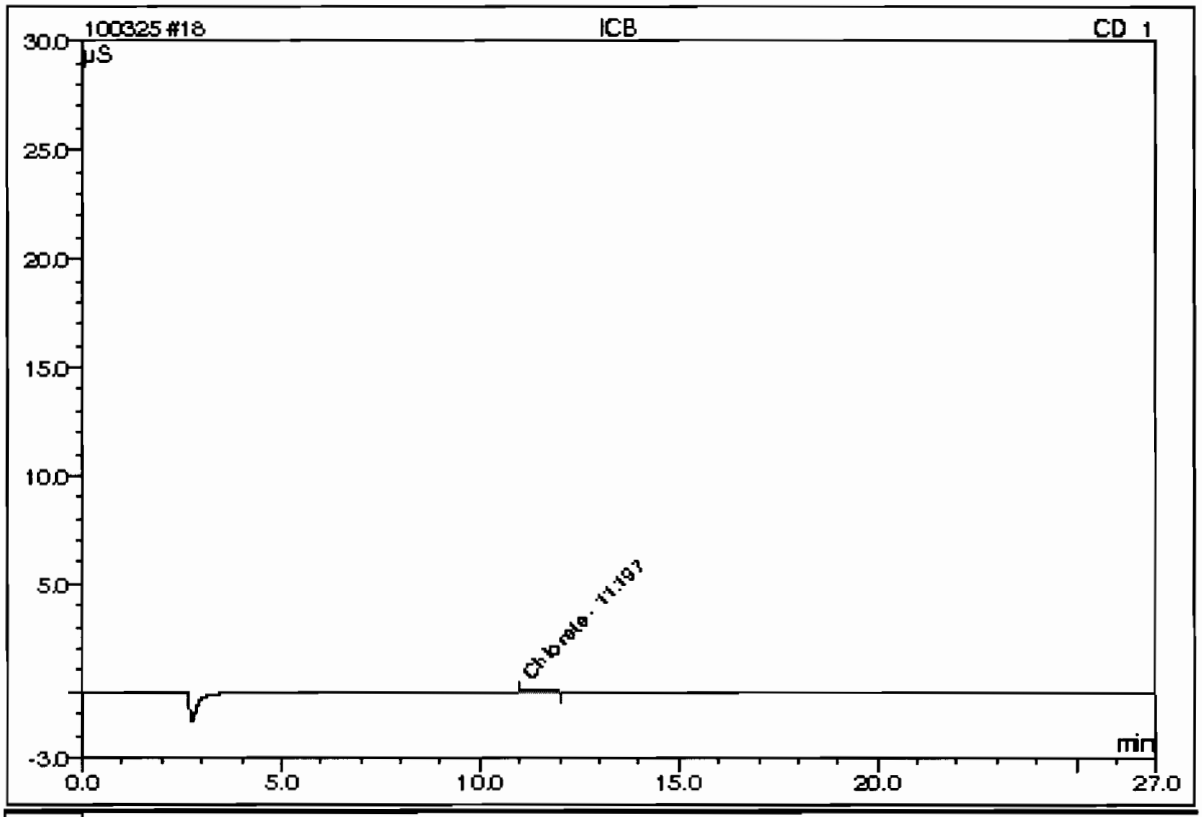
Sample Name:	WIC100324-02ICV	*Injection Volume:*	50.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 4:26	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.0123		2.48570	12.87
2	7.32	Chloride	n.a.	9.4472		3.39615	17.58
3	9.38	Nitrite-N	n.a.	4.8776		3.55080	18.38
4	10.85	Chlorate	n.a.	2.5334		0.30397	1.57
5	11.79	Bromide	n.a.	2.5244		0.32311	1.67
6	13.81	Nitrate-N	n.a.	4.8179		4.02413	20.83
7	19.34	O-Phosphate-P	n.a.	1.8189		0.47866	2.48
8	21.67	Sulfate	n.a.	19.3292		4.75692	24.62
Total:				50.3611	0.000	19.319	100.00

18 ICB

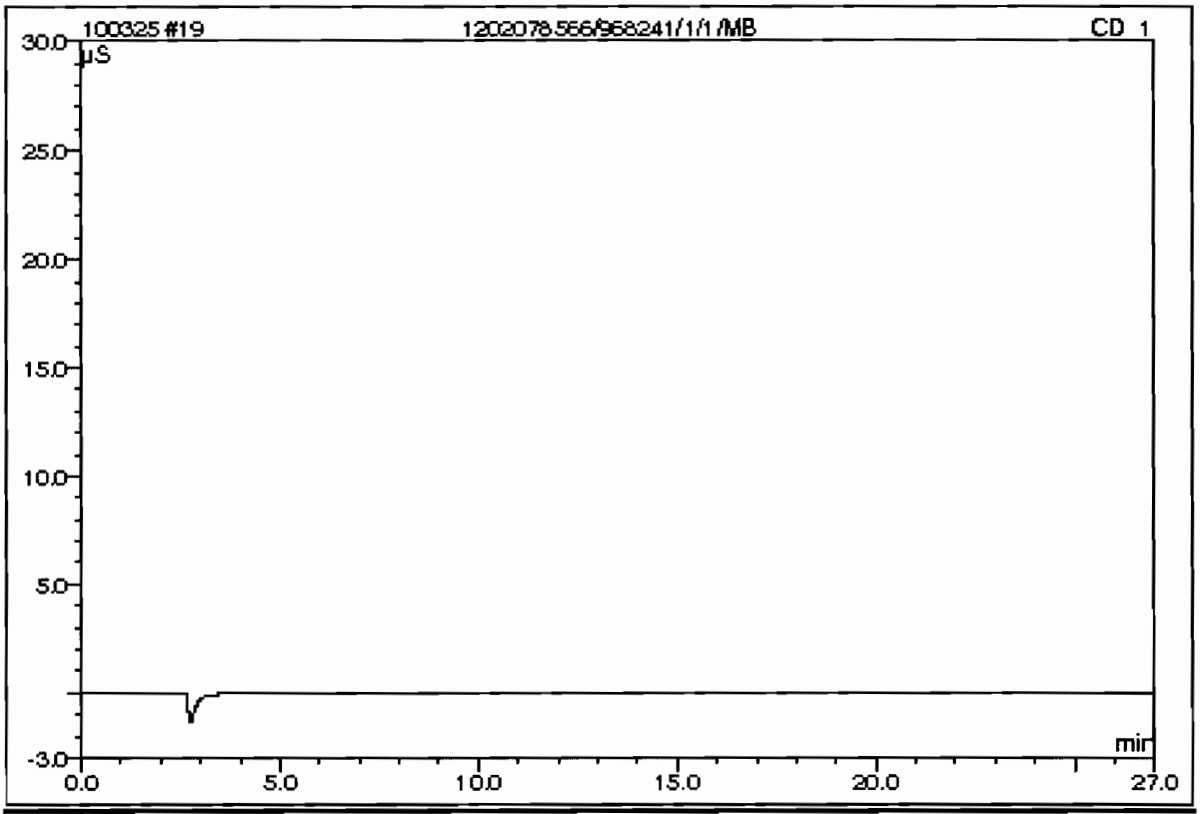
Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	30	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 4:55	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
1	11.20	Chlorate	n.a.	0.3469		0.03993	100.00
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.3469	0.000	0.040	100.00

19 1202078566/968241/1/1/MB

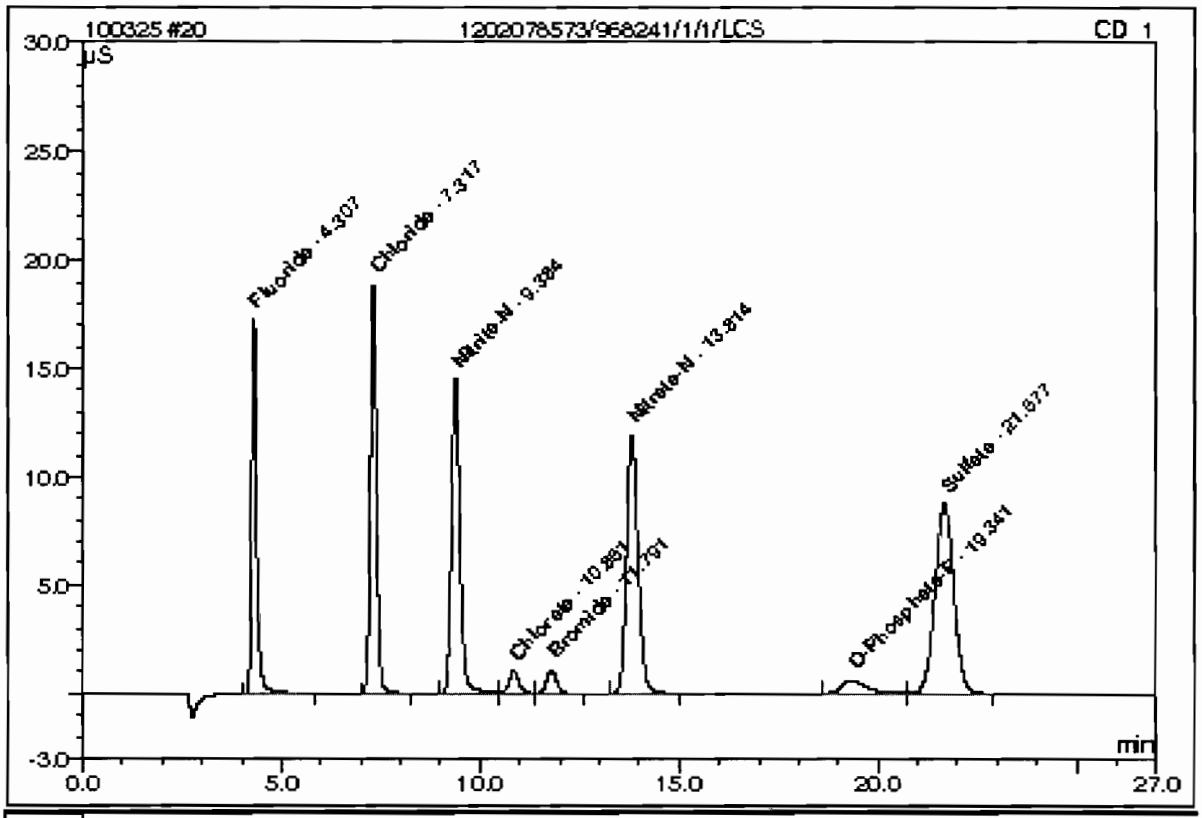
Sample Name:	1202078566/968241/1/1/MB	*Injection Volume:*	50.0
Vial Number:	31	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 5:25	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

20 1202078573/968241/1/1/LCS

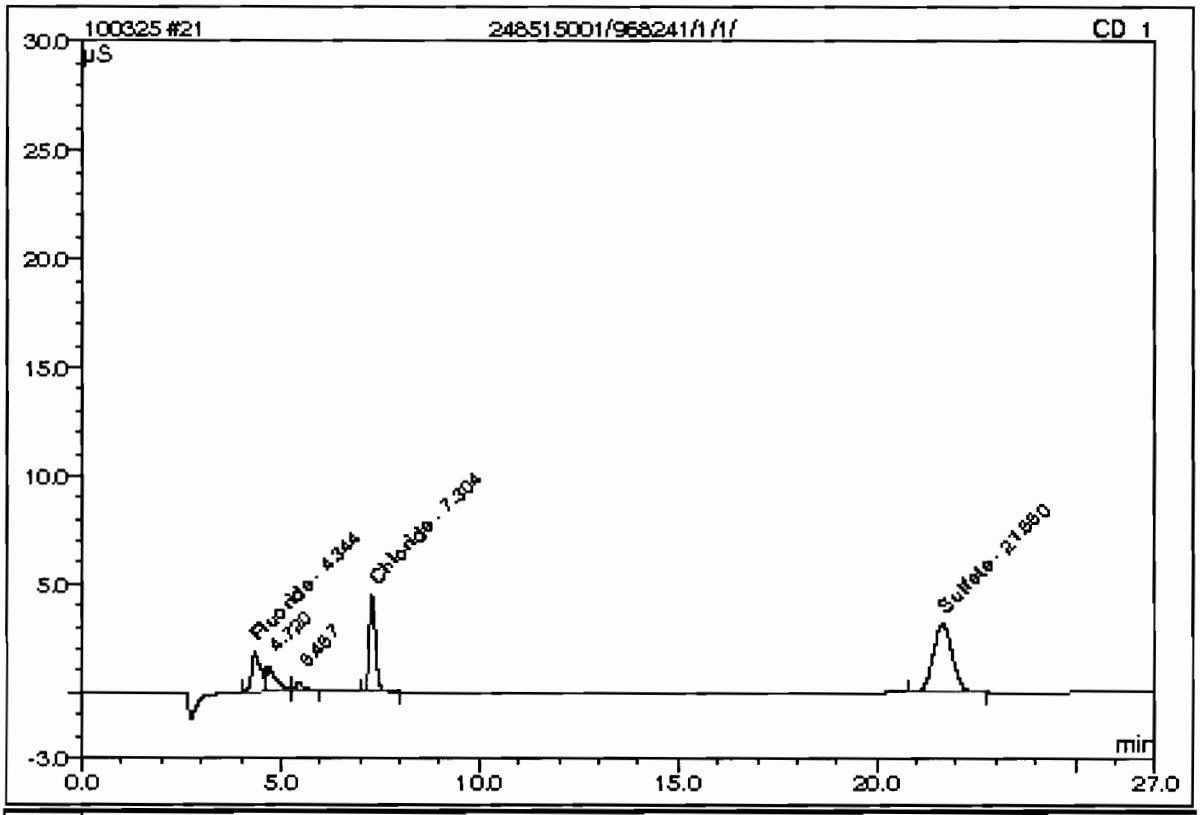
Sample Name:	1202078573/968241/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	32	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 5:55	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.0670		2.51315	12.98
2	7.32	Chloride	n.a.	9.5311		3.42679	17.70
3	9.38	Nitrite-N	n.a.	4.8857		3.55670	18.37
4	10.85	Chlorate	n.a.	2.5581		0.30694	1.59
5	11.79	Bromide	n.a.	2.5283		0.32361	1.67
6	13.81	Nitrate-N	n.a.	4.8112		4.01840	20.75
7	19.34	O-Phosphate-P	n.a.	1.6945		0.44580	2.30
8	21.68	Sulfate	n.a.	19.3822		4.77017	24.64
Total:				50.4580	0.000	19.362	100.00

21 248515001/968241/1/1/

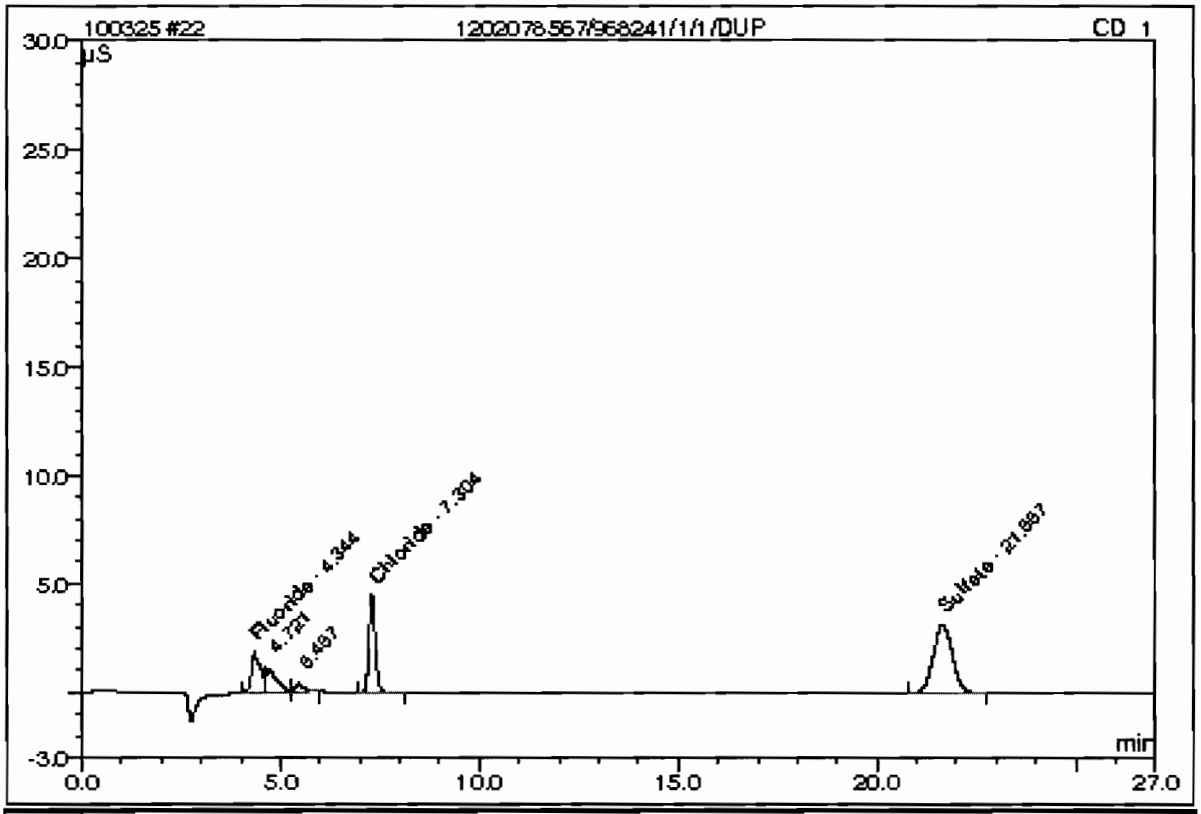
Sample Name:	248515001/968241/1/1/	*Injection Volume:*	50.0
Vial Number:	33	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 6:25	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.9918		0.46940	13.43
4	7.30	Chloride	n.a.	2.4542		0.83977	24.03
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.66	Sulfate	n.a.	7.3089		1.75161	50.13
Total:				10.7549	0.000	3.061	87.60

22 1202078567/968241/1/1/DUP

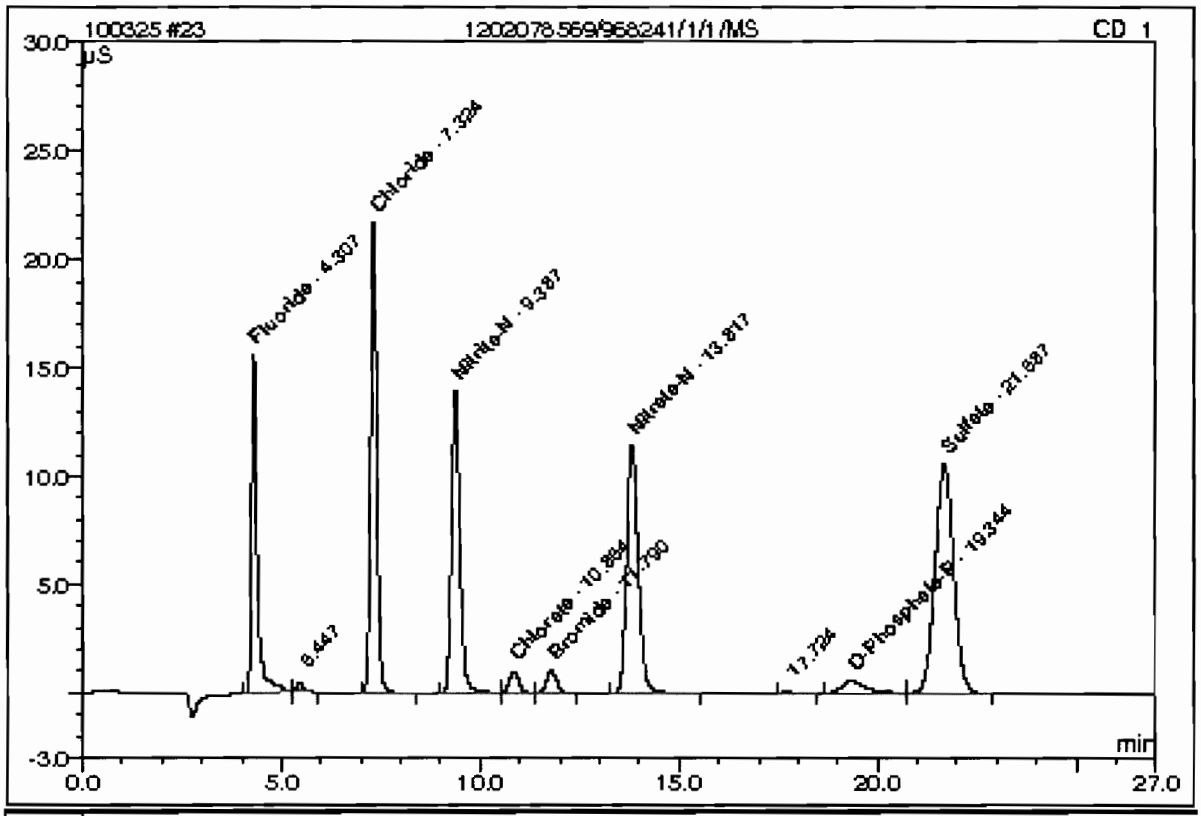
Sample Name:	1202078567/968241/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	34	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 6:55	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.9879		0.46744	13.40
4	7.30	Chloride	n.a.	2.4512		0.83866	24.05
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.66	Sulfate	n.a.	7.3022		1.74992	50.18
Total:				10.7412	0.000	3.056	87.63

23 1202078569/968241/1/1/MS

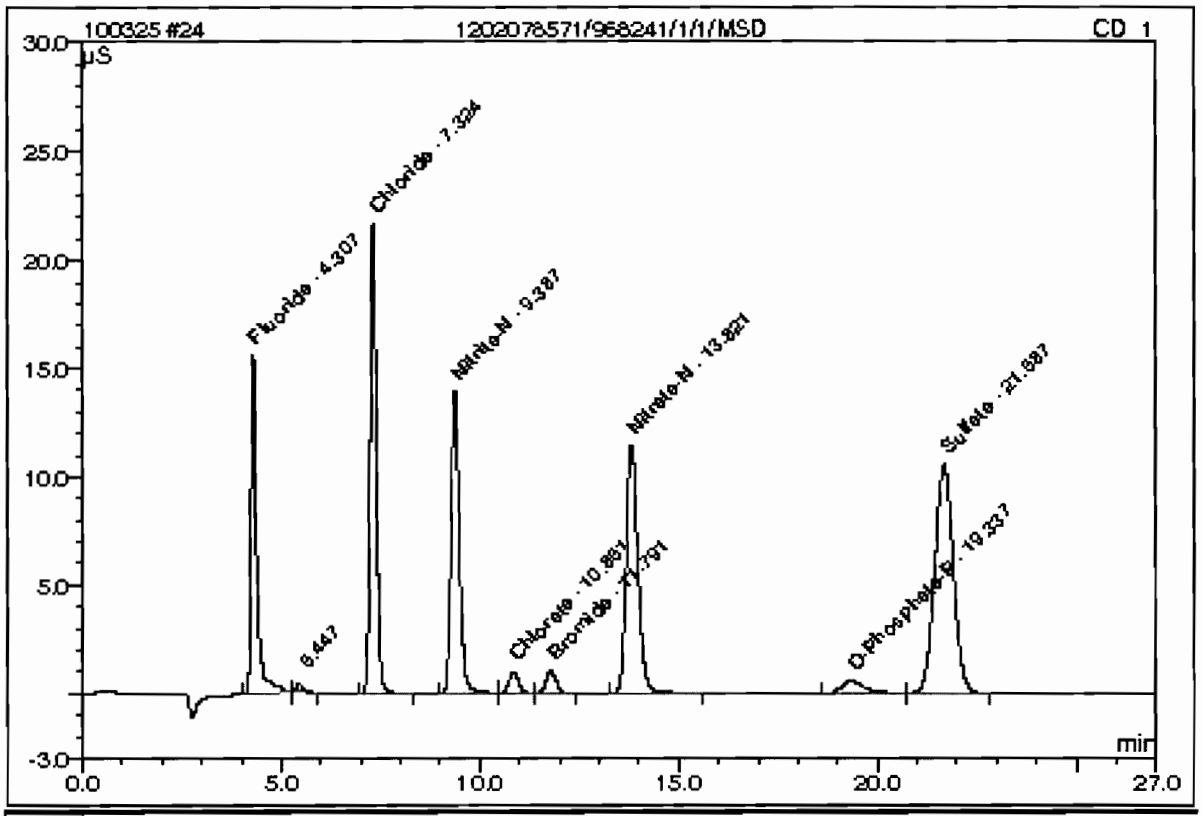
Sample Name:	1202078569/968241/1/1/MS	*Injection Volume:*	50.0
Vial Number:	35	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 7:25	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.1174		2.53841	12.31
3	7.32	Chloride	n.a.	10.9052		3.92910	19.05
4	9.39	Nitrite-N	n.a.	4.7204		3.43530	16.66
5	10.85	Chlorate	n.a.	2.4831		0.29788	1.44
6	11.79	Bromide	n.a.	2.4480		0.31326	1.52
7	13.82	Nitrate-N	n.a.	4.6876		3.91309	18.98
9	19.34	O-Phosphate-P	n.a.	1.4447		0.37983	1.84
10	21.69	Sulfate	n.a.	23.1220		5.70520	27.67
Total:				54.9284	0.000	20.512	99.47

24 1202078571/968241/1/1/MSD

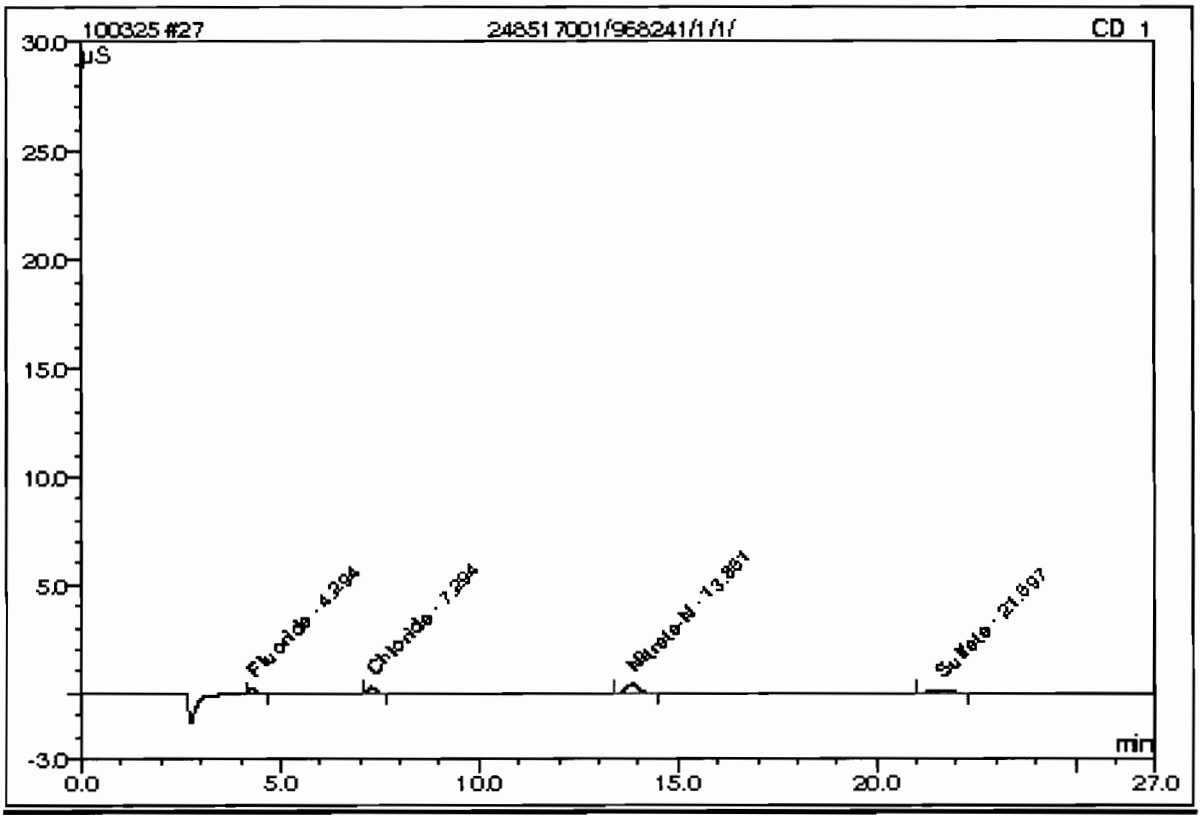
Sample Name:	1202078571/968241/1/1/MSD	*Injection Volume:*	50.0
Vial Number:	36	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 7:55	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.1215		2.54045	12.30
3	7.32	Chloride	n.a.	10.8866		3.92234	18.99
4	9.39	Nitrite-N	n.a.	4.7174		3.43306	16.62
5	10.85	Chlorate	n.a.	2.4555		0.29455	1.43
6	11.79	Bromide	n.a.	2.4241		0.31017	1.50
7	13.82	Nitrate-N	n.a.	4.7361		3.95444	19.14
8	19.34	O-Phosphate-P	n.a.	1.5720		0.41344	2.00
9	21.69	Sulfate	n.a.	23.1559		5.71367	27.66
Total:				55.0691	0.000	20.582	99.63

27 248517001/968241/1/1/

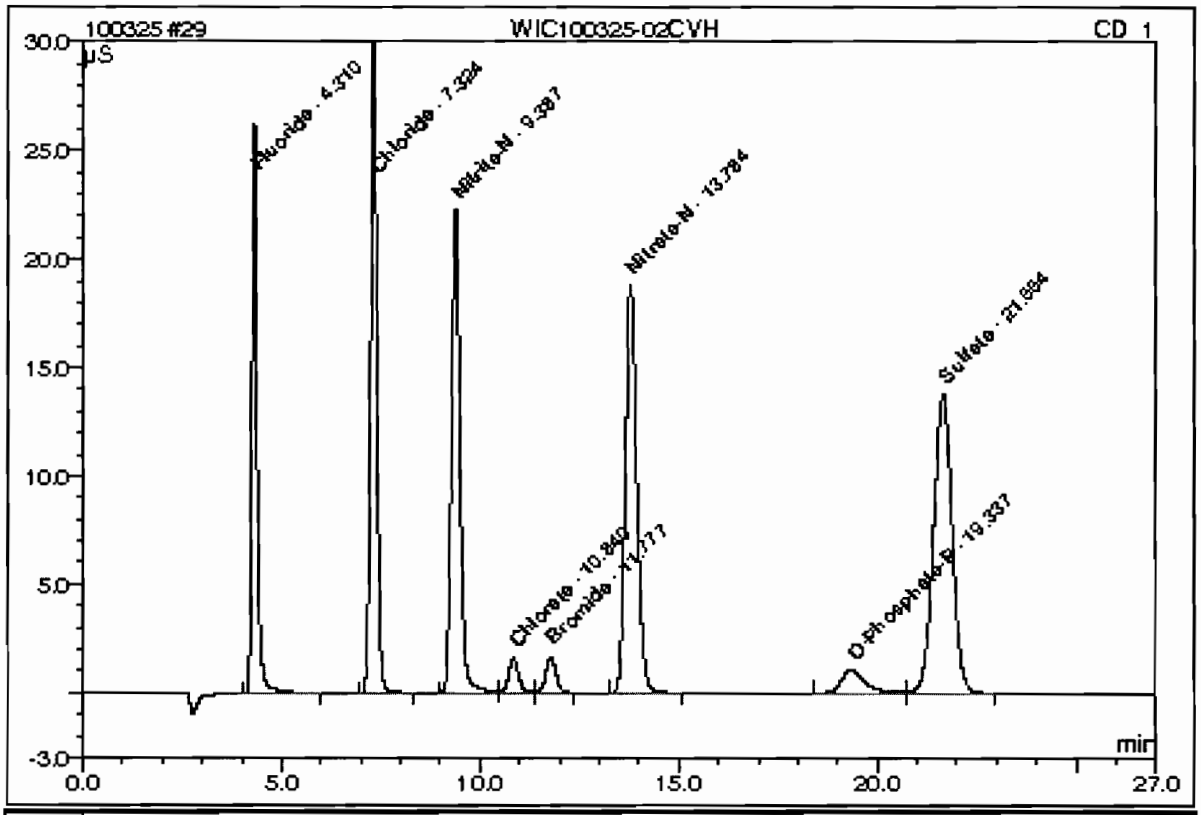
Sample Name:	248517001/968241/1/1/	*Injection Volume:*	50.0
Vial Number:	39	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 9:25	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	0.1300		0.03724	12.22
2	7.29	Chloride	n.a.	0.3042		0.05383	17.66
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.85	Nitrate-N	n.a.	0.2556		0.13779	45.20
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.60	Sulfate	n.a.	0.6070		0.07599	24.93
Total:				1.2969	0.000	0.305	100.00

29 WIC100325-02CVH

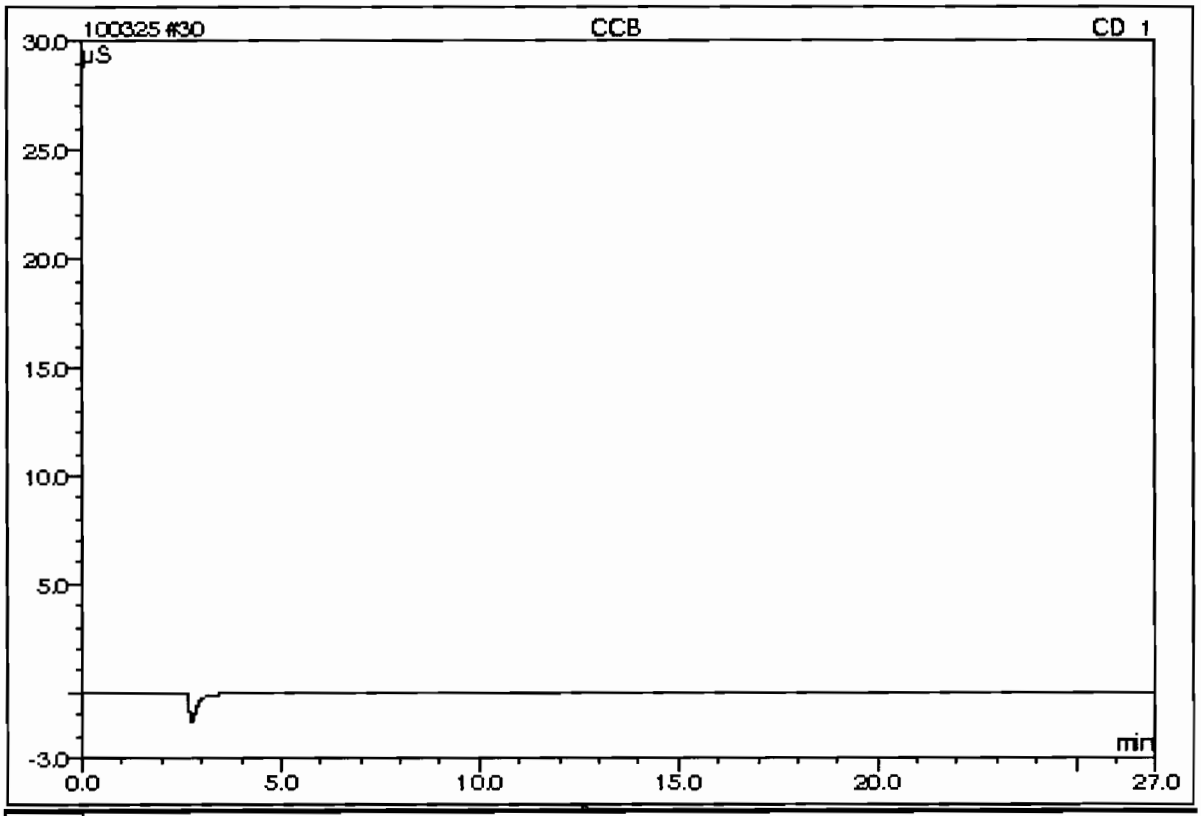
Sample Name:	WIC100325-02CVH	*Injection Volume:*	50.0
Vial Number:	41	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 10:24	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	7.7494		3.85838	12.78
2	7.32	Chloride	n.a.	14.9886		5.42184	17.96
3	9.39	Nitrite-N	n.a.	7.4976		5.47592	18.14
4	10.84	Chlorate	n.a.	3.7841		0.45499	1.51
5	11.78	Bromide	n.a.	3.7236		0.47778	1.58
6	13.78	Nitrate-N	n.a.	7.5210		6.32671	20.96
7	19.34	O-Phosphate-P	n.a.	2.7777		0.73186	2.42
8	21.65	Sulfate	n.a.	30.0356		7.43374	24.63
Total:				78.0777	0.000	30.181	100.00

30 CCB

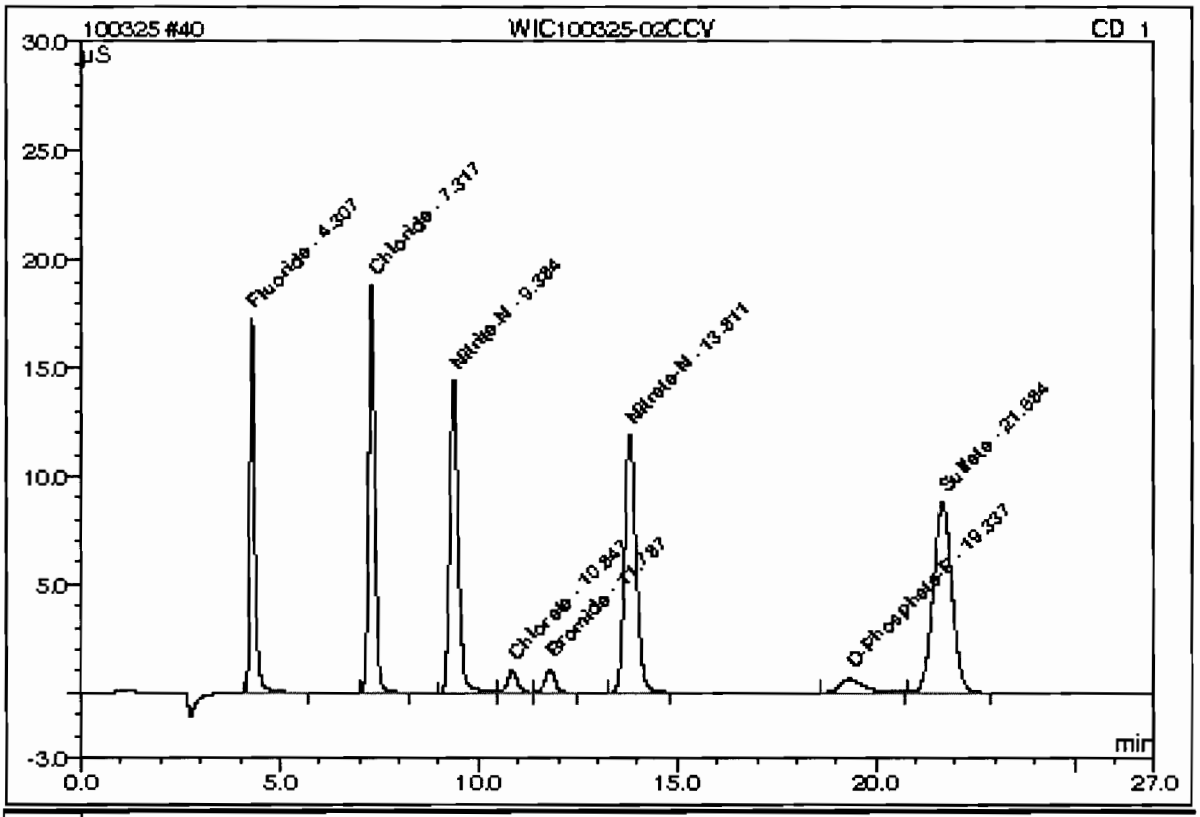
Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	42	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 10:54	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

40 WIC100325-02CCV

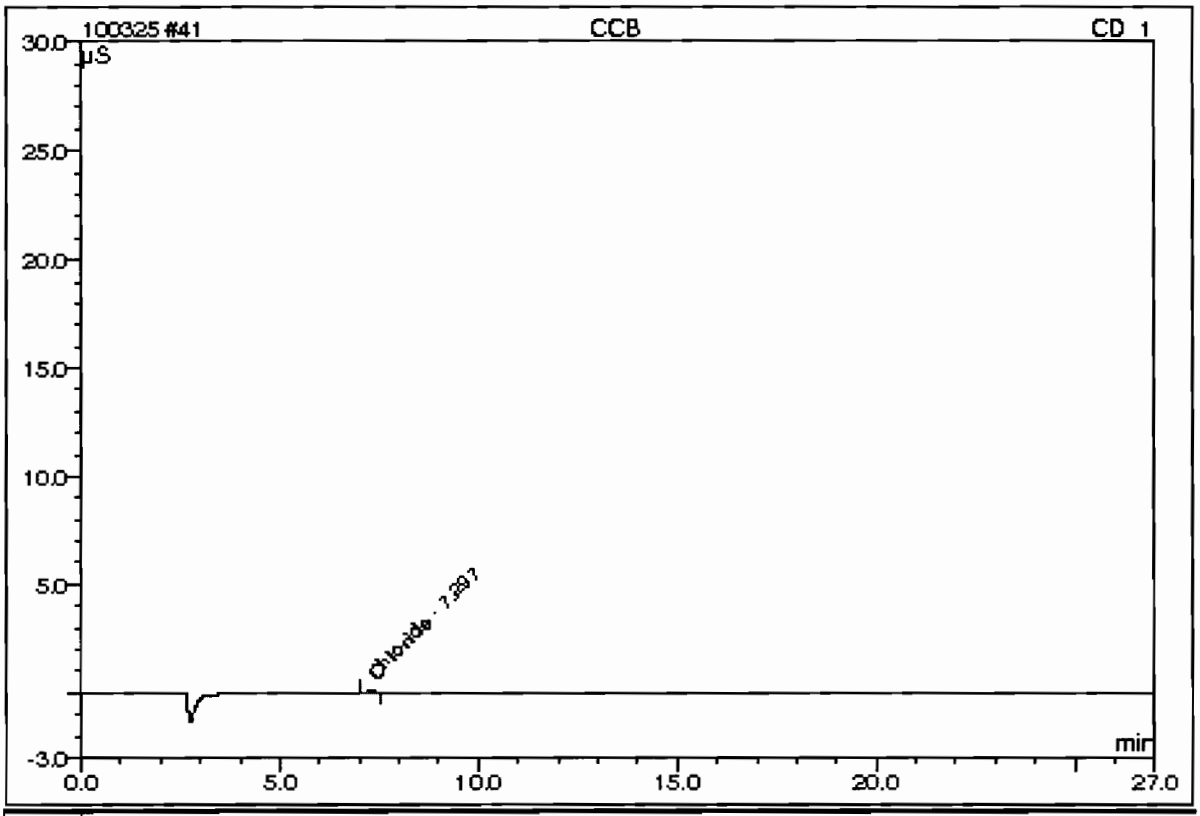
Sample Name:	WIC100325-02CCV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 15:53	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.0443		2.50174	12.97
2	7.32	Chloride	n.a.	9.5331		3.42755	17.77
3	9.38	Nitrite-N	n.a.	4.8746		3.54854	18.40
4	10.85	Chlorate	n.a.	2.5311		0.30369	1.57
5	11.79	Bromide	n.a.	2.5039		0.32046	1.66
6	13.81	Nitrate-N	n.a.	4.7985		4.00758	20.78
7	19.34	O-Phosphate-P	n.a.	1.6430		0.43220	2.24
8	21.68	Sulfate	n.a.	19.2787		4.74428	24.60
Total:				50.2072	0.000	19.286	100.00

41 CCB

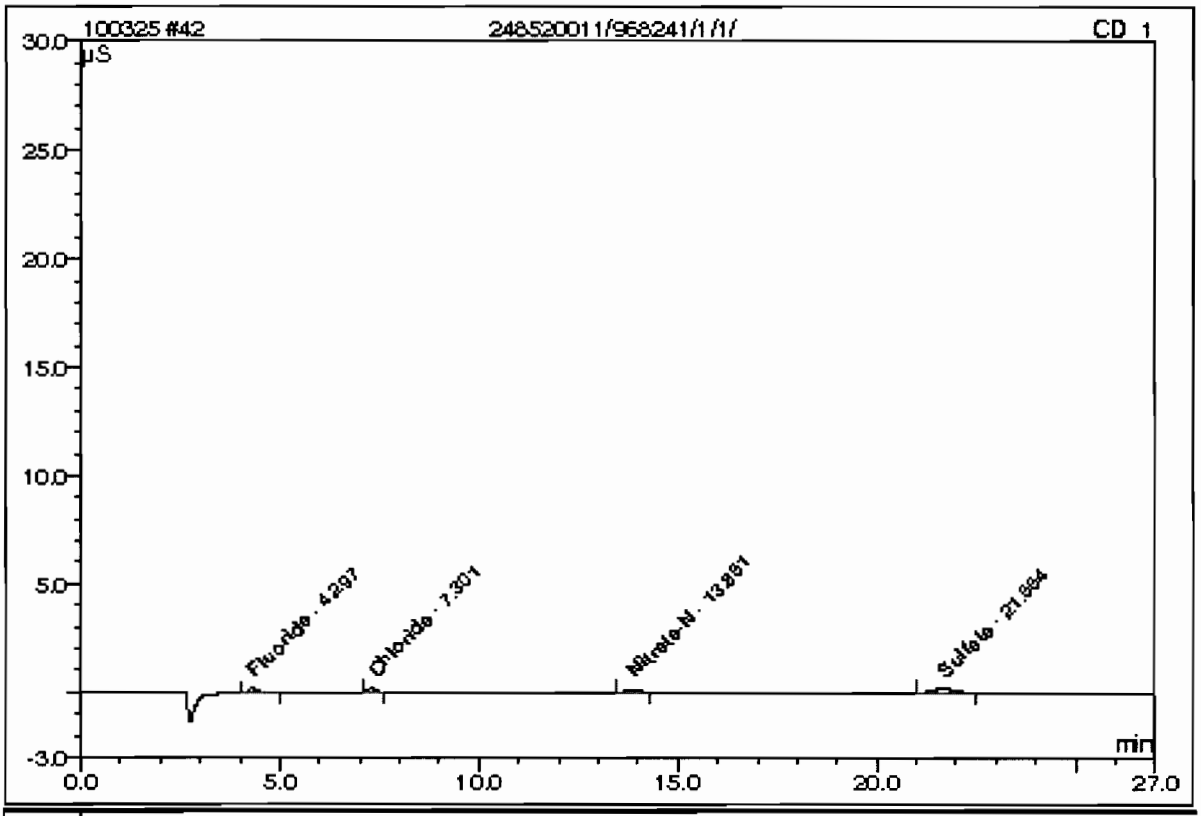
Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 16:23	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.30	Chloride	n.a.	0.1871		0.01101	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1871	0.000	0.011	100.00

42 248520011/968241/1/1/

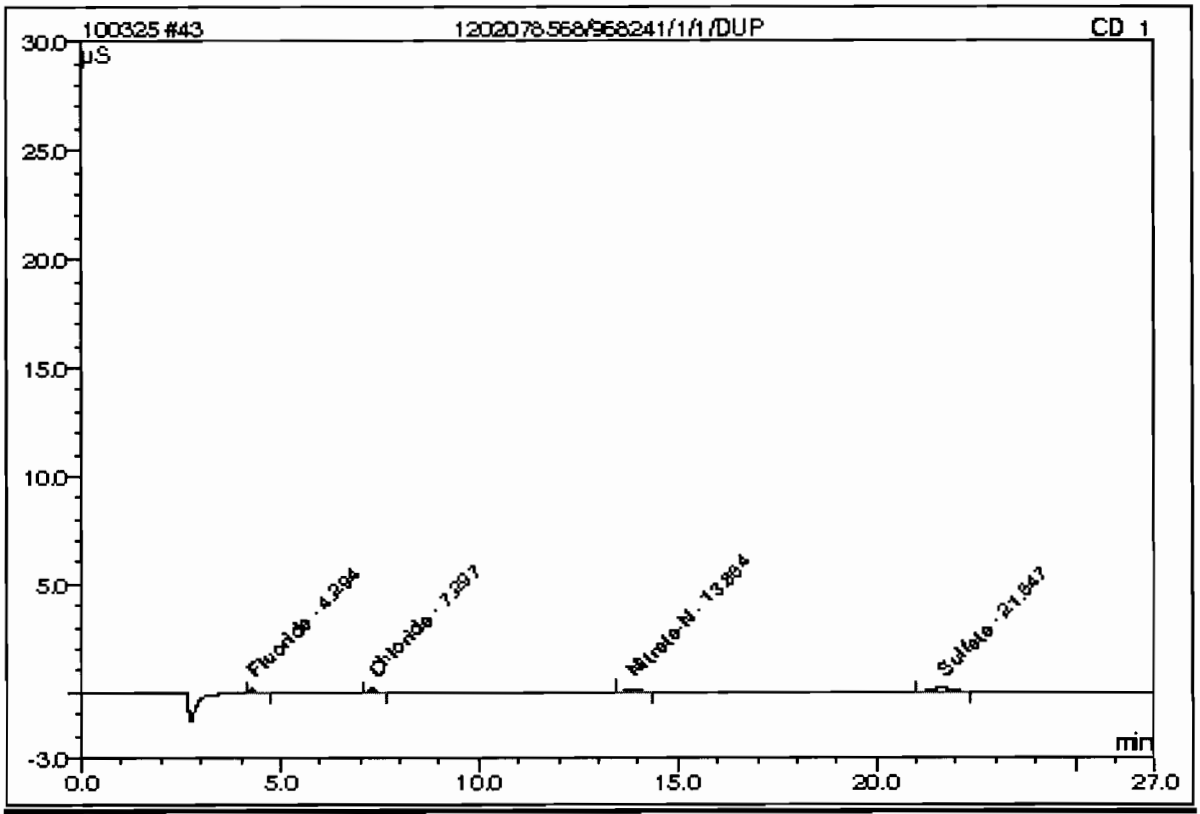
Sample Name:	248520011/968241/1/1/	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 16:52	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.1431		0.04382	19.29
2	7.30	Chloride	n.a.	0.2551		0.03586	15.79
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.86	Nitrate-N	n.a.	0.1479		0.04602	20.26
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.65	Sulfate	n.a.	0.7086		0.10141	44.65
Total:				1.2548	0.000	0.227	100.00

43 1202078568/968241/1/1/DUP

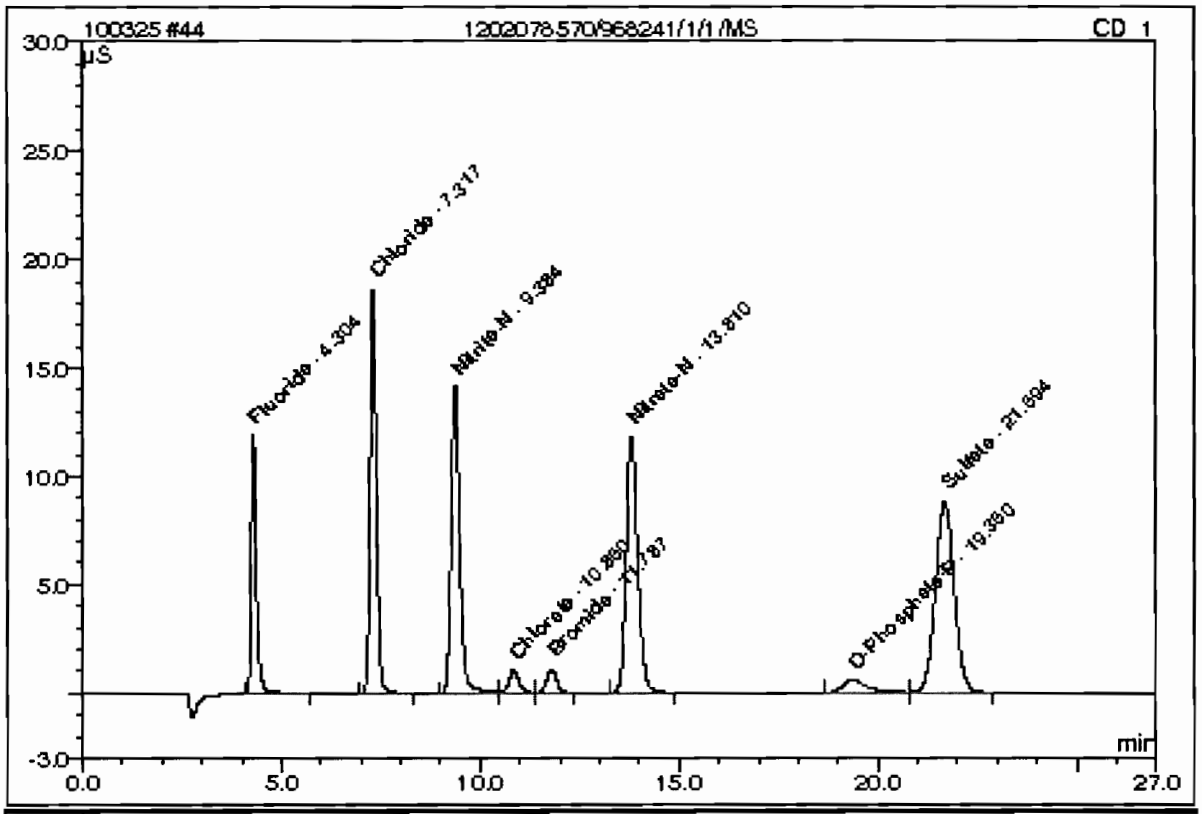
Sample Name:	1202078568/968241/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 17:22	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	0.1102		0.02729	13.57
2	7.30	Chloride	n.a.	0.2405		0.03051	15.17
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.85	Nitrate-N	n.a.	0.1478		0.04590	22.82
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.65	Sulfate	n.a.	0.6926		0.09740	48.44
Total:				1.1910	0.000	0.201	100.00

44 1202078570/968241/1/1/MS

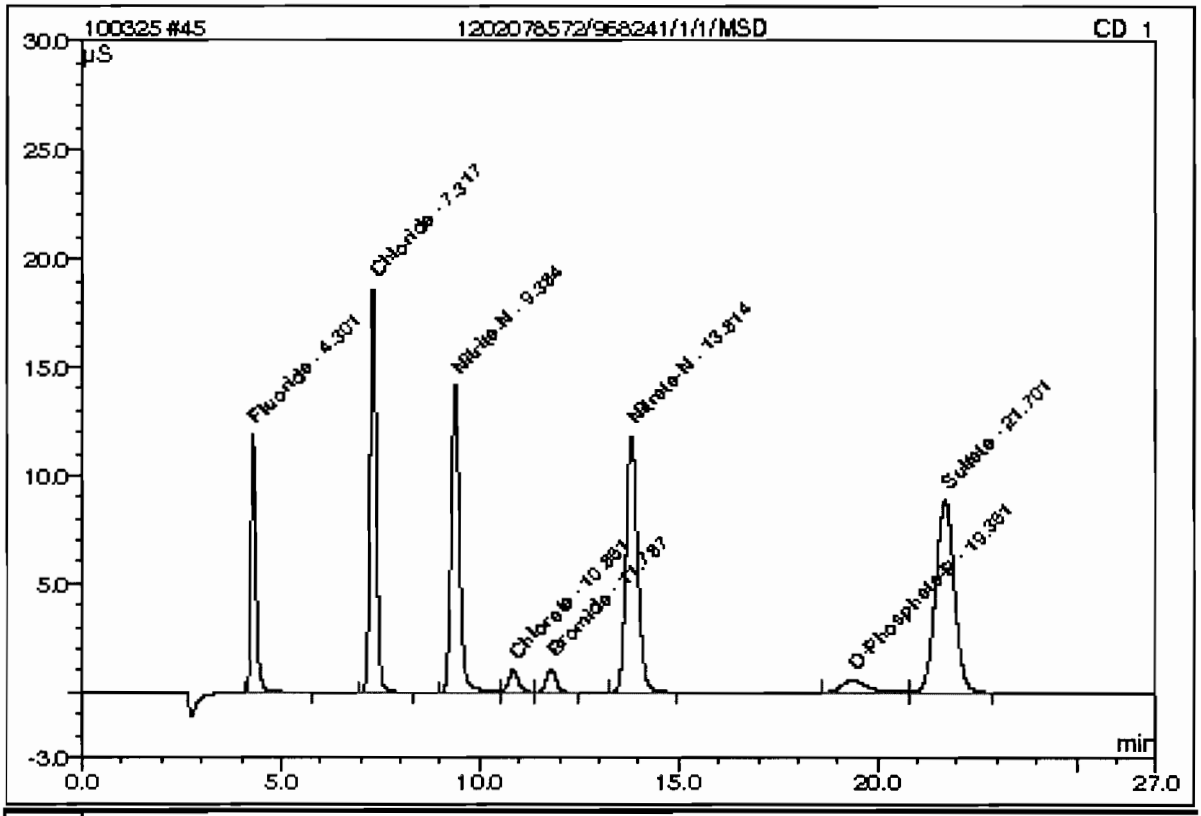
Sample Name:	1202078570/968241/1/1/MS	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 17:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	3.5221		1.73837	9.44
2	7.32	Chloride	n.a.	9.4280		3.38912	18.40
3	9.38	Nitrite-N	n.a.	4.7753		3.47562	18.87
4	10.85	Chlorate	n.a.	2.4770		0.29715	1.61
5	11.79	Bromide	n.a.	2.4331		0.31134	1.69
6	13.81	Nitrate-N	n.a.	4.7808		3.99249	21.67
7	19.36	O-Phosphate-P	n.a.	1.5413		0.40533	2.20
8	21.69	Sulfate	n.a.	19.5508		4.81233	26.12
Total:				48.5085	0.000	18.422	100.00

45 1202078572/968241/1/1/MSD

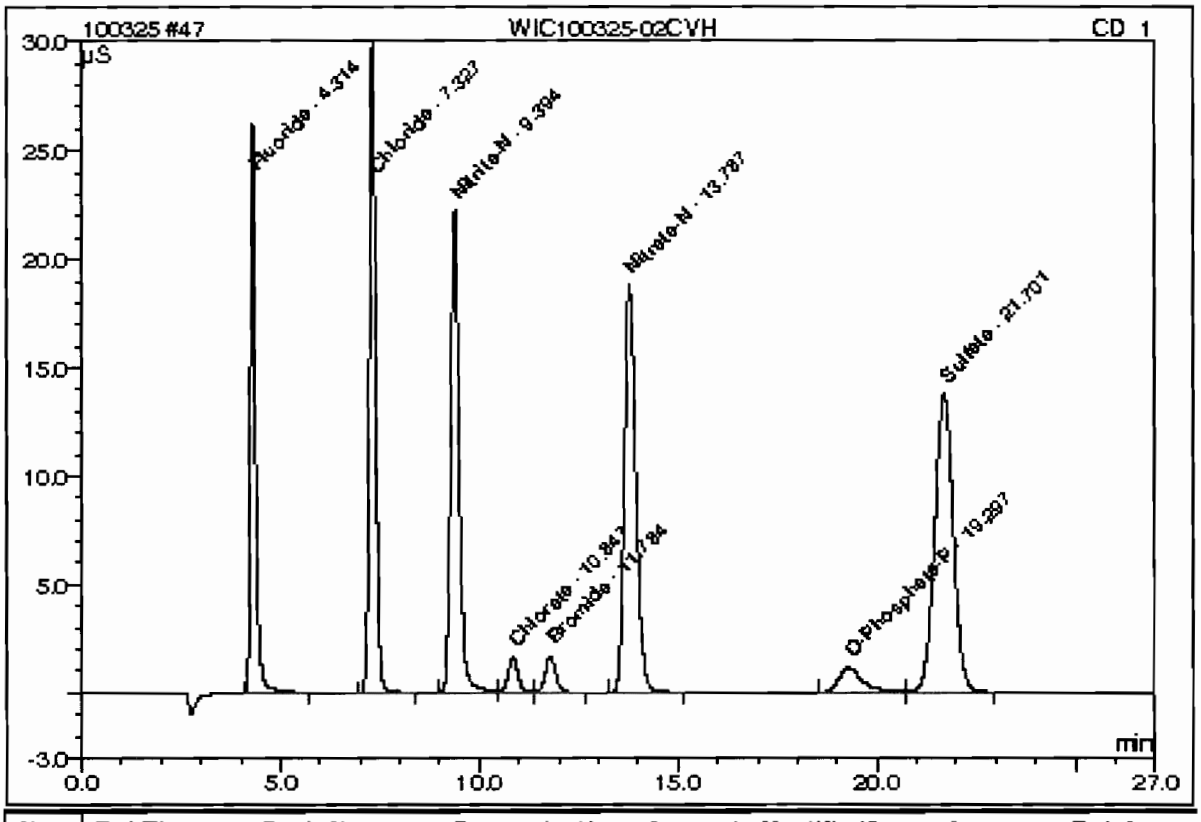
Sample Name:	1202078572/968241/1/1/MSD	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 18:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	3.5251		1.73988	9.41
2	7.32	Chloride	n.a.	9.4255		3.38820	18.33
3	9.38	Nitrite-N	n.a.	4.7877		3.48472	18.86
4	10.85	Chlorate	n.a.	2.4841		0.29801	1.61
5	11.79	Bromide	n.a.	2.4782		0.31715	1.72
6	13.81	Nitrate-N	n.a.	4.7832		3.99452	21.61
7	19.35	O-Phosphate-P	n.a.	1.6084		0.42305	2.29
8	21.70	Sulfate	n.a.	19.6434		4.83548	26.16
Total:				48.7356	0.000	18.481	100.00

47 WIC100325-02CVH

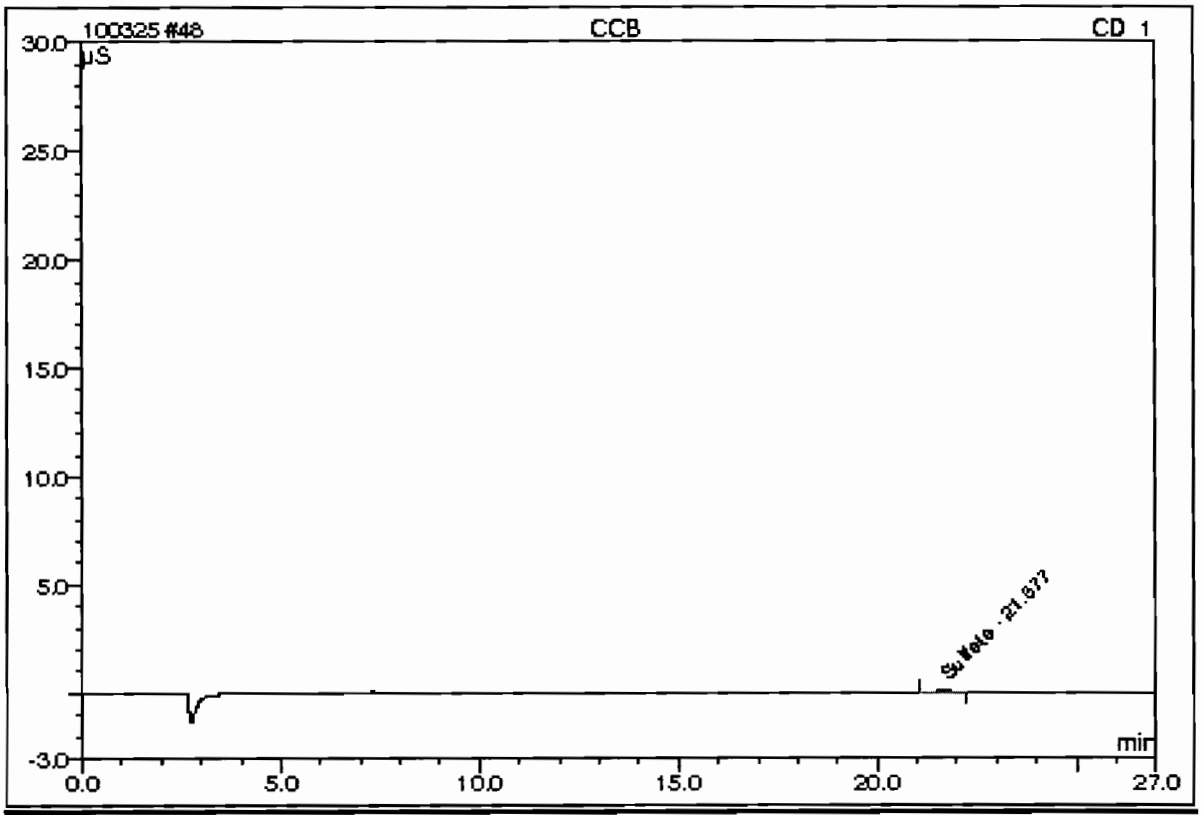
Sample Name:	WIC100325-02CVH	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 19:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	7.7291		3.84817	12.71
2	7.33	Chloride	n.a.	15.0072		5.42865	17.93
3	9.39	Nitrite-N	n.a.	7.5071		5.48285	18.11
4	10.85	Chlorate	n.a.	3.8727		0.46569	1.54
5	11.78	Bromide	n.a.	3.8605		0.49544	1.64
6	13.79	Nitrate-N	n.a.	7.5180		6.32417	20.89
7	19.30	O-Phosphate-P	n.a.	2.9296		0.77198	2.55
8	21.70	Sulfate	n.a.	30.1143		7.45342	24.62
Total:				78.5386	0.000	30.270	100.00

48 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/25/2010 19:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	21.68	Sulfate	n.a.	0.3873		0.02108	100.00
Total:				0.3873	0.000	0.021	100.00

pH

pH / Corrosivity LogBook

Analyst: TXT1
Batch: 961560
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	1MM091029-PH	PH 7 BUFFER FOR PH
LCS	1202062456	1MM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202062456 LCS		Soil	10:15	10:20	05-MAR-10 16:43	pH	20	20	6.95	17.1'C	7	99.286	
1202062456 LCS		Soil	10:15	10:20	05-MAR-10 16:43	pH 2	20	20	6.95	16.9'C	7	99.286	
248511008		Soil	10:15	10:20	05-MAR-10 16:44	pH	20	20	6.47	18.8'C			
248511008		Soil	10:15	10:20	05-MAR-10 16:44	pH 2	20	20	6.45	18.8'C			
1202062454 DUP	248511008	Soil	10:15	10:20	05-MAR-10 16:48	pH	20	20	6.43	18.9'C			.62
1202062454 DUP	248511008	Soil	10:15	10:20	05-MAR-10 16:48	pH 2	20	20	6.42	18.9'C			.466
248511009		Soil	10:15	10:20	05-MAR-10 16:52	pH	20	20	7.68	18.9'C			
248511009		Soil	10:15	10:20	05-MAR-10 16:52	pH 2	20	20	7.68	18.9'C			
1202062455 DUP	248511009	Soil	10:15	10:20	05-MAR-10 16:53	pH	20	20	7.76	19.0'C			1.036
1202062455 DUP	248511009	Soil	10:15	10:20	05-MAR-10 16:53	pH 2	20	20	7.75	19.0'C			.907
CCV			10:15	10:20	05-MAR-10 16:55	pH	20	20	6.98	17.1'C	7	99.714	
CCV			10:15	10:20	05-MAR-10 16:55	pH 2	20	20	6.98	17.1'C	7	99.714	
248511010		Soil	10:15	10:20	05-MAR-10 16:56	pH	20	20	7.58	18.9'C			
248511010		Soil	10:15	10:20	05-MAR-10 16:56	pH 2	20	20	7.58	18.9'C			
248511011		Soil	10:15	10:20	05-MAR-10 16:59	pH	20	20	6.4	18.9'C			
248511011		Soil	10:15	10:20	05-MAR-10 16:59	pH 2	20	20	6.37	18.9'C			
248511012		Soil	10:15	10:20	05-MAR-10 17:02	pH	20	20	6.68	18.9'C			
248511012		Soil	10:15	10:20	05-MAR-10 17:02	pH 2	20	20	6.67	18.9'C			
248511013		Soil	10:15	10:20	05-MAR-10 17:04	pH	20	20	6.13	18.9'C			
248511013		Soil	10:15	10:20	05-MAR-10 17:04	pH 2	20	20	6.11	19.0'C			
248511014		Soil	10:15	10:20	05-MAR-10 17:05	pH	20	20	6.29	19.0'C			
248511014		Soil	10:15	10:20	05-MAR-10 17:05	pH 2	20	20	6.27	19.0'C			
CCV			10:15	10:20	05-MAR-10 17:07	pH	20	20	7	17.2'C	7	100	
CCV			10:15	10:20	05-MAR-10 17:07	pH 2	20	20	6.99	17.2'C	7	99.857	
248511015		Soil	10:15	10:20	05-MAR-10 17:08	pH	20	20	6.54	19.0'C			
248511015		Soil	10:15	10:20	05-MAR-10 17:08	pH 2	20	20	6.49	19.0'C			
248511016		Soil	10:15	10:20	05-MAR-10 17:10	pH	20	20	6.09	19.1'C			
248511016		Soil	10:15	10:20	05-MAR-10 17:10	pH 2	20	20	6.07	19.1'C			

pH / Corrosivity LogBook

Analyst: TXT1
Batch: 961560
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202062456	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
248511017		Soil	10:15	10:20	05-MAR-10 17:12	pH	20	20	5.74	19.1'C			
248511017		Soil	10:15	10:20	05-MAR-10 17:12	pH 2	20	20	5.71	19.1'C			
248511018		Soil	10:15	10:20	05-MAR-10 17:15	pH	20	20	6.44	19.1'C			
248511018		Soil	10:15	10:20	05-MAR-10 17:15	pH 2	20	20	6.41	19.1'C			
248511019		Soil	10:15	10:20	05-MAR-10 17:18	pH	20	20	5.59	19.1'C			
248511019		Soil	10:15	10:20	05-MAR-10 17:18	pH 2	20	20	5.57	19.1'C			
CCV			10:15	10:20	05-MAR-10 17:20	pH	20	20	7	17.3'C	7	100	
CCV			10:15	10:20	05-MAR-10 17:20	pH 2	20	20	7	17.3'C	7	100	
248511020		Soil	10:15	10:20	05-MAR-10 17:21	pH	20	20	6.13	19.0'C			
248511020		Soil	10:15	10:20	05-MAR-10 17:21	pH 2	20	20	6.12	19.1'C			
248515001		Soil	10:15	10:20	05-MAR-10 17:23	pH	20	20	5.48	19.1'C			
248515001		Soil	10:15	10:20	05-MAR-10 17:23	pH 2	20	20	5.48	19.1'C			
248515002		Soil	10:15	10:20	05-MAR-10 17:25	pH	20	20	6.19	19.2'C			
248515002		Soil	10:15	10:20	05-MAR-10 17:25	pH 2	20	20	6.17	19.3'C			
248515003		Soil	10:15	10:20	05-MAR-10 17:26	pH	20	20	6.46	19.3'C			
248515003		Soil	10:15	10:20	05-MAR-10 17:26	pH 2	20	20	6.49	19.4'C			
248517001		Soil	10:15	10:20	05-MAR-10 17:28	pH	20	20	6.69	19.2'C			
248517001		Soil	10:15	10:20	05-MAR-10 17:28	pH 2	20	20	6.69	19.3'C			
CCV			10:15	10:20	05-MAR-10 17:29	pH	20	20	7.01	17.5'C	7	100.143	
CCV			10:15	10:20	05-MAR-10 17:29	pH 2	20	20	7.01	17.5'C	7	100.143	
248520001		Soil	10:15	10:20	05-MAR-10 17:30	pH	20	20	6.15	19.5'C			
248520001		Soil	10:15	10:20	05-MAR-10 17:30	pH 2	20	20	6.12	19.5'C			
248520002		Soil	10:15	10:20	05-MAR-10 17:33	pH	20	20	6.29	19.4'C			
248520002		Soil	10:15	10:20	05-MAR-10 17:33	pH 2	20	20	6.31	19.5'C			
248520003		Soil	10:15	10:20	05-MAR-10 17:35	pH	20	20	6.8	19.5'C			
248520003		Soil	10:15	10:20	05-MAR-10 17:35	pH 2	20	20	6.79	19.5'C			
CCV			10:15	10:20	05-MAR-10 17:38	pH	20	20	7.03	17.9'C	7	100.429	
CCV			10:15	10:20	05-MAR-10 17:38	pH 2	20	20	7.02	17.9'C	7	100.286	

pH / Corrosivity LogBook

Calibration Information:

Run Date: 05-MAR-10 08:00
Instrument: PHX370
Analyst: TXT1

Comments:

	Standard	Observed	Theoretical		C	%Recovery
08:00	IMM100305-PH1	4	4	SU	21.4	100
08:00	IMM100305-PH2	6.99	7	SU	21.4	99.857
08:00	UPH100305-PH3	9.97	10	SU	21.4	99.7
08:00	UPH100305-PH4	2.02	2	SU	21.4	101
08:00	UPH100305-PH5	11.94	12	SU	21.4	99.5
08:00	IMM100305-PH6	6.98	7	SU	21.4	99.714

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
961286	See Below		

Potentially affected work order(s)(SDG): 248517(10-2198),248527(10-2211)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for MS/MSD: QC 1202061952MS 1202061954MSD 2. Failed recovery for MS: QC 1202061952MS	1. The relative percent difference (RPD) between the matrix spike and its duplicate falls outside of the required acceptance limits due to sample non-homogenity . 2. The matrix spike falls outside of the client specified acceptance limits due to matrix interference.

Originator's Name:

Ashley Earl 23-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 23-MAR-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	958168	**Method:**	SW9012A Cyanide and Total
Prep Batch :	958167	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248518001	RE36-10-8294
1202054789	Method Blank (MB)
1202054790	248010001(RE46-10-13185) Sample Duplicate (DUP)
1202054791	248044002(CAPA-10-12771) Sample Duplicate (DUP)
1202054792	248010001(RE46-10-13185) Matrix Spike (MS)
1202054793	248044002(CAPA-10-12771) Matrix Spike (MS)
1202054794	248010001(RE46-10-13185) Matrix Spike Duplicate (MSD)
1202054795	248044002(CAPA-10-12771) Matrix Spike Duplicate (MSD)
1202054796	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: 248010001 (RE46-10-13185) and 248044002 (CAPA-10-12771).

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 RPD between the sample and its duplicate met the acceptance limits.

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: Nikki Edel Emore **Date:** 3.27.10

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: 10-2198-1 GEL Work Order: 248518

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 Nikki Edel Elmore 3.27.10

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: March 24, 2010

Client SDG: 10-2198-1

Client Sample ID: RE36-10-8294
Sample ID: 248518001
Matrix: W
Collect Date: 25-FEB-10 12:00
Receive Date: 03-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

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 03/08/10	1058	958168	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/05/10	1535	958167

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: March 24, 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: 248518

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 958168											
QC1202054790 248010001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/08/10 10:41
QC1202054791 248044002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				03/08/10 10:53
QC1202054796 LCS											
Cyanide, Total	50.0				50.4	ug/L		101	(90%-110%)		03/08/10 10:39
QC1202054789 MB											
Cyanide, Total				U	5.00	ug/L					03/08/10 10:38
QC1202054792 248010001 MS											
Cyanide, Total	100	U	ND		114	ug/L		114	(60%-144%)		03/08/10 10:41
QC1202054793 248044002 MS											
Cyanide, Total	100	U	ND		113	ug/L		113	(60%-144%)		03/08/10 10:54
QC1202054794 248010001 MSD											
Cyanide, Total	100	U	ND		111	ug/L	2.67	111	(0%-20%)		03/08/10 10:42
QC1202054795 248044002 MSD											
Cyanide, Total	100	U	ND		94.5	ug/L	17.8	94.5	(0%-20%)		03/08/10 10:55

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: **248518**

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: 24-MAR-2010 18:50

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-2198-1**

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-MAR-2010 10:32:54**	**OM_3-8-2010_10-24-48**	**147**	**150**	**98**	**(90%-110%)**	**Yes**
CCV	08-MAR-2010 10:47:11	OM_3-8-2010_10-24-48	105	100	105	(90%-110%)	Yes
CCV	08-MAR-2010 10:59:36	OM_3-8-2010_10-24-48	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-MAR-2010 10:34:44**	**OM_3-8-2010_10-24-48**	**-1.65**	**10**	**Yes**
CCB	08-MAR-2010 10:49:01	OM_3-8-2010_10-24-48	-1.67	10	Yes
CCB	08-MAR-2010 11:01:27	OM_3-8-2010_10-24-48	-1.82	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **958167.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054796	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202054792	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202054793	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054794	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054795	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054789 MB	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054796 LCS	05-MAR-2010 15:35:00	Water	25	25	1	>12
248010001	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054790 DUP (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054792 MS (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054794 MSD (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
248010002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248019001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248019002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248023002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248024001	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248024003	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248044002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054791 DUP (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054793 MS (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054795 MSD (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248401005	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248516001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248516002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248518001	05-MAR-2010 15:35:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **958167.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054796	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202054792	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202054793	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054794	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054795	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248533001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248548001	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248548003	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248551001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248551002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248555002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100305-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/8/2010 10:25:45	OM_3-8-2010_10-24-48
150 ppb		1	axc2	3/8/2010 10:26:37	OM_3-8-2010_10-24-48
100 ppb		1	axc2	3/8/2010 10:27:29	OM_3-8-2010_10-24-48
50 ppb		1	axc2	3/8/2010 10:28:22	OM_3-8-2010_10-24-48
10 ppb		1	axc2	3/8/2010 10:29:15	OM_3-8-2010_10-24-48
CRDL 5.0 ppb		1	axc2	3/8/2010 10:30:09	OM_3-8-2010_10-24-48
ICAL-00		1	axc2	3/8/2010 10:31:03	OM_3-8-2010_10-24-48
ICV		1	axc2	3/8/2010 10:32:54	OM_3-8-2010_10-24-48
ICB		1	axc2	3/8/2010 10:34:44	OM_3-8-2010_10-24-48
CRDL		1	axc2	3/8/2010 10:36:34	OM_3-8-2010_10-24-48
1202054789	958168	1	axc2	3/8/2010 10:38:23	OM_3-8-2010_10-24-48
1202054796	958168	1	axc2	3/8/2010 10:39:17	OM_3-8-2010_10-24-48
248010001	958168	1	axc2	3/8/2010 10:40:10	OM_3-8-2010_10-24-48
1202054790	958168	1	axc2	3/8/2010 10:41:03	OM_3-8-2010_10-24-48
1202054792	958168	1	axc2	3/8/2010 10:41:56	OM_3-8-2010_10-24-48
1202054794	958168	1	axc2	3/8/2010 10:42:48	OM_3-8-2010_10-24-48
248010002	958168	1	axc2	3/8/2010 10:43:42	OM_3-8-2010_10-24-48
248019001	958168	1	axc2	3/8/2010 10:44:34	OM_3-8-2010_10-24-48
248019002	958168	1	axc2	3/8/2010 10:45:26	OM_3-8-2010_10-24-48
248023002	958168	1	axc2	3/8/2010 10:46:19	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:47:11	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 10:49:01	OM_3-8-2010_10-24-48
248024001	958168	1	axc2	3/8/2010 10:50:50	OM_3-8-2010_10-24-48
248024003	958168	1	axc2	3/8/2010 10:51:41	OM_3-8-2010_10-24-48
248044002	958168	1	axc2	3/8/2010 10:52:34	OM_3-8-2010_10-24-48
1202054791	958168	1	axc2	3/8/2010 10:53:25	OM_3-8-2010_10-24-48
1202054793	958168	1	axc2	3/8/2010 10:54:17	OM_3-8-2010_10-24-48
1202054795	958168	1	axc2	3/8/2010 10:55:10	OM_3-8-2010_10-24-48
248401005	958168	1	axc2	3/8/2010 10:56:04	OM_3-8-2010_10-24-48
248516001	958168	1	axc2	3/8/2010 10:56:58	OM_3-8-2010_10-24-48
248516002	958168	1	axc2	3/8/2010 10:57:51	OM_3-8-2010_10-24-48
248518001	958168	1	axc2	3/8/2010 10:58:44	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:59:36	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:01:27	OM_3-8-2010_10-24-48
248533001	958168	1	axc2	3/8/2010 11:03:16	OM_3-8-2010_10-24-48
248548001	958168	1	axc2	3/8/2010 11:04:09	OM_3-8-2010_10-24-48
248548003	958168	1	axc2	3/8/2010 11:05:01	OM_3-8-2010_10-24-48
248551001	958168	1	axc2	3/8/2010 11:05:54	OM_3-8-2010_10-24-48
248551002	958168	1	axc2	3/8/2010 11:06:46	OM_3-8-2010_10-24-48
248555002	958168	1	axc2	3/8/2010 11:07:39	OM_3-8-2010_10-24-48
1202059721	960271	1	axc2	3/8/2010 11:08:31	OM_3-8-2010_10-24-48
1202059731	960271	1	axc2	3/8/2010 11:09:23	OM_3-8-2010_10-24-48
248072001	960271	1	axc2	3/8/2010 11:10:15	OM_3-8-2010_10-24-48
1202059722	960271	1	axc2	3/8/2010 11:11:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:11:59	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:13:49	OM_3-8-2010_10-24-48
1202059725	960271	1	axc2	3/8/2010 11:15:40	OM_3-8-2010_10-24-48
1202059728	960271	1	axc2	3/8/2010 11:16:33	OM_3-8-2010_10-24-48
248072002	960271	1	axc2	3/8/2010 11:17:27	OM_3-8-2010_10-24-48
248072003	960271	1	axc2	3/8/2010 11:18:21	OM_3-8-2010_10-24-48
248097001	960271	1	axc2	3/8/2010 11:19:14	OM_3-8-2010_10-24-48
1202059724	960271	1	axc2	3/8/2010 11:20:07	OM_3-8-2010_10-24-48
1202059727	960271	1	axc2	3/8/2010 11:21:00	OM_3-8-2010_10-24-48
1202059730	960271	1	axc2	3/8/2010 11:21:53	OM_3-8-2010_10-24-48
248097002	960271	1	axc2	3/8/2010 11:22:47	OM_3-8-2010_10-24-48
248097003	960271	1	axc2	3/8/2010 11:23:38	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:24:31	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:26:21	OM_3-8-2010_10-24-48

248097004	960271	1	axc2	3/8/2010	11:28:09	OM_3-8-2010_10-24-48
248298001	960271	1	axc2	3/8/2010	11:29:02	OM_3-8-2010_10-24-48
248298002	960271	1	axc2	3/8/2010	11:29:53	OM_3-8-2010_10-24-48
248298003	960271	1	axc2	3/8/2010	11:30:46	OM_3-8-2010_10-24-48
248303001	960271	1	axc2	3/8/2010	11:31:38	OM_3-8-2010_10-24-48
248337001	960271	1	axc2	3/8/2010	11:32:32	OM_3-8-2010_10-24-48
248375001	960271	1	axc2	3/8/2010	11:33:26	OM_3-8-2010_10-24-48
248375002	960271	1	axc2	3/8/2010	11:34:19	OM_3-8-2010_10-24-48
248397001	960271	1	axc2	3/8/2010	11:35:14	OM_3-8-2010_10-24-48
248397002	960271	1	axc2	3/8/2010	11:36:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:37:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:38:51	OM_3-8-2010_10-24-48
248407001	960271	1	axc2	3/8/2010	11:40:39	OM_3-8-2010_10-24-48
1202059723	960271	1	axc2	3/8/2010	11:41:33	OM_3-8-2010_10-24-48
1202059726	960271	1	axc2	3/8/2010	11:42:26	OM_3-8-2010_10-24-48
1202059729	960271	1	axc2	3/8/2010	11:43:19	OM_3-8-2010_10-24-48
248419001	960271	1	axc2	3/8/2010	11:44:11	OM_3-8-2010_10-24-48
248419002	960271	1	axc2	3/8/2010	11:45:04	OM_3-8-2010_10-24-48
1202053300	957584	1	axc2	3/8/2010	11:45:57	OM_3-8-2010_10-24-48
1202053310	957584	1	axc2	3/8/2010	11:46:49	OM_3-8-2010_10-24-48
247829002	957584	1	axc2	3/8/2010	11:47:41	OM_3-8-2010_10-24-48
1202053302	957584	1	axc2	3/8/2010	11:48:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:49:26	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:51:15	OM_3-8-2010_10-24-48
1202053305	957584	1	axc2	3/8/2010	11:53:05	OM_3-8-2010_10-24-48
1202053308	957584	1	axc2	3/8/2010	11:54:00	OM_3-8-2010_10-24-48
247865010	957584	1	axc2	3/8/2010	11:54:55	OM_3-8-2010_10-24-48
247865012	957584	1	axc2	3/8/2010	11:55:48	OM_3-8-2010_10-24-48
1202053303	957584	1	axc2	3/8/2010	11:56:41	OM_3-8-2010_10-24-48
1202053306	957584	1	axc2	3/8/2010	11:57:35	OM_3-8-2010_10-24-48
1202053309	957584	1	axc2	3/8/2010	11:58:28	OM_3-8-2010_10-24-48
247865013	957584	1	axc2	3/8/2010	11:59:21	OM_3-8-2010_10-24-48
247865014	957584	1	axc2	3/8/2010	12:00:15	OM_3-8-2010_10-24-48
247865015	957584	1	axc2	3/8/2010	12:01:07	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:02:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:03:51	OM_3-8-2010_10-24-48
247865016	957584	1	axc2	3/8/2010	12:05:41	OM_3-8-2010_10-24-48
247865017	957584	1	axc2	3/8/2010	12:06:33	OM_3-8-2010_10-24-48
247865018	957584	1	axc2	3/8/2010	12:07:25	OM_3-8-2010_10-24-48
247865019	957584	1	axc2	3/8/2010	12:08:18	OM_3-8-2010_10-24-48
247865020	957584	1	axc2	3/8/2010	12:09:10	OM_3-8-2010_10-24-48
247866001	957584	1	axc2	3/8/2010	12:10:05	OM_3-8-2010_10-24-48
247919001	957584	1	axc2	3/8/2010	12:10:59	OM_3-8-2010_10-24-48
247919002	957584	1	axc2	3/8/2010	12:11:53	OM_3-8-2010_10-24-48
247922004	957584	1	axc2	3/8/2010	12:12:48	OM_3-8-2010_10-24-48
1202053301	957584	1	axc2	3/8/2010	12:13:41	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:14:34	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:16:24	OM_3-8-2010_10-24-48
1202053304	957584	1	axc2	3/8/2010	12:18:14	OM_3-8-2010_10-24-48
1202053307	957584	1	axc2	3/8/2010	12:19:07	OM_3-8-2010_10-24-48
248164004	957584	1	axc2	3/8/2010	12:20:01	OM_3-8-2010_10-24-48
248382002	957584	1	axc2	3/8/2010	12:20:54	OM_3-8-2010_10-24-48
248382003	957584	1	axc2	3/8/2010	12:21:47	OM_3-8-2010_10-24-48
248401002	957584	1	axc2	3/8/2010	12:22:40	OM_3-8-2010_10-24-48
248401004	957584	1	axc2	3/8/2010	12:23:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:24:25	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:26:15	OM_3-8-2010_10-24-48

Author: axc2 Date : 3/8/2010

Original Run Filename: OM_3-8-2010_10-24-48.OMN created 3/8/2010 10:24:48
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-8-2010_10-24-48.OMN last modified 3/8/2010 12:27:20
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
WCN100308-01	1	S1	200	10.4	3/8/2010@10:25:45			200 ppb
WCN100308-02	1	S2	150	7.82	3/8/2010@10:26:37			150 ppb
WCN100308-03	1	S3	100	5.36	3/8/2010@10:27:29			100 ppb
WCN100308-04	1	S4	50.0	2.85	3/8/2010@10:28:22			50 ppb
WCN100308-05	1	S5	10.0	0.644	3/8/2010@10:29:15			10 ppb
WCN100308-06	1	S6	5.00	0.400	3/8/2010@10:30:09			CRDL 5.0 ppb
WCN100308-08	1	S7	0.00	-0.0189	3/8/2010@10:31:03			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100308-07	1	S8	147	7.72	3/8/2010@10:32:54			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100308-08	1	S7	-1.65	0.0363	3/8/2010@10:34:44			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.65 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.65 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100308-06	1	S6	5.25	0.393	3/8/2010@10:36:34			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.25 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.25 > 2.50					
		Message	Pass					
		Action	None					
1202054789|958168|MB	1	1	-1.83	0.0269	3/8/2010@10:38:23			
1202054796||LCS	1	2	50.4	2.73	3/8/2010@10:39:17			
248010001	1	3	-1.53	0.0427	3/8/2010@10:40:10			
1202054790||DUP	1	4	-1.69	0.0344	3/8/2010@10:41:03			
1202054792||MS	1	5	114	6.01	3/8/2010@10:41:56			
1202054794||MSD	1	6	111	5.86	3/8/2010@10:42:48			
248010002	1	7	-1.44	0.0471	3/8/2010@10:43:42			
248019001	1	8	-1.39	0.0498	3/8/2010@10:44:34			
248019002	1	9	-1.40	0.0491	3/8/2010@10:45:26			
248023002	1	10	-1.75	0.0312	3/8/2010@10:46:19			
WCN100308-03	1	S3	105	5.54	3/8/2010@10:47:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.67	0.0352	3/8/2010@10:49:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248024001	1	11	-2.29	0.00319	3/8/2010@10:50:50			
248024003	1	12	-0.940	0.0730	3/8/2010@10:51:41			
248044002	1	13	-1.78	0.0297	3/8/2010@10:52:34			
1202054791||DUP	1	14	-1.89	0.0237	3/8/2010@10:53:25			
1202054793||MS	1	15	113	5.97	3/8/2010@10:54:17			
1202054795||MSD	1	16	94.5	5.01	3/8/2010@10:55:10			
248401005	1	17	-2.36	-4.50e-4	3/8/2010@10:56:04			
248516001	1	18	-1.70	0.0336	3/8/2010@10:56:58			
248516002	1	19	-2.03	0.0168	3/8/2010@10:57:51			
248518001	1	20	-2.35	3.13e-4	3/8/2010@10:58:44			
WCN100308-03	1	S3	107	5.64	3/8/2010@10:59:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.82	0.0275	3/8/2010@11:01:27			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					
248533001	1	21	-1.85	0.0260	3/8/2010@11:03:16			
248548001	1	22	-2.24	0.00579	3/8/2010@11:04:09			
248548003	1	23	-1.45	0.0465	3/8/2010@11:05:01			
248551001	1	24	-0.552	0.0931	3/8/2010@11:05:54			
248551002	1	25	-1.81	0.0281	3/8/2010@11:06:46			
248555002	1	26	-1.99	0.0185	3/8/2010@11:07:39			
1202059721|960271|MB	1	27	-1.70	0.0339	3/8/2010@11:08:31			
1202059731||LCS	1	28	49.0	2.66	3/8/2010@11:09:23			
248072001	1	29	-2.36	-5.25e-4	3/8/2010@11:10:15			
1202059722||DUP	1	30	-1.95	0.0206	3/8/2010@11:11:06			
WCN100308-03	1	S3	105	5.54	3/8/2010@11:11:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.72	0.0325	3/8/2010@11:13:49			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.72 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.72 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202059725||MS	1	31	102	5.41	3/8/2010@11:15:40			
1202059728||MSD	1	32	101	5.33	3/8/2010@11:16:33			
248072002	1	33	-1.30	0.0543	3/8/2010@11:17:27			
248072003	1	34	-2.90	-0.0286	3/8/2010@11:18:21			
248097001	1	35	-1.88	0.0245	3/8/2010@11:19:14			
1202059724||DUP	1	36	-1.58	0.0398	3/8/2010@11:20:07			
1202059727||MS	1	37	100	5.32	3/8/2010@11:21:00			
1202059730||MSD	1	38	102	5.39	3/8/2010@11:21:53			
248097002	1	39	12.3	0.757	3/8/2010@11:22:47			
248097003	1	40	-1.04	0.0680	3/8/2010@11:23:38			
WCN100308-03	1	S3	106	5.63	3/8/2010@11:24:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.68	0.0346	3/8/2010@11:26:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.68 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.68 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248097004	1	41	-0.871	0.0766	3/8/2010@11:28:09			
248298001	1	42	-1.67	0.0350	3/8/2010@11:29:02			
248298002	1	43	-1.93	0.0216	3/8/2010@11:29:53			
248298003	1	44	-0.109	0.116	3/8/2010@11:30:46			
248303001	1	45	2.92	0.273	3/8/2010@11:31:38			
248337001	1	46	-2.49	-0.00692	3/8/2010@11:32:32			
248375001	1	47	-2.35	1.70e-4	3/8/2010@11:33:26			
248375002	1	48	-2.05	0.0157	3/8/2010@11:34:19			
248397001	1	49	-1.87	0.0247	3/8/2010@11:35:14			
248397002	1	50	-2.17	0.00925	3/8/2010@11:36:06			
WCN100308-03	1	S3	106	5.62	3/8/2010@11:37:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-2.34	8.36e-4	3/8/2010@11:38:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.34 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.34 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248407001	1	51	-1.69	0.0345	3/8/2010@11:40:39			
1202059723||DUP	1	52	-2.37	-0.00102	3/8/2010@11:41:33			
1202059726||MS	1	53	104	5.51	3/8/2010@11:42:26			
1202059729||MSD	1	54	82.4	4.39	3/8/2010@11:43:19			
248419001	1	55	-1.45	0.0465	3/8/2010@11:44:11			
248419002	1	56	-1.82	0.0276	3/8/2010@11:45:04			
1202053300|957584|MB	1	57	-1.77	0.0301	3/8/2010@11:45:57			
1202053310||LCS	1	58	52.0	2.81	3/8/2010@11:46:49			
247829002	1	59	-1.36	0.0515	3/8/2010@11:47:41			
1202053302||DUP	1	60	-1.35	0.0518	3/8/2010@11:48:33			
WCN100308-03	1	S3	107	5.65	3/8/2010@11:49:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.71	0.0332	3/8/2010@11:51:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.71 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.71 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202053305||MS	1	61	108	5.71	3/8/2010@11:53:05			
1202053308||MSD	1	62	108	5.72	3/8/2010@11:54:00			
247865010	1	63	-1.12	0.0636	3/8/2010@11:54:55			
247865012	1	64	-1.20	0.0593	3/8/2010@11:55:48			
1202053303||DUP	1	65	-1.53	0.0427	3/8/2010@11:56:41			
1202053306||MS	1	66	86.3	4.59	3/8/2010@11:57:35			
1202053309||MSD	1	67	102	5.39	3/8/2010@11:58:28			
247865013	1	68	-1.42	0.0483	3/8/2010@11:59:21			
247865014	1	69	-1.44	0.0472	3/8/2010@12:00:15			
247865015	1	70	-1.50	0.0439	3/8/2010@12:01:07			
WCN100308-03	1	S3	106	5.63	3/8/2010@12:02:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.63	0.0372	3/8/2010@12:03:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.63 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.63 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247865016	1	71	-1.63	0.0374	3/8/2010@12:05:41			
247865017	1	72	-1.38	0.0501	3/8/2010@12:06:33			
247865018	1	73	-2.31	0.00203	3/8/2010@12:07:25			
247865019	1	74	-1.70	0.0337	3/8/2010@12:08:18			
247865020	1	75	-1.21	0.0589	3/8/2010@12:09:10			
247866001	1	76	-1.82	0.0273	3/8/2010@12:10:05			
247919001	1	77	-1.59	0.0392	3/8/2010@12:10:59			
247919002	1	78	-1.41	0.0486	3/8/2010@12:11:53			

247922004	1	79	0.739	0.160	3/8/2010@12:12:48			
1202053301||DUP	1	80	0.641	0.155	3/8/2010@12:13:41			
WCN100308-03	1	S3	107	5.65	3/8/2010@12:14:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.86	0.0256	3/8/2010@12:16:24			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					
1202053304||MS	1	81	98.2	5.21	3/8/2010@12:18:14			
1202053307||MSD	1	82	98.4	5.21	3/8/2010@12:19:07			
248164004	1	83	-1.49	0.0445	3/8/2010@12:20:01			
248382002	1	84	-1.58	0.0400	3/8/2010@12:20:54			
248382003	1	85	-1.82	0.0273	3/8/2010@12:21:47			
248401002	1	86	-1.52	0.0428	3/8/2010@12:22:40			
248401004	1	87	-1.38	0.0501	3/8/2010@12:23:33			
WCN100308-03	1	S3	106	5.59	3/8/2010@12:24:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.71	0.0334	3/8/2010@12:26:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.71 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.71 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-8-2010_10-24-48.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 : 3/8/2010

Channel 1: Current View

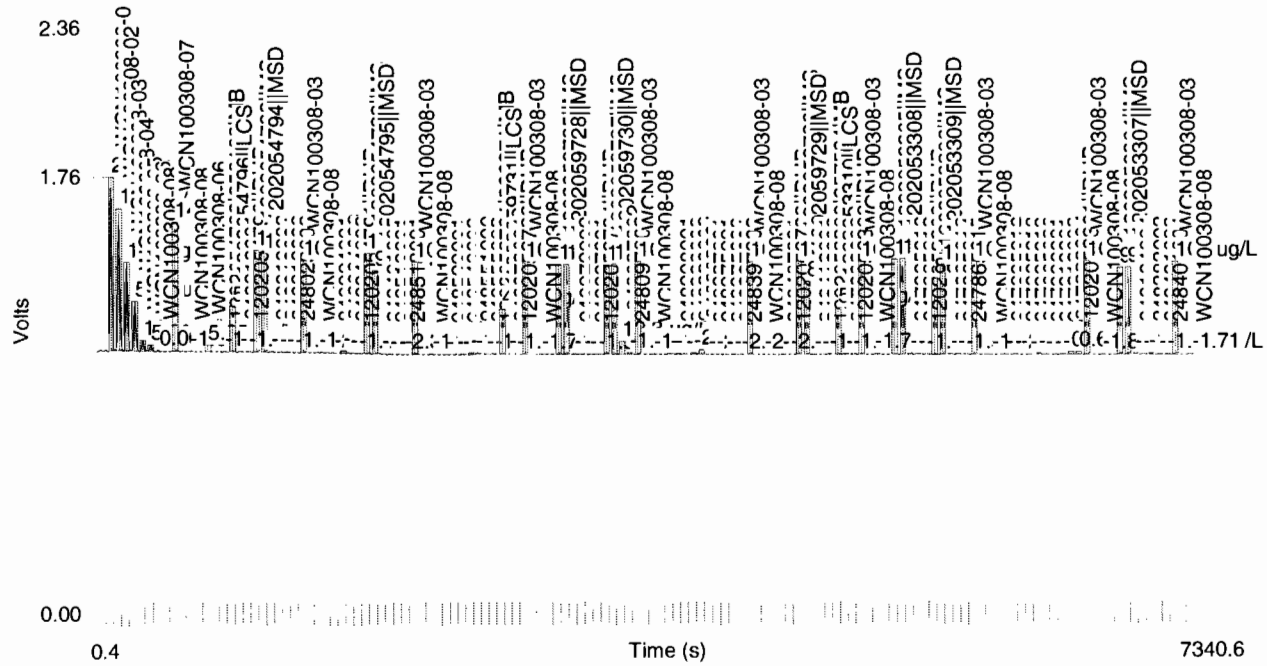
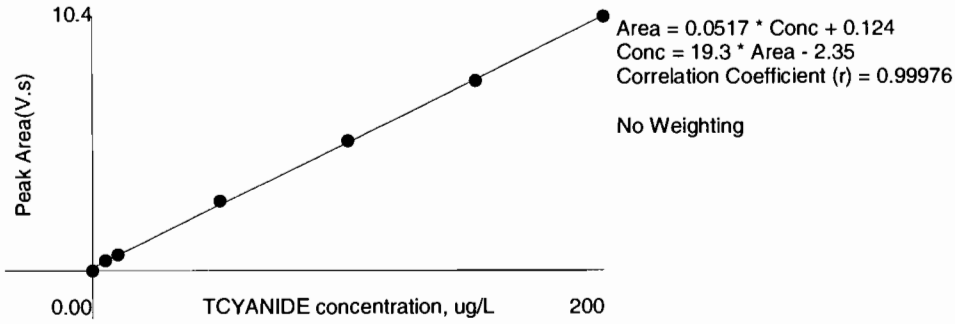


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.692	0.2	3/8/2010	10:26:48
2	150	1	7.82	0.567	0.7	3/8/2010	10:27:40
3	100	1	5.36	0.353	-1.3	3/8/2010	10:28:32
4	50.0	1	2.85	0.199	-5.1	3/8/2010	10:29:25
5	10.0	1	0.644	0.0420	-0.6	3/8/2010	10:30:18
6	5.00	1	0.400	0.0240	-4.6	3/8/2010	10:31:12
7	0.00	1	-0.0189	-0.00306		3/8/2010	10:32:06

Figure 1: TCYANIDE



RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2198

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	961009

Sample ID	Client ID
248517001	RE36-10-8292
1202061262	248515001(RE36-10-7501) Sample Duplicate (DUP)

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-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248515001 (RE36-10-7501). The QC was from LANL work order 248515.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965494
Prep Batch Number:	961009

Sample ID	Client ID
248517001	RE36-10-8292
1202071661	Method Blank (MB)
1202071662	248526001(RE36-10-8466) Sample Duplicate (DUP)
1202071663	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-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071661 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248526001 (RE36-10-8466). The QC was from LANL work order 248526.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965495
Prep Batch Number:	961009

Sample ID	Client ID
248517001	RE36-10-8292
1202071664	Method Blank (MB)
1202071665	248526001(RE36-10-8466) Sample Duplicate (DUP)
1202071666	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-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071664 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248526001 (RE36-10-8466). The QC was from LANL work order 248526.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202071665 (RE36-10-8466), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965496
Prep Batch Number:	961009

Sample ID	**Client ID**
248517001	RE36-10-8292
1202071667	Method Blank (MB)
1202071668	248526001(RE36-10-8466) Sample Duplicate (DUP)
1202071669	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-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071667 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248526001 (RE36-10-8466). The QC was from LANL work order 248526.

QC Information
All of the QC samples met the required acceptance limits.

CSU

The U233/234 and U238 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	961099
Prep Batch Number:	961009

Sample ID	Client ID
248517001	RE36-10-8292
1202061469	Method Blank (MB)
1202061470	248526001(RE36-10-8466) Sample Duplicate (DUP)
1202061471	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-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in April 2009, August 2009, October 2009, November 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248526001 (RE36-10-8466). The QC was from LANL work order 248526.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank 1202061469 (MB) result is greater than 1.65 times the CSU but less than the MDC for Am-241.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank 1202061469 (MB) result is greater than the decision level but less than the MDC Am-241.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248517001	RE36-10-8292
			1202061470	RE36-10-8466(248526001DUP)
		Cadmium-109	248517001	RE36-10-8292
			1202061470	RE36-10-8466(248526001DUP)
		Radium-224	248517001	RE36-10-8292
			1202061470	RE36-10-8466(248526001DUP)
UI	Data rejected due to low abundance.	Strontium-85	248517001	RE36-10-8292

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	964063

Sample ID	Client ID
248517001	RE36-10-8292
1202068228	Method Blank (MB)
1202068229	248526001(RE36-10-8466) Sample Duplicate (DUP)
1202068230	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-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248526001 (RE36-10-8466). The QC was from LANL work order 248526.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

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/Date: Paul Wells 3/30/10

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: 10-2198 GEL Work Order: 248517

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 Pamela Wallace

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

Report Date: March 30, 2010

Client Sample ID:	RE36-10-8292	Project:	LANL01004
Sample ID:	248517001	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-FEB-10		
Receive Date:	03-MAR-10		
Collector:	Client		
Moisture:	22.1%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-3.90E-05	0.0202	+/-0.00138	0.050	pCi/g		MXE1	03/25/10	2212	965494	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00572	0.0253	+/-0.00332	0.050	pCi/g		MXE1	03/25/10	1840	965495	3
Plutonium-239/240	U	0.0114	0.0214	+/-0.00472	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.947	0.113	+/-0.093	0.100	pCi/g		MXE1	03/27/10	1301	965496	4
Uranium-235/236		0.0744	0.0691	+/-0.0212	0.100	pCi/g						
Uranium-238		1.07	0.0796	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0144	0.296	+/-0.0951	0.200	pCi/g		MXR1	03/19/10	2041	961099	5
Bismuth-211	UI	4.69	0.291	+/-0.250		pCi/g						
Bismuth-214		1.32	0.0941	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	3.72	1.26	+/-0.566		pCi/g						
Cerium-139	U	0.0105	0.0469	+/-0.0134	0.050	pCi/g						
Cesium-134	U	0.0538	0.075	+/-0.0211	0.100	pCi/g						
Cesium-137		0.331	0.0489	+/-0.0388	0.100	pCi/g						
Cobalt-60	U	-0.00675	0.0527	+/-0.0165	0.100	pCi/g						
Europium-152	U	-0.0384	0.136	+/-0.0495	0.200	pCi/g						
Lanthanum-140	U	0.0153	0.172	+/-0.0512		pCi/g						
Lead-212		1.78	0.0849	+/-0.0828	0.100	pCi/g						
Lead-214		1.70	0.106	+/-0.102	0.100	pCi/g						
Mercury-203	U	0.0253	0.066	+/-0.022	0.100	pCi/g						
Potassium-40		28.5	0.420	+/-1.31	1.00	pCi/g						
Radium-223	U	0.101	0.961	+/-0.334		pCi/g						
Radium-224	UI	4.41	0.908	+/-0.469		pCi/g						
Radium-226		1.32	0.0941	+/-0.102		pCi/g						
Radium-228		1.88	0.199	+/-0.200	0.500	pCi/g						
Ruthenium-106	U	0.221	0.472	+/-0.138	0.800	pCi/g						

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

Report Date: March 30, 2010

Client Sample ID: RE36-10-8292
Sample ID: 248517001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	-0.0275	0.0647	+/-0.0208	0.080	pCi/g						
Strontium-85	UI	0.110	0.0684	+/-0.0201		pCi/g						
Thallium-208		0.544	0.0451	+/-0.0395	0.080	pCi/g						
Thorium-227	U	-0.0655	0.363	+/-0.111		pCi/g						
Thorium-231	U	0.101	0.961	+/-0.334		pCi/g						
Thorium-234		3.50	2.34	+/-1.32	2.00	pCi/g						
Tin-113	U	-0.0128	0.0654	+/-0.0196	0.100	pCi/g						
Uranium-235	U	-0.0863	0.319	+/-0.101	0.500	pCi/g						
Yttrium-88	U	0.0289	0.060	+/-0.0166	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	44.8	172	+/-49.9	250	pCi/L		GXR1	03/26/10	1159	964063	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	91.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	69.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-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.

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

Report Date: March 30, 2010

Client Sample ID: RE36-10-8292
Sample ID: 248517001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

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
JNX Non Calibrated Compound
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 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
UJ Compound cannot be extracted
UJ 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
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 30, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965494										
QC1202071662 248526001 DUP										
Americium-241	U	-0.00204	U	-0.00349	pCi/g	0.130		(0-1)	MXE1	03/26/1007:43
	TPU:	+/-0.002		+/-0.00358						
	Yield:	88.7		80.7						
QC1202071663 LCS										
Americium-241	33.1			28.1	pCi/g		84.6	(75%-125%)		03/26/1007:43
	TPU:			+/-2.07						
	Yield:			104						
QC1202071661 MB										
Americium-241			U	0.00482	pCi/g					03/26/1007:43
	TPU:			+/-0.00419						
	Yield:			87.8						
Batch 965495										
QC1202071665 248526001 DUP										
Plutonium-238	U	-0.00237	U	-0.00122	pCi/g	0.0737		(0-1)	MXE1	03/25/1020:23
	TPU:	+/-0.00498		+/-0.00281						
	Yield:	91.4		107						
Plutonium-239/240	U	0.0025	U	0.00633	pCi/g	0.277		(0-1)		
	TPU:	+/-0.00322		+/-0.0037						
	Yield:	91.4		107						
QC1202071666 LCS										
Plutonium-238				5.05	pCi/g			(75%-125%)		
	TPU:			+/-0.466						
	Yield:			81.5						
Plutonium-239/240	41.8			39.8	pCi/g		95.2	(75%-125%)		
	TPU:			+/-2.78						
	Yield:			81.5						
QC1202071664 MB										
Plutonium-238			U	0.00159	pCi/g					
	TPU:			+/-0.00723						
	Yield:			92.1						
Plutonium-239/240			U	0.00111	pCi/g					
	TPU:			+/-0.00347						
	Yield:			92.1						
Batch 965496										
QC1202071668 248526001 DUP										
Uranium-233/234		0.961		0.894	pCi/g	0.183		(0-1)	MXE1	03/29/1012:38
	TPU:	+/-0.0964		+/-0.0889						
	Yield:	76.3		79.9						
Uranium-235/236	U	0.0657		0.0709	pCi/g	0.0629		(0-1)		
	TPU:	+/-0.0196		+/-0.0221						
	Yield:	76.3		79.9						
Uranium-238		0.811		0.967	pCi/g	0.439		(0-1)		
	TPU:	+/-0.0844		+/-0.0945						

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965496										
	Yield:	76.3		79.9						
QC1202071669 LCS										
Uranium-233/234				7.26	pCi/g					03/29/1012:38
	TPU:			+/-0.696						
	Yield:			79.4						
Uranium-235/236				0.386	pCi/g					
	TPU:			+/-0.104						
	Yield:			79.4						
Uranium-238	5.75			6.01	pCi/g		105	(75%-125%)		
	TPU:			+/-0.593						
	Yield:			79.4						
QC1202071667 MB										
Uranium-233/234			U	0.00877	pCi/g					03/29/1012:38
	TPU:			+/-0.00477						
	Yield:			91.6						
Uranium-235/236			U	0.00892	pCi/g					
	TPU:			+/-0.00634						
	Yield:			91.6						
Uranium-238			U	0.0126	pCi/g					
	TPU:			+/-0.00549						
	Yield:			91.6						
Rad Gamma Spec										
Batch 961099										
QC1202061470 248526001 DUP										
Americium-241	U	-0.00644	U	0.080	pCi/g	0.375		(0-1)	MXR1	03/20/1011:11
	TPU:	+/-0.0263		+/-0.0889						
Bismuth-211	UI	4.71	UI	4.80	pCi/g	0.0716		(0-1)		
	TPU:	+/-0.338		+/-0.319						
Bismuth-214		1.62		1.51	pCi/g	0.217		(0-1)		
	TPU:	+/-0.128		+/-0.119						
Cadmium-109	UI	4.54	UI	3.91	pCi/g	0.307		(0-1)		
	TPU:	+/-0.446		+/-0.589						
Cerium-139	U	-0.00338	U	-0.0115	pCi/g	0.134		(0-1)		
	TPU:	+/-0.0128		+/-0.0174						
Cesium-134	U	0.0524	U	0.0861	pCi/g	0.293		(0-1)		
	TPU:	+/-0.0265		+/-0.0311						
Cesium-137	U	-0.0439	U	-0.00867	pCi/g	0.402		(0-1)		
	TPU:	+/-0.0228		+/-0.0211						
Cobalt-60	U	-0.0164	U	0.0145	pCi/g	0.350		(0-1)		
	TPU:	+/-0.0238		+/-0.0204						
Europium-152	U	-0.00356	U	-0.0998	pCi/g	0.450		(0-1)		
	TPU:	+/-0.0522		+/-0.0547						
Lanthanum-140	U	-0.182	U	-0.0839	pCi/g	0.331		(0-1)		
	TPU:	+/-0.0751		+/-0.0737						
Lead-212		2.15		1.98	pCi/g	0.339		(0-1)		
	TPU:	+/-0.136		+/-0.113						
Lead-214		1.71		1.74	pCi/g	0.0663		(0-1)		
	TPU:	+/-0.131		+/-0.125						
Mercury-203	U	0.0483	U	0.0801	pCi/g	0.342		(0-1)		
	TPU:	+/-0.0208		+/-0.0256						

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 961099										
Potassium-40		35.8		36.5	pCi/g	0.103		(0-1)		
	TPU:	+/-1.80		+/-1.93						
Radium-223	U	0.234	U	0.108	pCi/g	0.0868		(0-1)		
	TPU:	+/-0.327		+/-0.398						
Radium-224	UI	4.76	UI	4.84	pCi/g	0.0269		(0-1)		
	TPU:	+/-0.738		+/-0.710						
Radium-226		1.62		1.51	pCi/g	0.217		(0-1)		
	TPU:	+/-0.128		+/-0.119						
Radium-228		2.39		2.44	pCi/g	0.0581		(0-1)		
	TPU:	+/-0.221		+/-0.236						
Ruthenium-106	U	-0.0471	U	-0.0339	pCi/g	0.0196		(0-1)		
	TPU:	+/-0.168		+/-0.168						
Sodium-22	U	-0.0177	U	0.0147	pCi/g	0.301		(0-1)		
	TPU:	+/-0.0261		+/-0.0277						
Strontium-85	U	0.0446	U	0.0777	pCi/g	0.364		(0-1)		
	TPU:	+/-0.0219		+/-0.0235						
Thallium-208		0.652		0.759	pCi/g	0.492		(0-1)		
	TPU:	+/-0.0553		+/-0.054						
Thorium-227	U	-0.0699	U	-0.08	pCi/g	0.0207		(0-1)		
	TPU:	+/-0.121		+/-0.123						
Thorium-231	U	0.234	U	0.108	pCi/g	0.0868		(0-1)		
	TPU:	+/-0.327		+/-0.398						
Thorium-234		1.54	U	1.87	pCi/g	0.111		(0-1)		
	TPU:	+/-0.472		+/-1.02						
Tin-113	U	-0.0436	U	-0.0519	pCi/g	0.0827		(0-1)		
	TPU:	+/-0.0236		+/-0.0263						
Uranium-235	U	-0.0248	U	-0.0231	pCi/g	0.00437		(0-1)		
	TPU:	+/-0.0835		+/-0.112						
Yttrium-88	U	0.00749	U	0.00535	pCi/g	0.0266		(0-1)		
	TPU:	+/-0.019		+/-0.0212						
QC1202061471 LCS										
Americium-241	15.9			13.8	pCi/g		86.6	(75%-125%)		03/20/1011:12
	TPU:			+/-0.614						
Bismuth-211				2.43	pCi/g					
	TPU:			+/-0.340						
Bismuth-214				0.883	pCi/g					
	TPU:			+/-0.131						
Cadmium-109				32.1	pCi/g					
	TPU:			+/-1.94						
Cerium-139			U	0.00887	pCi/g					
	TPU:			+/-0.0219						
Cesium-134			U	0.020	pCi/g					
	TPU:			+/-0.0427						
Cesium-137	5.55			6.17	pCi/g		111	(75%-125%)		
	TPU:			+/-0.338						
Cobalt-60	6.34			6.11	pCi/g		96.3	(75%-125%)		
	TPU:			+/-0.298						
Europium-152			U	-0.019	pCi/g					
	TPU:			+/-0.082						
Lanthanum-140			U	-0.0158	pCi/g					
	TPU:			+/-0.0517						

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 961099										
Lead-212				0.973	pCi/g					
	TPU:			+/-0.0979						
Lead-214				0.880	pCi/g					
	TPU:			+/-0.126						
Mercury-203			U	0.060	pCi/g					
	TPU:			+/-0.0305						
Potassium-40				1.16	pCi/g					
	TPU:			+/-0.435						
Radium-223			U	-0.896	pCi/g					
	TPU:			+/-0.532						
Radium-224				4.19	pCi/g					
	TPU:			+/-0.658						
Radium-226				0.883	pCi/g					
	TPU:			+/-0.131						
Radium-228				1.11	pCi/g					
	TPU:			+/-0.275						
Ruthenium-106			U	-0.214	pCi/g					
	TPU:			+/-0.292						
Sodium-22			U	-0.0399	pCi/g					
	TPU:			+/-0.0235						
Strontium-85			U	-0.124	pCi/g					
	TPU:			+/-0.0375						
Thallium-208				0.285	pCi/g					
	TPU:			+/-0.0627						
Thorium-227			U	0.0133	pCi/g					
	TPU:			+/-0.198						
Thorium-231			U	-0.896	pCi/g					
	TPU:			+/-0.532						
Thorium-234			U	-0.305	pCi/g					
	TPU:			+/-0.828						
Tin-113			U	0.00634	pCi/g					
	TPU:			+/-0.0389						
Uranium-235			U	-0.0673	pCi/g					
	TPU:			+/-0.138						
Yttrium-88			U	0.0048	pCi/g					
	TPU:			+/-0.0217						
QC1202061469 MB										
Americium-241			U	0.048	pCi/g					03/20/1011:11
	TPU:			+/-0.0212						
Bismuth-211			U	0.0233	pCi/g					
	TPU:			+/-0.054						
Bismuth-214			U	-0.0477	pCi/g					
	TPU:			+/-0.0209						
Cadmium-109			U	-0.0863	pCi/g					
	TPU:			+/-0.136						
Cerium-139			U	-0.00579	pCi/g					
	TPU:			+/-0.00587						
Cesium-134			U	-0.0142	pCi/g					
	TPU:			+/-0.0118						
Cesium-137			U	-0.00681	pCi/g					
	TPU:			+/-0.0079						

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 961099										
Cobalt-60			U	0.00131	pCi/g					
	TPU:			+/-0.00767						
Europium-152			U	-0.0292	pCi/g					
	TPU:			+/-0.0225						
Lanthanum-140			U	0.0068	pCi/g					
	TPU:			+/-0.0231						
Lead-212			U	-0.000334	pCi/g					
	TPU:			+/-0.0153						
Lead-214			U	-0.0229	pCi/g					
	TPU:			+/-0.0205						
Mercury-203			U	-0.00236	pCi/g					
	TPU:			+/-0.00856						
Potassium-40			U	-0.0225	pCi/g					
	TPU:			+/-0.112						
Radium-223			U	-0.183	pCi/g					
	TPU:			+/-0.148						
Radium-224			U	-0.224	pCi/g					
	TPU:			+/-0.144						
Radium-226			U	-0.0477	pCi/g					
	TPU:			+/-0.0209						
Radium-228			U	0.00942	pCi/g					
	TPU:			+/-0.041						
Ruthenium-106			U	-0.0482	pCi/g					
	TPU:			+/-0.0765						
Sodium-22			U	0.00931	pCi/g					
	TPU:			+/-0.00935						
Strontium-85			U	-0.0752	pCi/g					
	TPU:			+/-0.0149						
Thallium-208			U	-0.00993	pCi/g					
	TPU:			+/-0.00804						
Thorium-227			U	0.00145	pCi/g					
	TPU:			+/-0.0522						
Thorium-231			U	-0.183	pCi/g					
	TPU:			+/-0.148						
Thorium-234			U	-0.117	pCi/g					
	TPU:			+/-0.226						
Tin-113			U	-0.00224	pCi/g					
	TPU:			+/-0.0107						
Uranium-235			U	-0.0814	pCi/g					
	TPU:			+/-0.0463						
Yttrium-88			U	0.0111	pCi/g					
	TPU:			+/-0.00903						
Rad Liquid Scintillation										
Batch 964063										
QC1202068229 248526001 DUP										
Tritium	U	-96.8	U	-50.9	pCi/L	0.262		(0-1)	GXR1	03/26/1012:00
	TPU:	+/-42.6		+/-45.2						
QC1202068230 LCS										
Tritium	5520			6300	pCi/L		114	(80%-120%)		03/26/1012:00
	TPU:			+/-557						

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 964063										
QC1202068228 MB										
Tritium			U	-77	pCi/L					03/26/1012:00
	TPU:			+/-43.2						

Notes:
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
JNX	Non Calibrated Compound
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 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
UJ	Compound cannot be extracted
UJ	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

QC Summary

Workorder: 248517

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence 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.
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.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965494 Product: Am Date: 3/29/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/29/10

Secondary Review Performed By: [illegible] 3/31/10

3/31

PV

Am/Cm Que Sheet

15-MAR-10

Batch #: 965494 Analyst: MXE1 First Client Due Date: 31-MAR-10 Internal Due Date20-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 44596-2-VV Expiration Date: 3/9/11 Vol: 0.1 NA NA

LCS Isotope(s): Am241/Cm244 LCS Code(s): / NA / / NA Expiration Date: / NA / / NA Vol(s): / / /

Spike Isotope(s): Am241/Cm244 Spike Code(s): / / / Expiration Date: / / / Vol(s): / / /

Prep Date: 3/22/10 Initials: MAE Pipet ID: 2971058 Balance ID: 50410272 Witness: JEH 3-22-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	Am/Cm Det #
248515001-1	RE36-10-7501	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	1	1	1.252	241
~~248515002-1~~	~~RE36-10-7524~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~25-FEB-10~~	~~2~~	~~2~~	~~1.257~~	~~242~~
248515003-1	RE36-10-7525	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	3	3	1.259	243
248517001-1	RE36-10-8292	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	4	4	1.256	244
248521001-1	RE36-10-8288	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	5	5	1.250	245
248521002-1	RE36-10-8279	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	6	6	1.251	246
248521003-1	RE36-10-8277	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	7	7	1.258	247
248521004-1	RE36-10-8280	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	8	8	1.259	248
248521005-1	RE36-10-8278	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	9	9	1.256	249
248521006-1	RE36-10-8274	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	10	10	1.258	250
248521007-1	RE36-10-8291	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	11	11	1.256	251
248521008-1	RE36-10-8287	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	12	12	1.253	252
248521009-1	RE36-10-8273	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	13	13	1.252	253
248521010-1	RE36-10-8275	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	14	14	1.256	254
~~248521011-1~~	~~RE36-10-8276~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~25-FEB-10~~	~~15~~	~~15~~	~~1.251~~	~~255~~
248526001-1	RE36-10-8466	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	16	16	1.250	256
1202071661-1	MB for batch 965494	MB		.05 pCi/g	SOIL	QC ACCOUNT		17	17	1.00	217
1202071662-1	RE36-10-8466(248526001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	25-FEB-10	18	18	1.256	218
1202071663-1	LCS for batch 965494	LCS		.05 pCi/g	SOIL	QC ACCOUNT		19	19	0.107	219

* SRM 0244-B EXP: 04/30/20

Choose SOP Used: GL-RAD-A-011 ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 3/29/10

Blank Correction Report

Batch ID 965494

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071662	DUP	Americium-241	1.26 g	-0.00349	0.00358	0.023	.003825397	pCi/g	YES
1202071663	LCS	Americium-241	0.107 g	28.1	2.07	0.203	.045046729	pCi/g	NO
1202071661	MB	Americium-241	1.00 g	0.00482	0.00419	0.0272	.00482	pCi/g	YES
248515001	RE36-10-7501	Americium-241	1.25 g	-0.000148	0.00289	0.0222	.003856	pCi/g	YES
248515003	RE36-10-7525	Americium-241	1.26 g	0.00922	0.00379	0.0223	.003825397	pCi/g	YES
248517001	RE36-10-8292	Americium-241	1.26 g	-3.90E-05	0.00138	0.0202	.003825397	pCi/g	YES
248521001	RE36-10-8288	Americium-241	1.25 g	0.000477	0.00186	0.0218	.003856	pCi/g	YES
248521002	RE36-10-8279	Americium-241	1.25 g	0.00362	0.00248	0.0246	.003856	pCi/g	YES
248521003	RE36-10-8277	Americium-241	1.26 g	0.013	0.00563	0.0238	.003825397	pCi/g	YES
248521004	RE36-10-8280	Americium-241	1.26 g	0.0152	0.00556	0.023	.003825397	pCi/g	YES
248521005	RE36-10-8278	Americium-241	1.26 g	0.00182	0.00172	0.0237	.003825397	pCi/g	YES
248521006	RE36-10-8274	Americium-241	1.26 g	0.00307	0.00256	0.0201	.003825397	pCi/g	YES
248521007	RE36-10-8291	Americium-241	1.26 g	0.0341	0.00759	0.0214	.003825397	pCi/g	NO
248521008	RE36-10-8287	Americium-241	1.25 g	0.0162	0.00498	0.0215	.003856	pCi/g	YES
248521009	RE36-10-8273	Americium-241	1.25 g	0.0202	0.00799	0.023	.003856	pCi/g	NO
248521010	RE36-10-8275	Americium-241	1.26 g	0.0106	0.00429	0.0212	.003825397	pCi/g	YES
248526001	RE36-10-8466	Americium-241	1.25 g	-0.00204	0.002	0.0205	.003856	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965494	CHAMBER : 244	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248517001_AM	DETECTOR S/N : 79437	BKG FILE : B244.CNF;91
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 39.5742	BKG DATE : 21-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 25-MAR-2010 22:12:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W244.CNF;30
% YIELD : 91.361		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.0788E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

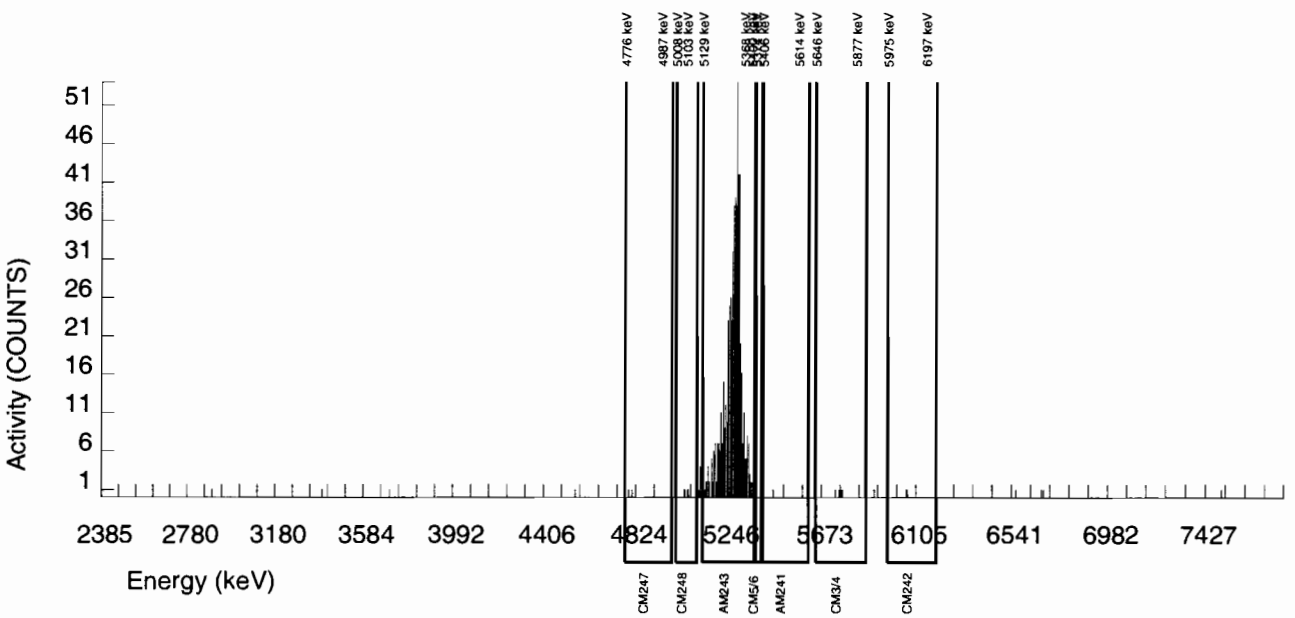
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5458.895	4.906	1.000	-0.028	0.000	2.7707	99.94000	-3.90E-05	1.38E-03	8.24E-03	2.02E-02	1.38E-03
AM243	5270.000	5274.312	35.481	591.000	591.000	0.000	0.0000	99.78000	8.16E-01	6.32E-02	0.00E+00	3.74E-03	3.36E-02
CM-242	6102.000	6069.382	9.199	2.000	2.000	0.000	4.0092	100.0000	3.12E-03	2.22E-03	1.19E-02	2.76E-02	2.21E-03
CM-3/4	5795.020	5761.637	34.344	4.000	1.840	2.160	4.8510	100.0000	2.54E-03	3.26E-03	1.44E-02	3.26E-02	3.26E-03
CM-5/6	5386.000	5378.905	0.000	3.000	3.000	0.000	6.1294	86.09000	4.80E-03	2.79E-03	2.12E-02	4.67E-02	2.77E-03
CM-247	4946.000	4813.005	34.344	3.000	3.000	0.000	6.3427	79.30000	5.21E-03	3.03E-03	2.38E-02	5.23E-02	3.01E-03
CM-248	5078.600	5069.021	0.000	5.000	4.280	0.720	11.0244	91.00000	6.48E-03	3.58E-03	3.60E-02	7.61E-02	3.56E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965494	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248526001_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;93
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 40.3572	BKG DATE : 21-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 25-MAR-2010 22:13:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;30
% YIELD : 88.654		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.0172E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

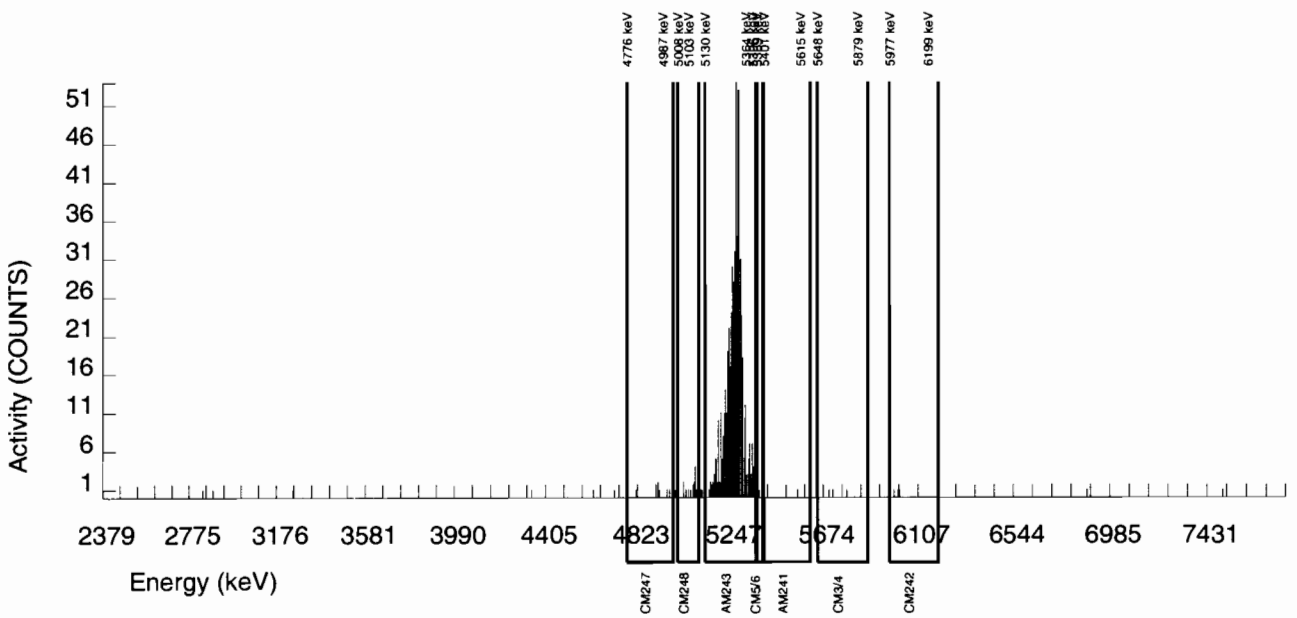
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5561.735	4.920	1.000	-1.458	1.440	2.7707	99.94000	-2.04E-03	2.00E-03	8.37E-03	2.05E-02	2.00E-03
AM243	5270.000	5270.920	39.706	587.000	584.840	2.160	1.4697	99.78000	8.20E-01	6.38E-02	4.45E-03	1.27E-02	3.40E-02
CM-242	6102.000	6010.547	44.284	4.000	4.000	0.000	4.0092	100.0000	6.33E-03	3.19E-03	1.21E-02	2.80E-02	3.17E-03
CM-3/4	5795.020	5744.438	186.976	5.000	3.560	1.440	4.8510	100.0000	5.00E-03	3.46E-03	1.46E-02	3.31E-02	3.45E-03
CM-5/6	5386.000	5374.518	0.000	4.000	4.000	0.000	6.1294	86.09000	6.50E-03	3.28E-03	2.15E-02	4.74E-02	3.25E-03
CM-247	4946.000	4921.968	7.227	7.000	6.280	0.720	6.3427	79.30000	1.11E-02	4.89E-03	2.41E-02	5.31E-02	4.84E-03
CM-248	5078.600	5063.542	8.149	16.000	16.000	0.000	11.0244	91.00000	2.46E-02	6.36E-03	3.66E-02	7.73E-02	6.15E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965494	CHAMBER : 217	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202071661_AM	DETECTOR S/N : 79410	BKG FILE : B217.CNF;93
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 38.4865	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 07:43:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W217.CNF;32
% YIELD : 87.788		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.9975E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

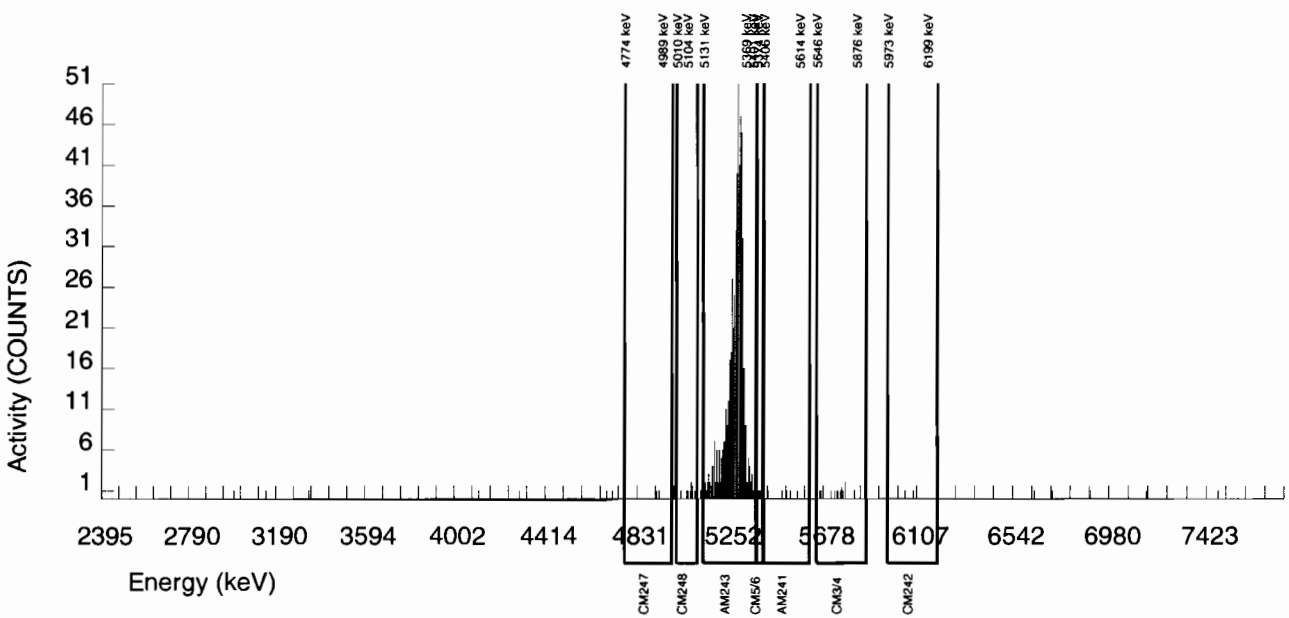
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.126	127.716	5.000	2.599	1.440	2.7707	99.94000	4.82E-03	4.19E-03	1.11E-02	2.72E-02	4.17E-03
AM243	5270.000	5282.072	47.021	553.000	552.280	0.720	0.8485	99.78000	1.02E+00	8.10E-02	3.40E-03	1.18E-02	4.37E-02
CM-242	6102.000	6060.723	68.770	3.000	3.000	0.000	4.0092	100.0000	5.66E-03	3.29E-03	1.60E-02	3.71E-02	3.27E-03
CM-3/4	5795.020	5748.223	4.912	11.000	10.280	0.720	4.8510	100.0000	1.90E-02	6.41E-03	1.94E-02	4.38E-02	6.29E-03
CM-5/6	5386.000	5382.455	0.000	7.000	6.280	0.720	6.1294	86.09000	1.35E-02	5.97E-03	2.84E-02	6.27E-02	5.90E-03
CM-247	4946.000	4887.873	4.912	6.000	5.280	0.720	6.3427	79.30000	1.23E-02	6.02E-03	3.20E-02	7.02E-02	5.96E-03
CM-248	5078.600	5074.700	9.824	8.000	8.000	0.000	11.0244	91.00000	1.63E-02	5.86E-03	4.84E-02	1.02E-01	5.76E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965494	CHAMBER : 218	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202071662_AM	DETECTOR S/N : 79411	BKG FILE : B218.CNF;91
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 39.3974	BKG DATE : 21-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 26-MAR-2010 07:43:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W218.CNF;30
% YIELD : 80.696		CAL DATE : 28-FEB-2010
TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 1.8361E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

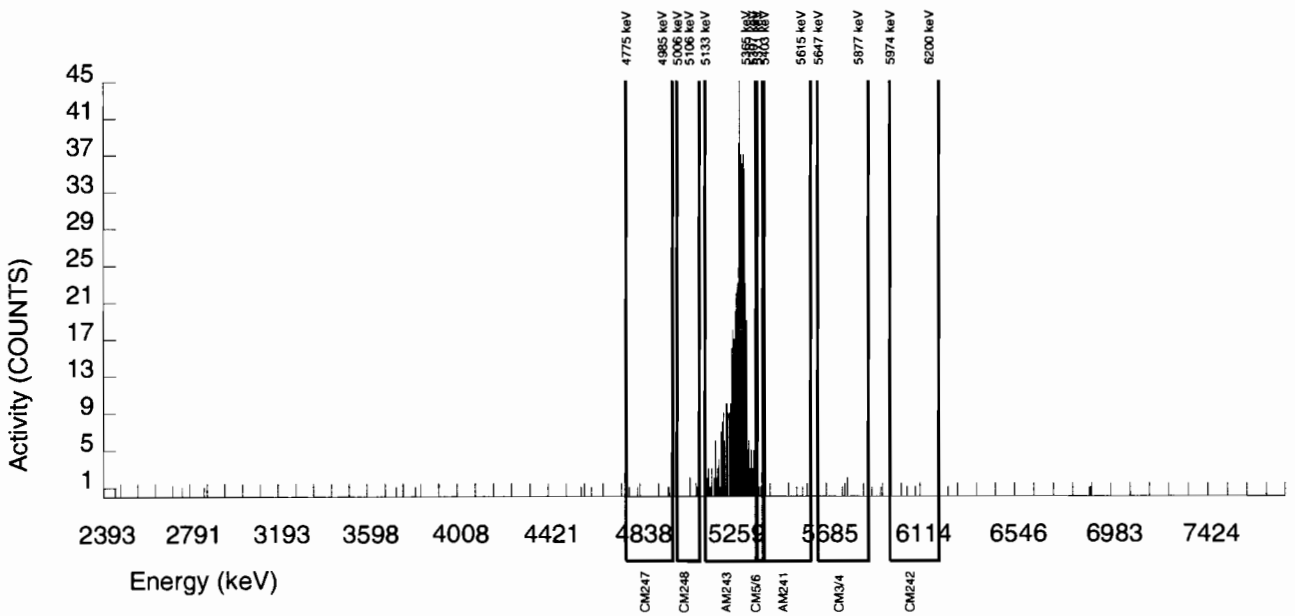
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5515.834	168.164	3.000	-2.224	4.320	2.7707	99.94000	-3.49E-03	3.58E-03	9.37E-03	2.30E-02	3.58E-03
AM243	5270.000	5283.286	37.687	524.000	519.680	4.320	2.0785	99.78000	8.16E-01	6.59E-02	7.04E-03	1.83E-02	3.61E-02
CM-242	6102.000	6078.564	39.568	2.000	2.000	0.000	4.0092	100.0000	3.55E-03	2.52E-03	1.36E-02	3.13E-02	2.51E-03
CM-3/4	5795.020	5778.966	4.946	3.000	1.560	1.440	4.8510	100.0000	2.45E-03	3.16E-03	1.64E-02	3.70E-02	3.16E-03
CM-5/6	5386.000	5379.361	0.000	11.000	11.000	0.000	6.1294	86.09000	2.00E-02	6.19E-03	2.41E-02	5.31E-02	6.04E-03
CM-247	4946.000	4893.361	173.110	4.000	1.840	2.160	6.3427	79.30000	3.64E-03	4.66E-03	2.70E-02	5.94E-02	4.66E-03
CM-248	5078.600	5088.432	4.946	5.000	5.000	0.000	11.0244	91.00000	8.61E-03	3.89E-03	4.09E-02	8.66E-02	3.85E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965494	CHAMBER : 219	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202071663_AM	DETECTOR S/N : 79412	BKG FILE : B219.CNF;91
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 40.6279	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 07:43:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W219.CNF;30
% YIELD : 104.049		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 2.3674E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

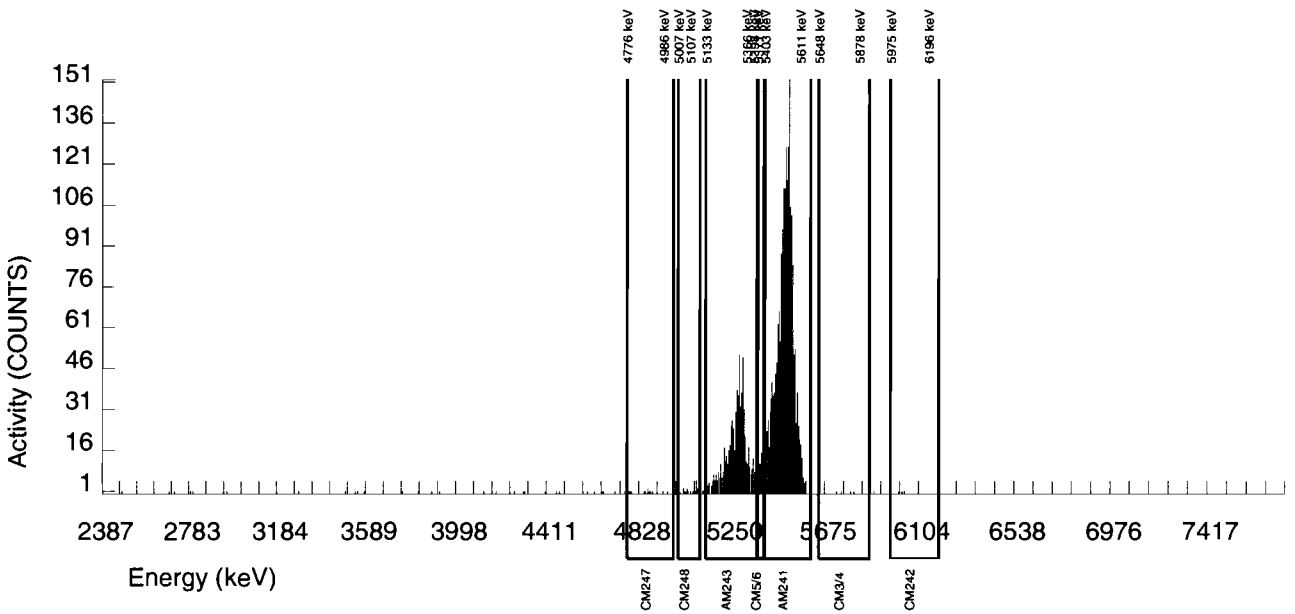
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5499.138	52.248	2028.000	2026.798	0.000	2.7707	99.94000	2.81E+01	2.07E+00	8.27E-02	2.03E-01	6.23E-01
AM243	5270.000	5277.317	55.655	691.000	691.000	0.000	0.0000	99.78000	9.58E+00	7.67E-01	0.00E+00	3.76E-02	3.64E-01
CM-242	6102.000	6032.537	29.598	3.000	2.280	0.720	4.0092	100.0000	3.22E-02	2.66E-02	1.20E-01	2.77E-01	2.65E-02
CM-3/4	5795.020	5775.234	78.928	4.000	4.000	0.000	4.8510	100.0000	5.54E-02	2.79E-02	1.45E-01	3.27E-01	2.77E-02
CM-5/6	5386.000	5385.860	0.000	73.000	73.000	0.000	6.1294	86.09000	1.17E+00	1.60E-01	2.12E-01	4.68E-01	1.37E-01
CM-247	4946.000	4847.984	93.726	16.000	16.000	0.000	6.3427	79.30000	2.79E-01	7.25E-02	2.39E-01	5.25E-01	6.98E-02
CM-248	5078.600	5067.183	7.168	22.000	22.000	0.000	11.0244	91.00000	3.34E-01	7.51E-02	3.62E-01	7.64E-01	7.13E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241



Radiochemistry Batch Checklist, Rev10

Batch# 465495 Product: Pu Date: 3/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are accarent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
CC data entered into CC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JapLMT 3/26/10

Secondary Review Performed By: [illegible] 3/26/10

3/31

PJ

Plutonium Que Sheet

15-MAR-10

Batch #: 965495 Pu-236 Analyst: MXE1 First Client Due Date:31-MAR-10 Internal Due Date:20-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ Tracer Code: 1430-C Expiration Date: 3/4/10 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: / Expiration Date: / Vol: /

Spike Isotope(s): Pu-239/Pu-238 Spike Code: / Expiration Date: / Vol: /

Prep Date: 3/22/10 Initials: mae Pipet ID: 29710058 Balance ID: 50410272 Witness: JEH 3-22-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l / l)	Pu Det #
248515001-1	RE36-10-7501	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	1	1	1.252	75
248515002-1	RE36-10-7524	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	2	2	1.257	76
248515003-1	RE36-10-7525	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	3	3	1.259	31
248517001-1	RE36-10-8292	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	4	4	1.256	33
248521001-1	RE36-10-8288	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	5	5	1.250	35
248521002-1	RE36-10-8279	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	6	6	1.251	36
248521003-1	RE36-10-8277	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	7	7	1.258	13
248521004-1	RE36-10-8280	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	8	8	1.259	14
248521005-1	RE36-10-8278	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	9	9	1.256	16
248521006-1	RE36-10-8274	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	10	10	1.258	17
248521007-1	RE36-10-8291	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	11	11	1.256	18
248521008-1	RE36-10-8287	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	12	12	1.253	19
248521009-1	RE36-10-8273	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	13	13	1.252	20
248521010-1	RE36-10-8275	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	14	14	1.256	22
248521011-1	RE36-10-8276	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	15	15	1.251	23
248526001-1	RE36-10-8466	SAMPLE		.05 pCi/g	SOIL	LANL010	25-FEB-10	16	16	1.250	24
1202071664-1	MB for batch 965495	MB		.05 pCi/g	SOIL	QC ACCOUNT		17	17	1	25
1202071665-1	RE36-10-8466(248526001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	25-FEB-10	18	18	1.256	26
1202071666-1	LCS for batch 965495	LCS		.05 pCi/g	SOIL	QC ACCOUNT		19	19	0.107	27

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, ~~GL-RAD-A-045~~, GL-RAD-A-043

Solid Sample Dissolution by: ~~LEACH~~ or DIGESTION
Circle One

Data Reviewed By: [signature] 3/26/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 965495

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071665	DUP	Plutonium-238	1.26 g	-0.00122	0.00281	0.0184	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00633	0.0037	0.0156	.000880952	pCi/g	NO
1202071666	LCS	Plutonium-238	0.107 g	5.05	0.466	0.279	.014859813	pCi/g	NO
		Plutonium-239/240	0.107 g	39.8	2.78	0.235	.010373832	pCi/g	NO
1202071664	MB	Plutonium-238	1.00 g	0.00159	0.00723	0.0264	.00159	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00111	0.00347	0.0223	.00111	pCi/g	YES
248515001	RE36-10-7501	Plutonium-238	1.25 g	0.00574	0.00373	0.0232	.001272	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00455	0.00332	0.0196	.000888	pCi/g	YES
248515002	RE36-10-7524	Plutonium-238	1.26 g	0.00521	0.0043	0.0303	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0453	0.0114	0.0256	.000880952	pCi/g	NO
248515003	RE36-10-7525	Plutonium-238	1.26 g	0.00499	0.00438	0.0259	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0222	0.00828	0.0219	.000880952	pCi/g	NO
248517001	RE36-10-8292	Plutonium-238	1.26 g	0.00572	0.00332	0.0253	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0114	0.00472	0.0214	.000880952	pCi/g	NO
248521001	RE36-10-8288	Plutonium-238	1.25 g	0.00896	0.00495	0.0278	.001272	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00435	0.00829	0.0235	.000888	pCi/g	YES
248521002	RE36-10-8279	Plutonium-238	1.25 g	0.00168	0.00428	0.0266	.001272	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0397	0.010	0.0225	.000888	pCi/g	NO
248521003	RE36-10-8277	Plutonium-238	1.26 g	0.00168	0.00544	0.0233	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0492	0.0105	0.0197	.000880952	pCi/g	NO
248521004	RE36-10-8280	Plutonium-238	1.26 g	0.0049	0.0112	0.0266	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0275	0.00937	0.0225	.000880952	pCi/g	NO
248521005	RE36-10-8278	Plutonium-238	1.26 g	0.0181	0.00627	0.0227	.001261905	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00123	0.00211	0.0192	.000880952	pCi/g	YES
248521006	RE36-10-8274	Plutonium-238	1.26 g	-0.00216	0.00574	0.0276	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0193	0.00683	0.0233	.000880952	pCi/g	NO
248521007	RE36-10-8291	Plutonium-238	1.26 g	0.00447	0.00787	0.0251	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0782	0.0132	0.0212	.000880952	pCi/g	NO
248521008	RE36-10-8287	Plutonium-238	1.25 g	0.00686	0.00872	0.0271	.001272	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0388	0.0092	0.0229	.000888	pCi/g	NO
248521009	RE36-10-8273	Plutonium-238	1.25 g	0.0142	0.00738	0.0228	.001272	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0762	0.0124	0.0193	.000888	pCi/g	NO
248521010	RE36-10-8275	Plutonium-238	1.26 g	-0.000778	0.00961	0.0258	.001261905	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0366	0.0095	0.0218	.000880952	pCi/g	NO
248521011	RE36-10-8276	Plutonium-238	1.25 g	0.026	0.00833	0.0239	.001272	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00281	0.00363	0.0202	.000888	pCi/g	YES
248526001	RE36-10-8466	Plutonium-238	1.25 g	-0.00237	0.00498	0.0213	.001272	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0025	0.00322	0.018	.000888	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965495	CHAMBER : 033	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248517001_PU	DETECTOR S/N : 78785	BKG FILE : B033.CNF;1120
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 31.7007	BKG DATE : 21-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 25-MAR-2010 18:40:50	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W033.CNF;332
% YIELD : 82.531		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0160E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4891E+00 dpm		

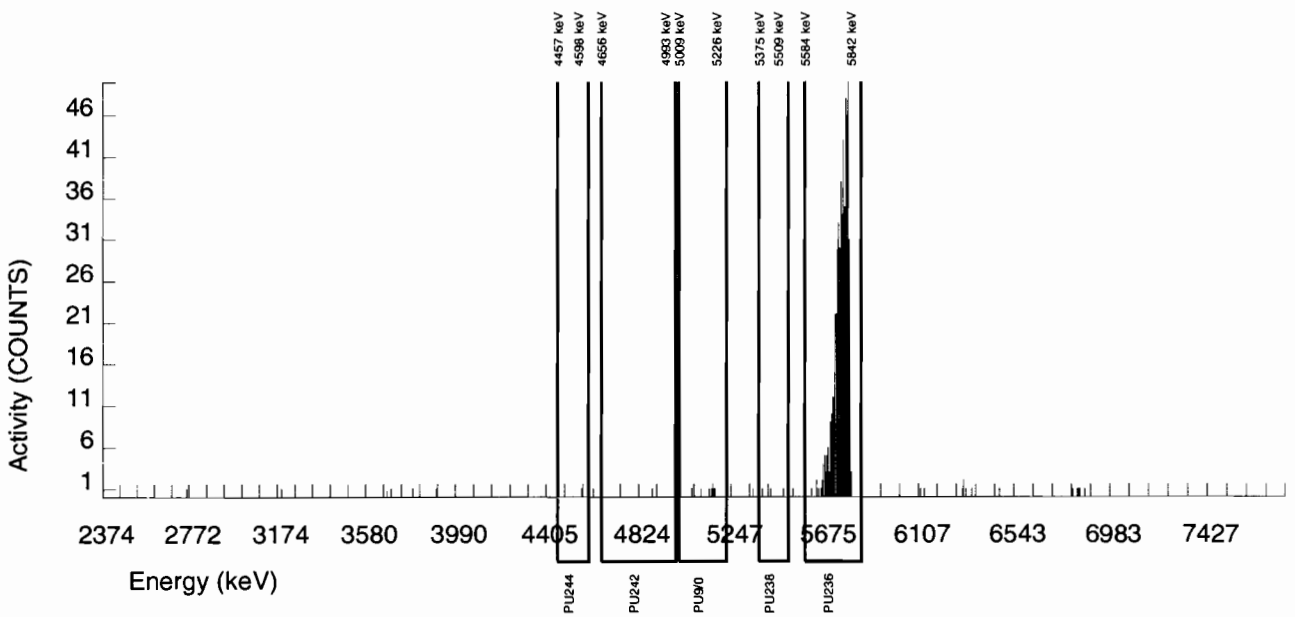
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5756.812	54.439	558.000	557.280	0.720	0.8485	100.0000	1.08E+00	7.91E-02	3.49E-03	1.21E-02	4.59E-02
PU-238	5499.000	5440.933	93.943	3.000	3.000	0.000	2.4495	99.90000	5.72E-03	3.32E-03	1.01E-02	2.53E-02	3.30E-03
PU-9/0	5155.000	5141.978	103.832	6.000	6.000	0.000	1.9732	99.90000	1.14E-02	4.72E-03	8.11E-03	2.14E-02	4.67E-03
PU242	4890.000	4892.546	4.944	1.000	0.280	0.720	*******	100.0000	5.33E-04	2.35E-03	5.12E-01	1.03E+00	2.35E-03
PU-244	4589.000	4572.151	4.944	1.000	0.280	0.720	6.4609	99.90000	5.34E-04	2.35E-03	2.66E-02	5.83E-02	2.35E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965495	CHAMBER : 024	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248526001_PU	DETECTOR S/N : 76542	BKG FILE : B024.CNF;1112
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 34.2324	BKG DATE : 21-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 25-MAR-2010 20:23:06	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W024.CNF;303
% YIELD : 91.407		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0160E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7568E+00 dpm		

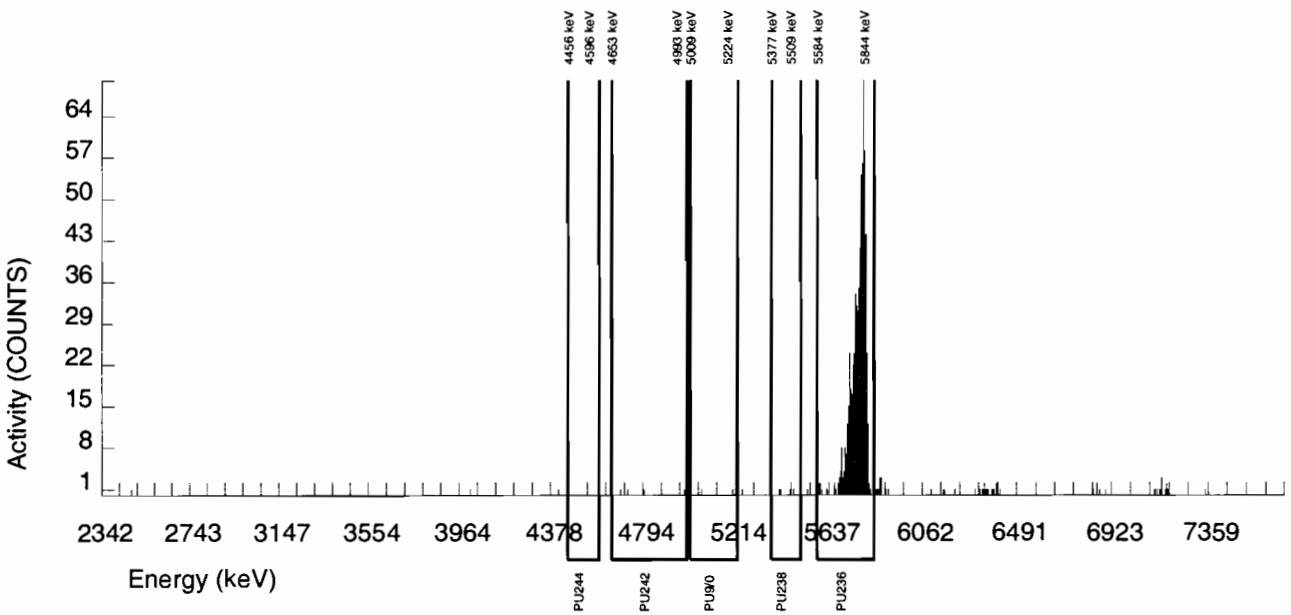
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5775.805	32.186	678.000	666.480	11.520	3.3941	100.0000	1.09E+00	7.55E-02	1.17E-02	2.78E-02	4.27E-02
PU-238	5499.000	5453.342	64.265	5.000	-1.480	6.480	2.4495	99.90000	-2.37E-03	4.98E-03	8.46E-03	2.13E-02	4.98E-03
PU-9/0	5155.000	5096.377	189.676	3.000	1.560	1.440	1.9732	99.90000	2.50E-03	3.22E-03	6.82E-03	1.80E-02	3.22E-03
PU242	4890.000	4757.658	318.830	6.000	3.840	2.160	*******	100.0000	6.14E-03	4.41E-03	4.30E-01	8.65E-01	4.40E-03
PU-244	4589.000	4525.752	0.000	0.000	-1.440	1.440	6.4609	99.90000	-2.31E-03	2.29E-03	2.23E-02	4.90E-02	2.29E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965495	CHAMBER : 025	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071664_PU	DETECTOR S/N : 45-149AA5	BKG FILE : B025.CNF;1123
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 34.1770	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 25-MAR-2010 20:23:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W025.CNF;330
% YIELD : 92.083		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9663E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7315E+00 dpm		

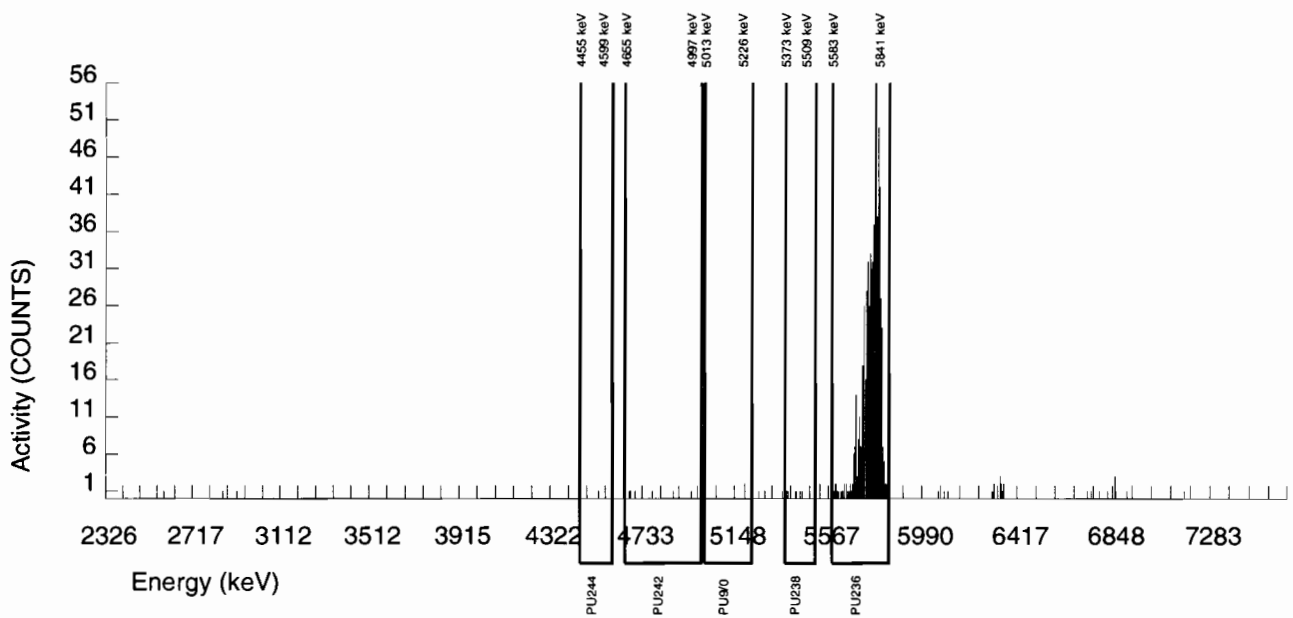
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5766.323	56.215	684.000	670.320	13.680	3.6986	100.0000	1.34E+00	9.29E-02	1.59E-02	3.71E-02	5.25E-02
PU-238	5499.000	5425.698	107.009	8.000	0.800	7.200	2.4495	99.90000	1.59E-03	7.23E-03	1.05E-02	2.64E-02	7.23E-03
PU-9/0	5155.000	5200.045	4.864	2.000	0.560	1.440	1.9732	99.90000	1.11E-03	3.47E-03	8.47E-03	2.23E-02	3.47E-03
PU242	4890.000	4782.784	266.914	6.000	5.280	0.720	*******	100.0000	1.05E-02	5.11E-03	5.35E-01	1.07E+00	5.08E-03
PU-244	4589.000	4542.234	4.864	1.000	1.000	0.000	6.4609	99.90000	1.99E-03	1.99E-03	2.77E-02	6.09E-02	1.99E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965495	CHAMBER : 026	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071665_PU	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1124
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 33.6708	BKG DATE : 21-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 25-MAR-2010 20:23:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W026.CNF;304
% YIELD : 106.608		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0160E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2153E+00 dpm		

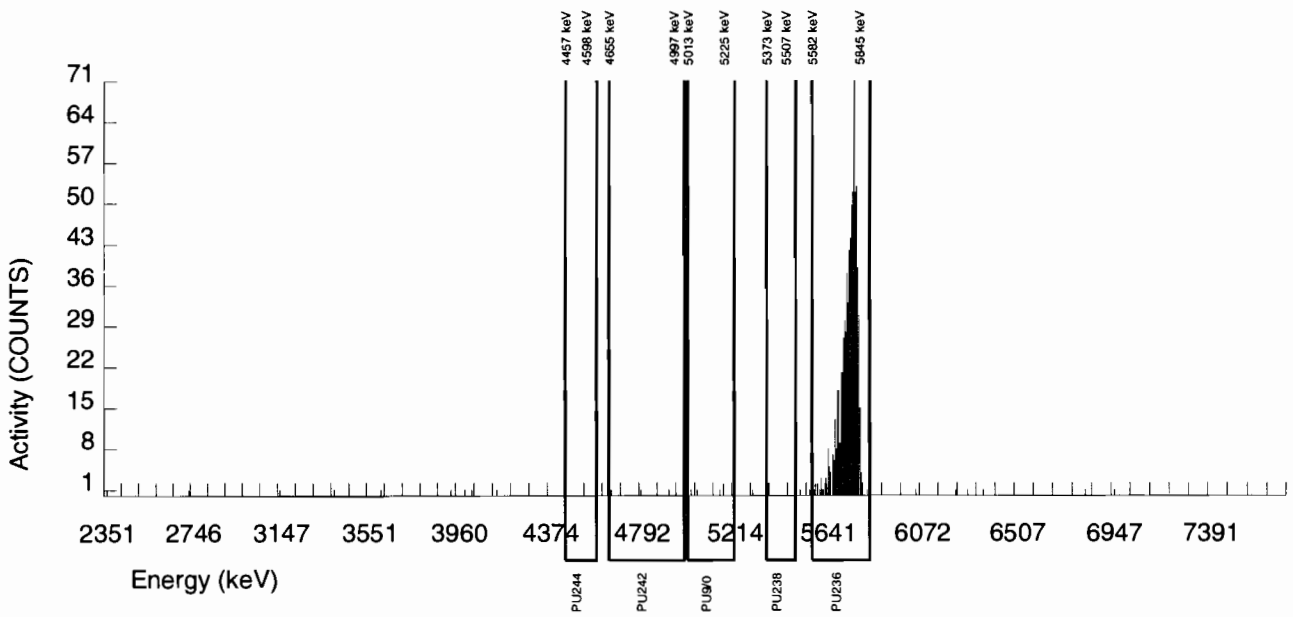
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5755.764	47.667	766.000	764.560	1.440	1.2000	100.0000	1.08E+00	7.15E-02	3.59E-03	1.09E-02	3.92E-02
PU-238	5499.000	5442.778	0.000	2.000	-0.880	2.880	2.4495	99.90000	-1.22E-03	2.81E-03	7.34E-03	1.84E-02	2.81E-03
PU-9/0	5155.000	5107.159	4.920	6.000	4.560	1.440	1.9732	99.90000	6.33E-03	3.70E-03	5.91E-03	1.56E-02	3.68E-03
PU242	4890.000	4844.314	280.467	4.000	-1.040	5.040	*******	100.0000	-1.44E-03	3.83E-03	3.73E-01	7.50E-01	3.83E-03
PU-244	4589.000	4527.499	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.00E-03	1.71E-03	1.94E-02	4.25E-02	1.71E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965495	CHAMBER : 027	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071666_PU	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1130
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 34.2191	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 25-MAR-2010 20:23:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W027.CNF;331
% YIELD : 81.537		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9663E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4186E+00 dpm		

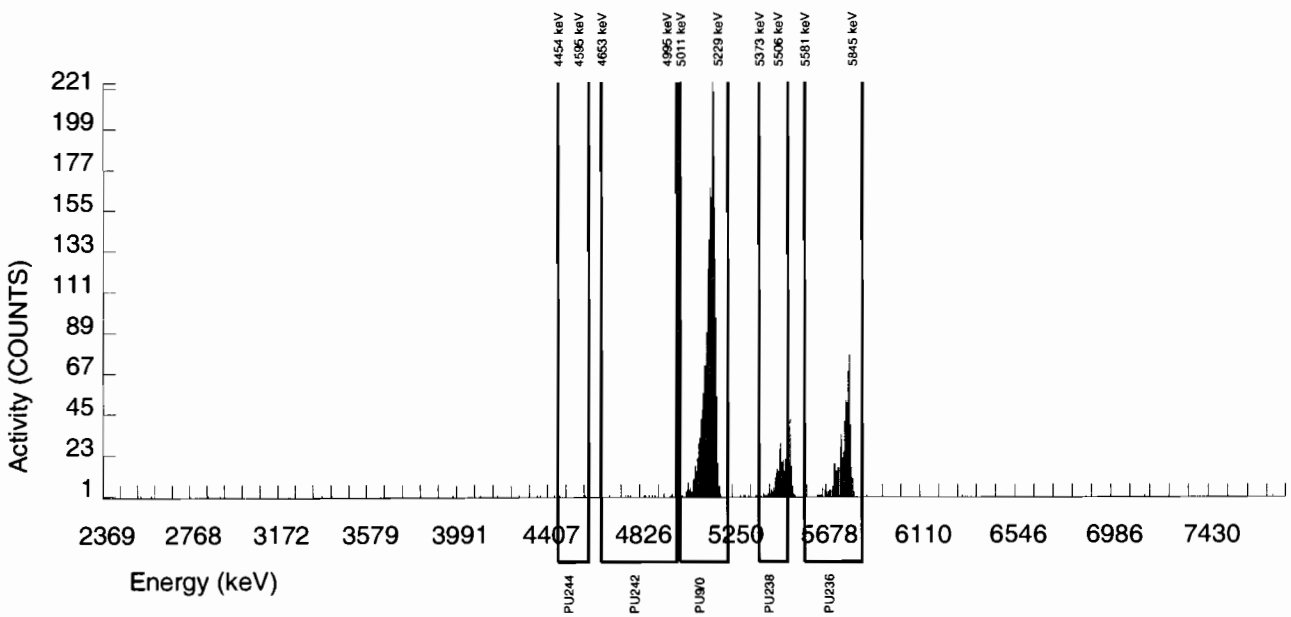
NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5766.654	25.159	595.000	594.280	0.720	0.8485	100.0000	1.25E+01	9.69E-01	3.84E-02	1.34E-01	5.13E-01
PU-238	5499.000	5477.545	0.000	242.000	240.560	1.440	2.4495	99.90000	5.05E+00	4.66E-01	1.11E-01	2.79E-01	3.27E-01
PU-9/0	5155.000	5150.152	34.627	1899.000	1898.280	0.720	1.9732	99.90000	3.98E+01	2.78E+00	8.93E-02	2.35E-01	9.14E-01
PU242	4890.000	4877.799	39.737	16.000	13.840	2.160	*******	100.0000	2.90E-01	8.99E-02	5.64E+00	1.13E+01	8.78E-02
PU-244	4589.000	4526.901	114.244	2.000	2.000	0.000	6.4609	99.90000	4.20E-02	2.98E-02	2.92E-01	6.42E-01	2.97E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).



Radiochemistry Batch Checklist, Rev10

Batch# 965496 Product: U Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
GC data entered into GC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/30/10

Secondary Review Performed By: [signature] 3/30/10

3/31

Uranium Que Sheet

15-MAR-10

Batch #: 965496 Analyst: MXE1 First Client Due Date:31-MAR-10 Internal Due Date:20-MAR-10 N/A

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1 Analyzed Sequentially with Pu

LCS Isotope: U-238 LCS Code: / Expiration Date: / Vol: / Pu-236 ID: /

Spike Isotope: U-238 Spike Code: / Expiration Date: / Vol: / Vol.: /

Prep Date: 3/22/10 Initials: MAL Pipet ID: 1971058 Balance ID: 50410272 Witness: JEH 3-22-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g)(1/f)	U Det #
248515001-1	RE36-10-7501	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	1	1	0.504	1
248515002-1	RE36-10-7524	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	2	2	0.503	2
248515003-1	RE36-10-7525	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	3	3	0.502	3
248517001-1	RE36-10-8292	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	4	4	0.519	4
248521001-1	RE36-10-8288	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	5	5	0.506	5
248521002-1	RE36-10-8279	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	6	6	0.511	6
248521003-1	RE36-10-8277	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	7	7	0.515	7
248521004-1	RE36-10-8280	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	8	8	0.509	8
248521005-1	RE36-10-8278	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	9	9	0.502	9
248521006-1	RE36-10-8274	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	10	10	0.508	10
248521007-1	RE36-10-8291	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	11	11	0.503	126 ~~125~~
248521008-1	RE36-10-8287	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	12	12	0.506	127
248521009-1	RE36-10-8273	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	13	13	0.514	130
248521010-1	RE36-10-8275	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	14	14	0.505	131 ~~131~~
248521011-1	RE36-10-8276	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	15	15	0.503	121
248526001-1	RE36-10-8466	SAMPLE		.1 pCi/g	SOIL	LANL010	25-FEB-10	16	16	0.505	122
1202071667-1	MB for batch 965496	MB		.1 pCi/g	SOIL	QC ACCOUNT		17	17		123
1202071668-1	RE36-10-8466(248526001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	25-FEB-10	18	18	0.516	124
1202071669-1	LCS for batch 965496	LCS		.1 pCi/g	SOIL	QC ACCOUNT		19	19	0.101	125

#SRM 0244-A EXP: 10/31/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: JoLMS - 3/30/10

Blank Correction Report

Batch ID 965496

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071668	DUP	Uranium-233/234	0.516 g	0.894	0.0889	0.116	.016996124	pCi/g	NO
		Uranium-235/236	0.516 g	0.0709	0.0221	0.0706	.017286822	pCi/g	YES
		Uranium-238	0.516 g	0.967	0.0945	0.0813	.024418605	pCi/g	NO
1202071669	LCS	Uranium-233/234	0.101 g	7.26	0.696	0.586	.086831683	pCi/g	NO
		Uranium-235/236	0.101 g	0.386	0.104	0.358	.088316832	pCi/g	YES
		Uranium-238	0.101 g	6.01	0.593	0.412	.124752475	pCi/g	NO
1202071667	MB	Uranium-233/234	1.00 g	0.00877	0.00477	0.0509	.00877	pCi/g	YES
		Uranium-235/236	1.00 g	0.00892	0.00634	0.0311	.00892	pCi/g	YES
		Uranium-238	1.00 g	0.0126	0.00549	0.0358	.0126	pCi/g	YES
248515001	RE36-10-7501	Uranium-233/234	0.504 g	0.937	0.0894	0.103	.017400794	pCi/g	NO
		Uranium-235/236	0.504 g	0.0226	0.0121	0.0631	.017698413	pCi/g	YES
		Uranium-238	0.504 g	1.06	0.0985	0.0726	.025	pCi/g	NO
248515002	RE36-10-7524	Uranium-233/234	0.503 g	1.25	0.121	0.133	.017435388	pCi/g	NO
		Uranium-235/236	0.503 g	0.0759	0.0218	0.0814	.017733598	pCi/g	YES
		Uranium-238	0.503 g	1.83	0.164	0.0936	.025049702	pCi/g	NO
248515003	RE36-10-7525	Uranium-233/234	0.502 g	1.33	0.136	0.174	.017470120	pCi/g	NO
		Uranium-235/236	0.502 g	0.0456	0.0218	0.106	.017768924	pCi/g	YES
		Uranium-238	0.502 g	1.26	0.130	0.122	.025099602	pCi/g	NO
248517001	RE36-10-8292	Uranium-233/234	0.519 g	0.947	0.093	0.113	.016897881	pCi/g	NO
		Uranium-235/236	0.519 g	0.0744	0.0212	0.0691	.017186898	pCi/g	YES
		Uranium-238	0.519 g	1.07	0.102	0.0796	.024277457	pCi/g	NO
248521001	RE36-10-8288	Uranium-233/234	0.506 g	1.04	0.0961	0.0979	.017332016	pCi/g	NO
		Uranium-235/236	0.506 g	0.0515	0.0186	0.0598	.017628458	pCi/g	YES
		Uranium-238	0.506 g	0.857	0.0821	0.0688	.024901186	pCi/g	NO
248521002	RE36-10-8279	Uranium-233/234	0.511 g	3.43	0.305	0.188	.017162427	pCi/g	NO
		Uranium-235/236	0.511 g	0.157	0.0397	0.115	.017455969	pCi/g	NO
		Uranium-238	0.511 g	3.24	0.290	0.132	.024657534	pCi/g	NO
248521003	RE36-10-8277	Uranium-233/234	0.515 g	1.43	0.130	0.117	.017029126	pCi/g	NO
		Uranium-235/236	0.515 g	0.0976	0.0256	0.0716	.017320388	pCi/g	NO
		Uranium-238	0.515 g	1.40	0.128	0.0824	.024466019	pCi/g	NO
248521004	RE36-10-8280	Uranium-233/234	0.509 g	3.49	0.298	0.157	.017229862	pCi/g	NO
		Uranium-235/236	0.509 g	0.179	0.0389	0.0961	.017524558	pCi/g	NO
		Uranium-238	0.509 g	3.01	0.261	0.111	.024754420	pCi/g	NO
248521005	RE36-10-8278	Uranium-233/234	0.502 g	0.937	0.0891	0.102	.017470120	pCi/g	NO
		Uranium-235/236	0.502 g	0.0582	0.0178	0.0624	.017768924	pCi/g	YES
		Uranium-238	0.502 g	0.974	0.092	0.0718	.025099602	pCi/g	NO
248521006	RE36-10-8274	Uranium-233/234	0.508 g	1.18	0.109	0.107	.017263780	pCi/g	NO
		Uranium-235/236	0.508 g	0.0844	0.0218	0.0653	.017559055	pCi/g	YES
		Uranium-238	0.508 g	1.41	0.125	0.0752	.024803150	pCi/g	NO
248521007	RE36-10-8291	Uranium-233/234	0.503 g	1.66	0.165	0.185	.017435388	pCi/g	NO
		Uranium-235/236	0.503 g	0.114	0.0336	0.113	.017733598	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248521007	RE36-10-8291	Uranium-238	0.503 g	2.25	0.211	0.130	.025049702	pCi/g	NO
248521008	RE36-10-8287	Uranium-233/234	0.506 g	1.36	0.132	0.149	.017332016	pCi/g	NO
		Uranium-235/236	0.506 g	0.0521	0.0188	0.0908	.017628458	pCi/g	YES
		Uranium-238	0.506 g	1.58	0.149	0.104	.024901186	pCi/g	NO
248521009	RE36-10-8273	Uranium-233/234	0.514 g	1.65	0.157	0.158	.017062257	pCi/g	NO
		Uranium-235/236	0.514 g	0.111	0.0306	0.0967	.017354086	pCi/g	NO
		Uranium-238	0.514 g	2.11	0.192	0.111	.024513619	pCi/g	NO
248521010	RE36-10-8275	Uranium-233/234	0.505 g	1.26	0.125	0.151	.017366337	pCi/g	NO
		Uranium-235/236	0.505 g	0.0594	0.0203	0.092	.017663366	pCi/g	YES
		Uranium-238	0.505 g	1.54	0.147	0.106	.024950495	pCi/g	NO
248521011	RE36-10-8276	Uranium-233/234	0.503 g	1.05	0.103	0.127	.017435388	pCi/g	NO
		Uranium-235/236	0.503 g	0.0611	0.019	0.0775	.017733598	pCi/g	YES
		Uranium-238	0.503 g	0.971	0.0974	0.0891	.025049702	pCi/g	NO
248526001	RE36-10-8466	Uranium-233/234	0.505 g	0.961	0.0964	0.125	.017366337	pCi/g	NO
		Uranium-235/236	0.505 g	0.0657	0.0196	0.0763	.017663366	pCi/g	YES
		Uranium-238	0.505 g	0.811	0.0844	0.0878	.024950495	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965496	CHAMBER : 004	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248517001_UU	DETECTOR S/N : 68548	BKG FILE : B004.CNF;1129
SAMPLE QTY : 0.519 G	AVERAGE %EFFICIENCY : 31.2086	BKG DATE : 21-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:01:46	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W004.CNF;332
% YIELD : 69.300		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.1204E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

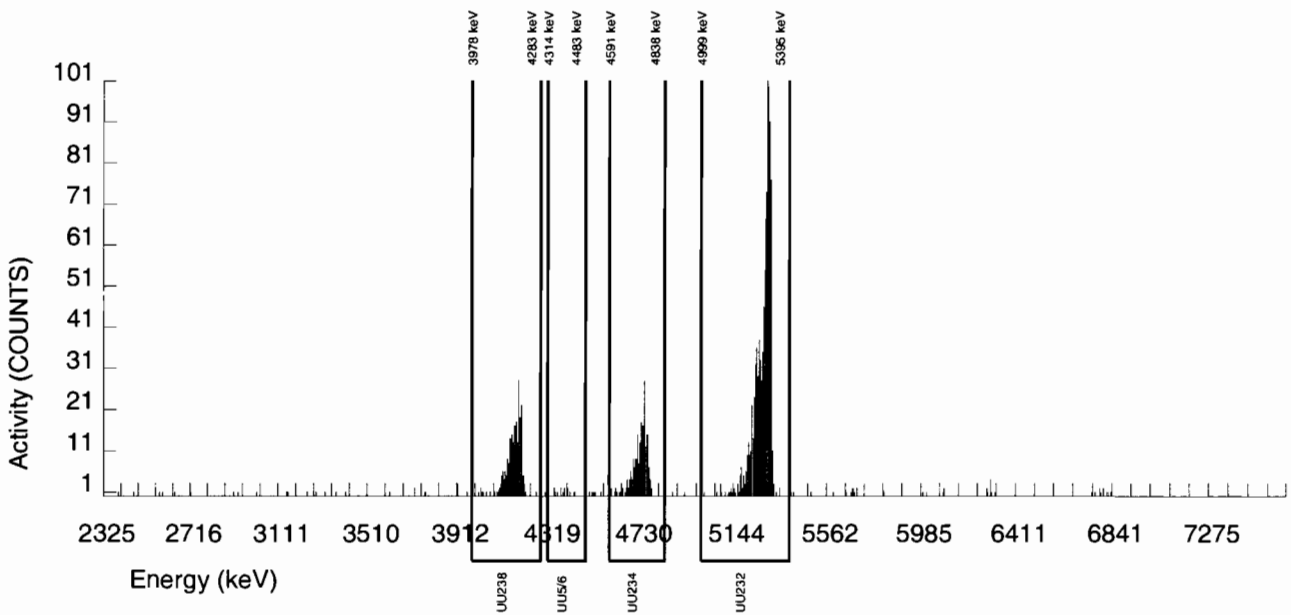
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5279.964	28.103	979.000	973.000	6.000	2.4495	100.0000	3.91E+00	3.11E-01	2.29E-02	5.66E-02	1.26E-01
U-3/4	4763.020	4732.922	44.256	240.000	236.014	3.000	5.4790	100.0000	9.47E-01	9.30E-02	5.12E-02	1.13E-01	6.24E-02
U-235	4391.000	4382.934	63.127	16.000	15.000	1.000	2.4127	80.90000	7.44E-02	2.12E-02	2.78E-02	6.91E-02	2.05E-02
U-238	4184.730	4168.387	47.590	271.000	266.000	5.000	3.6781	100.0000	1.07E+00	1.02E-01	3.43E-02	7.96E-02	6.67E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965496	CHAMBER : 122	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248526001_UU	DETECTOR S/N : 75546	BKG FILE : B122.CNF;461
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 26.3997	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 29-MAR-2010 12:38:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W122.CNF;124
% YIELD : 76.287		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.4350E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

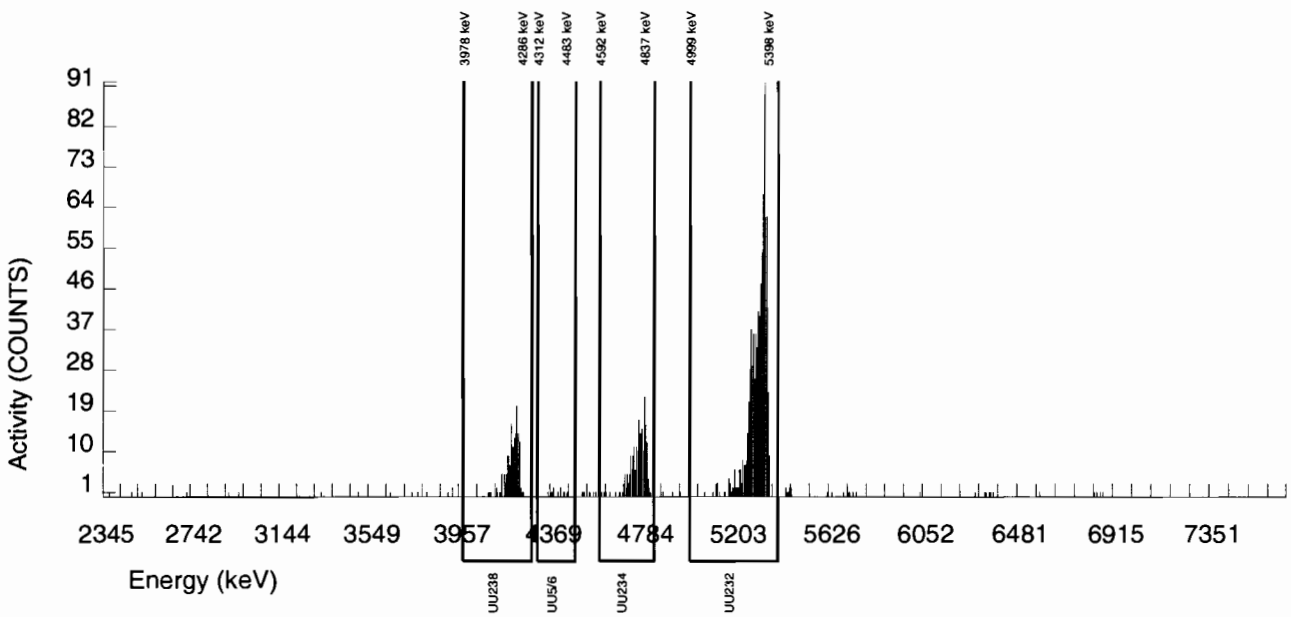
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5314.536	28.294	909.000	906.000	3.000	1.7321	100.0000	4.02E+00	3.23E-01	1.78E-02	4.77E-02	1.34E-01
U-3/4	4763.020	4769.516	38.874	220.000	217.082	2.000	5.4790	100.0000	9.61E-01	9.64E-02	5.65E-02	1.25E-01	6.59E-02
U-235	4391.000	4400.077	36.976	12.000	12.000	0.000	2.4127	80.90000	6.57E-02	1.96E-02	3.07E-02	7.63E-02	1.90E-02
U-238	4184.730	4204.772	43.897	183.000	183.000	0.000	3.6781	100.0000	8.11E-01	8.44E-02	3.79E-02	8.78E-02	5.99E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965496	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071667_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;459
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 27.2378	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 12:38:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;120
% YIELD : 91.649		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1238E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

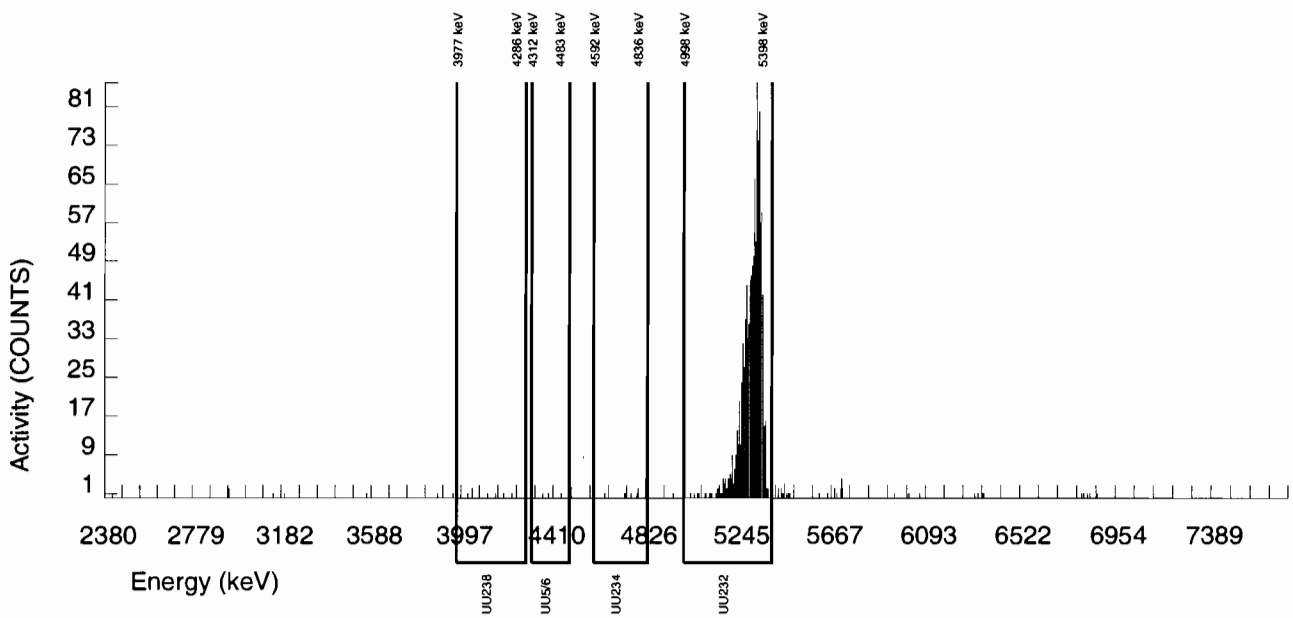
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.578	69.448	1127.000	1123.000	4.000	2.0000	100.0000	2.03E+00	1.57E-01	8.40E-03	2.17E-02	6.07E-02
U-3/4	4763.020	4755.920	7.306	7.000	4.862	1.000	5.4790	100.0000	8.77E-03	4.77E-03	2.30E-02	5.09E-02	4.73E-03
U-235	4391.000	4405.786	0.000	6.000	4.000	2.000	2.4127	80.90000	8.92E-03	6.34E-03	1.25E-02	3.11E-02	6.31E-03
U-238	4184.730	4102.917	4.975	8.000	7.000	1.000	3.6781	100.0000	1.26E-02	5.49E-03	1.54E-02	3.58E-02	5.41E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965496	CHAMBER : 124	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071668_UU	DETECTOR S/N : 45-142V2	BKG FILE : B124.CNF;455
SAMPLE QTY : 0.516 G	AVERAGE %EFFICIENCY : 26.6674	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 29-MAR-2010 12:38:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W124.CNF;116
% YIELD : 79.855		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.5956E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

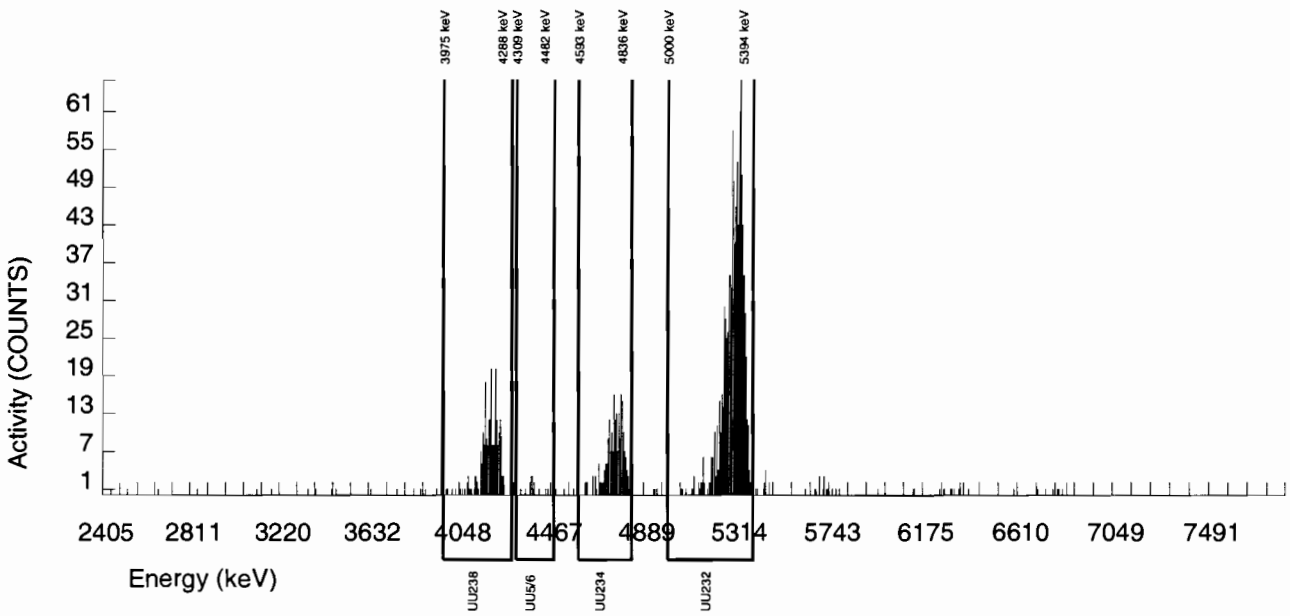
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.034	68.031	961.000	958.000	3.000	1.7321	100.0000	3.93E+00	3.13E-01	1.65E-02	4.41E-02	1.27E-01
U-3/4	4763.020	4762.239	69.940	219.000	218.029	0.000	5.4790	100.0000	8.94E-01	8.89E-02	5.23E-02	1.16E-01	6.05E-02
U-235	4391.000	4392.442	22.414	16.000	14.000	2.000	2.4127	80.90000	7.09E-02	2.21E-02	2.84E-02	7.06E-02	2.15E-02
U-238	4184.730	4191.114	72.892	236.000	236.000	0.000	3.6781	100.0000	9.67E-01	9.45E-02	3.51E-02	8.13E-02	6.30E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965496	CHAMBER : 125	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071669_UU	DETECTOR S/N : 75547	BKG FILE : B125.CNF;465
SAMPLE QTY : 0.101 G	AVERAGE %EFFICIENCY : 27.0077	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 12:38:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W125.CNF;134
% YIELD : 79.425		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.5738E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

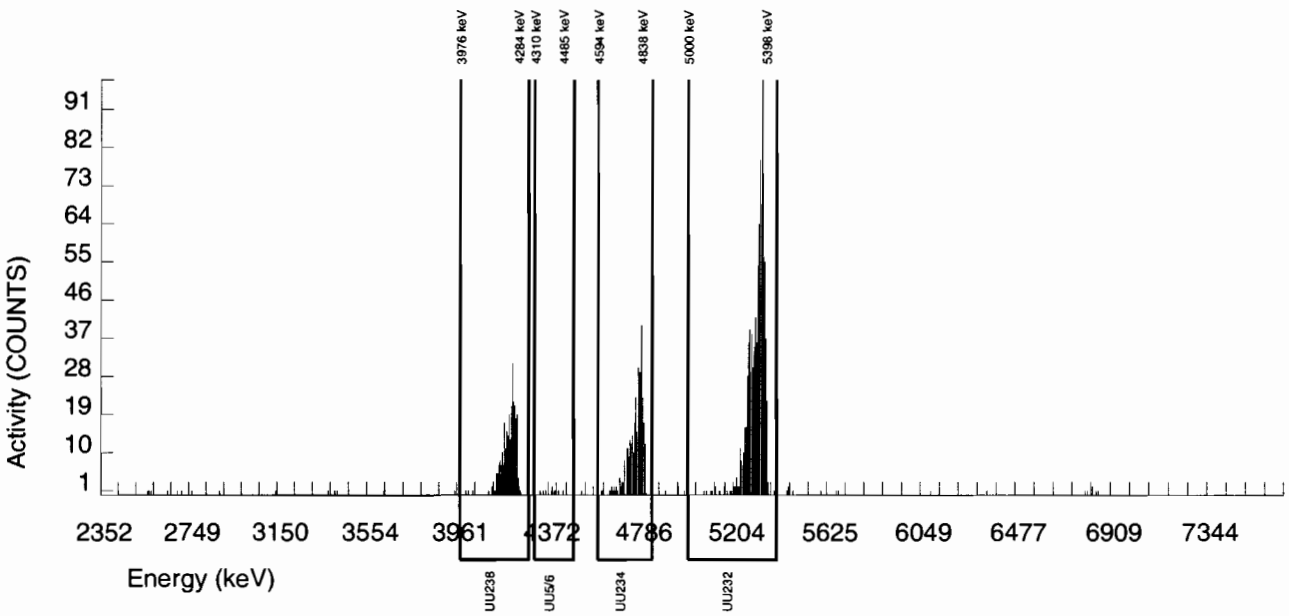
NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.873	32.379	972.000	965.000	7.000	2.6458	100.0000	2.01E+01	1.72E+00	1.28E-01	3.12E-01	6.51E-01
U-3/4	4763.020	4769.329	34.451	352.000	349.022	2.000	5.4790	100.0000	7.26E+00	6.96E-01	2.65E-01	5.86E-01	3.91E-01
U-235	4391.000	4401.995	19.680	15.000	15.000	0.000	2.4127	80.90000	3.85E-01	1.04E-01	1.44E-01	3.58E-01	9.95E-02
U-238	4184.730	4199.055	56.237	289.000	289.000	0.000	3.6781	100.0000	6.01E+00	5.93E-01	1.78E-01	4.12E-01	3.53E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4



Radiochemistry Batch Checklist, Rev10

Batch# 961099 **Product:** YS **Date:** 3/23/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/23/10

Secondary Review Performed By: [signature] 3/25/10

LANL
3/31/10

Gamma Spec Que Sheet

1.G.-3/13/10

03/04/2010

Batch #:961099 **Analyst: MXR1** **First Client DueDate 03/31/2010** **Internal Due Date: 03/20/2010**

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0mL **Nominal Concentration:** Am241-15.9 Cs137-5.551 Co60-4.337

Initials: MS **Prep Date:** 3/6/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/2/F)	Detector	Sealing Date/Time (if Applicable)
248515001-1	RE36-10-7501	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U	Can	115.40	1	3/6/10
248515002-1	RE36-10-7524	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		105.04	5	
248515003-1	RE36-10-7525	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		101.89	17	
248517001-1	RE36-10-8292	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		118.57	18	
248521001-1	RE36-10-8288	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		116.74	19	
248521002-1	RE36-10-8279	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		93.39	22	
248521003-1	RE36-10-8277	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		127.78	23	
248521004-1	RE36-10-8280	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		102.78	5	
248521005-1	RE36-10-8278	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		138.24	20	
248521006-1	RE36-10-8274	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		126.55	22	
248521007-1	RE36-10-8291	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		94.55	23	
248521008-1	RE36-10-8287	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		125.43	6	
248521009-1	RE36-10-8273	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		106.26	21	
248521010-1	RE36-10-8275	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		118.51	5	
248521011-1	RE36-10-8276	SAMPLE		LANL010	SOIL	25-FEB-10 12:00:00	U		127.14	6	
248526001-1	RE36-10-8466	SAMPLE		LANL010	SOIL	25 ~~28~~-FEB-10 12:00:00 3/23/10	U		133.66	25	
1202061469-1	MB	MB		QC ACCOUNT	SOIL	3/6/10	U		138.24	11	
1202061470-1	DUP RE36-10-8466(248526001)	DUP		QC ACCOUNT	SOIL	25 ~~28~~-FEB-10 12:00:00 3/27/10	U		133.66	12	
1202061471-1	LCS	LCS		QC ACCOUNT	SOIL	3/6/10	U		155.44	20	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 3/23/10

daily cor

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
961099	248515001	SAMPLE	19-MAR-10		Americium-241	-0.02975	0.3055	0.200
					Cerium-139	0.01085	0.06301	0.050
					Sodium-22	-0.01358	0.09443	0.080
961099	248515002	SAMPLE	19-MAR-10		Cerium-139	-0.01952	0.0634	0.050
					Cesium-134	0.06145	0.1279	0.100
					Europium-152	-0.04487	0.2164	0.200
					Sodium-22	-0.02552	0.09177	0.080
					Tin-113	-0.03998	0.1029	0.100
961099	248515003	SAMPLE	19-MAR-10		Cerium-139	0.0067	0.05995	0.050
					Cesium-134	0.0363	0.1263	0.100
					Cobalt-60	-0.0124	0.1051	0.100
					Europium-152	-0.02114	0.2054	0.200
					Sodium-22	0.04317	0.1158	0.080
961099	248517001	SAMPLE	19-MAR-10		Americium-241	0.01443	0.2962	0.200
961099	248521001	SAMPLE	19-MAR-10		Americium-241	-0.2299	0.2915	0.200
					Cerium-139	0.00736	0.06227	0.050
					Sodium-22	0.0247	0.08407	0.080
					Thorium-234	1.651	2.73	2.00
961099	248521002	SAMPLE	19-MAR-10		Americium-241	0.00107	0.2611	0.200
					Cerium-139	-0.0065	0.05951	0.050
961099	248521003	SAMPLE	19-MAR-10		Americium-241	-0.2094	0.3639	0.200
					Cerium-139	-0.02197	0.05769	0.050
					Sodium-22	0.00419	0.08545	0.080
					Thorium-234	0.4782	3.194	2.00
961099	248521004	SAMPLE	19-MAR-10					
961099	248521005	SAMPLE	19-MAR-10					
961099	248521006	SAMPLE	19-MAR-10					
961099	248521007	SAMPLE	19-MAR-10		Americium-241	0.1365	0.3233	0.200
					Cerium-139	0.00831	0.05244	0.050
961099	248521008	SAMPLE	19-MAR-10		Americium-241	0.06564	0.2296	0.200
961099	248521009	SAMPLE	19-MAR-10					
961099	248521010	SAMPLE	20-MAR-10		Cerium-139	-0.01255	0.06199	0.050
					Cesium-134	0.09313	0.1174	0.100
					Europium-152	-0.016	0.2019	0.200
					Tin-113	0.02304	0.1029	0.100
961099	248521011	SAMPLE	20-MAR-10		Americium-241	-0.03372	0.3132	0.200
					Cerium-139	-0.01403	0.05819	0.050
					Cesium-134	0.073	0.1055	0.100
					Sodium-22	-0.00052	0.08276	0.080
					Thorium-234	1.58	2.849	2.00
961099	248526001	SAMPLE	19-MAR-10		Sodium-22	-0.01771	0.08363	0.080
961099	1202061469	MB	20-MAR-10					
961099	1202061470	DUP	20-MAR-10		Americium-241	0.08004	0.2852	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
961099	1202061470	DUP	20-MAR-10		Cerium-139	-0.01147	0.05635	0.050
					Cesium-134	0.08606	0.101	0.100
					Sodium-22	0.01471	0.09368	0.080
					Thorium-234	1.87	2.387	2.00
961099	1202061471	LCS	20-MAR-10		Cerium-139	0.00887	0.07493	0.050
					Cesium-134	0.01997	0.148	0.100
					Europium-152	-0.01901	0.2823	0.200
					Mercury-203	0.05997	0.1118	0.100
					Ruthenium-106	-0.214	0.9365	0.800
					Thorium-234	-0.3045	2.669	2.00
					Tin-113	0.00634	0.1341	0.100

Gamma Review Report based on Result > MDA for Batch:961099

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248515001	25-FEB-10 12:00	19-MAR-10 20:40	22.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ML	2.061	0.2267	pCi/g	0.2885	N	911.7	3	1.78	IDENTIFIED	9.248	☐	
Annihilation Rad.	0.2414	0.04889	pCi/g	0.05866	N	511.7	1	1.987	IDENTIFIED	19.81	☐	
Bismuth-211 INT	4.504	0.3398	pCi/g	0.3988	Y	352.3	2	1.257	IDENTIFIED	6.026	☑ UI	
Bismuth-212 HE	1.813	0.6057	pCi/g	1.511	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.317	0.1172	pCi/g	0.1379	0.200	609.9	2	1.543	IDENTIFIED	7.391	☐	
Cerium-143	14720	3961	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.134	0.04049	pCi/g	0.1158	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	9.896	1.578	pCi/g	3.622	N		0				☐	
Iodine-133 HE	2.55E+05	1.14E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	7.11E+22	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212 ✓	1.975	0.1233	pCi/g	0.1097	0.100	239.1	2	1.239	IDENTIFIED	3.618	☐	
Lead-214 ✓	1.634	0.1313	pCi/g	0.1474	0.100	352.3	2	1.257	IDENTIFIED	6.026	☐	
Potassium-40 ✓	31.34	1.736	pCi/g	0.7238	1.00	1461	1	2.073	IDENTIFIED	3.306	☐	
Promethium-149 HE	139.6	544.2	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224 INT	4.826	0.8251	pCi/g	1.176	Y	242	1	1.708	IDENTIFIED	16.48	☑ UI	
Radium-226 ✓	1.317	0.1172	pCi/g	0.1379	Y	609.9	2	1.543	IDENTIFIED	7.391	☐	
Radium-228 ✓	2.061	0.2267	pCi/g	0.2885	0.500	911.7	3	1.78	IDENTIFIED	9.248	☐	
Sodium-24 HE	7.70E+08	1.27E+09	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85 LA	0.1743	0.03097	pCi/g	0.114	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	5.77E+24	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208 ✓	0.5484	0.05811	pCi/g	0.07603	0.080	583.7	1	1.388	IDENTIFIED	9.576	☐	
Thorium-228 ML	1.975	0.1233	pCi/g	0.1097	N	239.1	2	1.239	IDENTIFIED	3.618	☐	
Thorium-232 ML	2.061	0.2267	pCi/g	0.2885	N	911.7	3	1.78	IDENTIFIED	9.248	☐	
Thorium-234 ✓	3.632	1.54	pCi/g	2.652	2.00	62.67	2	2.648	IDENTIFIED	41.44	☐	
Total Uranium	10.721	4.58E-06	ug/g	3.9476	N		0				☐	
Uranium-238 HE	3.632	1.54	pCi/g	2.652	N	62.67	2	2.648	IDENTIFIED	41.44	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248515002	25-FEB-10 12:00	19-MAR-10 20:40	22.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ML	2.114	0.2232	pCi/g	0.3349	N	910.6	3	1.681	IDENTIFIED	8.432	☐	
Annihilation Rad. HE	0.1218	0.04388	pCi/g	0.0628	N	510.7	1	2.137	IDENTIFIED	35.88	☐	
Barium-137m	0.7043	0.06822	pCi/g	0.08525	N	661.1	2	1.447	IDENTIFIED	9.111	☐	
Bismuth-211 INT	5.269	0.374	pCi/g	0.475	Y	351.6	2	1.308	IDENTIFIED	5.896	☑ UI	
Bismuth-212 LA	2.793	0.5143	pCi/g	1.617	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.45	0.1367	pCi/g	0.1681	0.200	608.8	2	1.489	IDENTIFIED	8.432	☐	
Cadmium-109 INT	4.589	0.5401	pCi/g	1.17	Y	86.88	3	1.311	IDENTIFIED	11.13	☑ UI	
Cerium-143	61180	9713	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-135 HE	0.6264	0.171	pCi/g	0.3377	N	269.5	1	1.113	IDENTIFIED	26.77	☐	
Cesium-137 ✓	0.7441	0.0721	pCi/g	0.09006	0.100	661.1	2	1.447	IDENTIFIED	9.111	☐	

Gross Gamma	**11.04**	1.401	pCi/g	**4.956**	N		0				☐	
Lead-210 ✓	**2.518**	0.5574	pCi/g	**1.047**	N	46.16	1	1.123	IDENTIFIED	21.8	☐	
Lead-212 ✓	**1.982**	0.1291	pCi/g	**0.124**	**0.100**	238.3	2	1.234	IDENTIFIED	3.623	☐	
Lead-214 ✓	**1.912**	0.1456	pCi/g	**0.1728**	**0.100**	351.6	2	1.308	IDENTIFIED	5.896	☐	
Neptunium-237 MU	**1.324**	0.2087	pCi/g	**0.336**	N	86.88	3	1.311	IDENTIFIED	11.13	☐	
Niobium-95m LA	**1.298**	0.1382	pCi/g	**0.4309**	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	**27.67**	1.345	pCi/g	**0.7029**	**1.00**	1460	1	2.054	IDENTIFIED	3.738	☐	
Radium-224 INT	**5.202**	0.8554	pCi/g	**1.329**	Y	241.4	1	1.846	IDENTIFIED	15.7	☑ UJ	
Radium-226 ✓	**1.45**	0.1367	pCi/g	**0.1681**	Y	608.8	2	1.489	IDENTIFIED	8.432	☐	
Radium-228 ✓	**2.114**	0.2232	pCi/g	**0.3349**	**0.500**	910.6	3	1.681	IDENTIFIED	8.432	☐	
Silver-110m HE	**0.17**	0.03451	pCi/g	**0.1161**	N	0	5	0	NOT_IDENTI	0	☐	
Strontium-85 LA	**0.1219**	0.03042	pCi/g	**0.1014**	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	**0.6067**	0.06195	pCi/g	**0.08852**	**0.080**	582.8	1	1.596	IDENTIFIED	9.527	☐	
Thorium-228 MU	**1.982**	0.1291	pCi/g	**0.124**	N	238.3	2	1.234	IDENTIFIED	3.623	☐	
Thorium-232 MU	**2.114**	0.2232	pCi/g	**0.3349**	N	910.6	3	1.681	IDENTIFIED	8.432	☐	
Thorium-234 ✓	**3.043**	0.7412	pCi/g	**1.27**	**2.00**	62.68	2	1.232	IDENTIFIED	22.6	☐	
Tin-126 MU	**0.4437**	0.05223	pCi/g	**0.1129**	N	86.88	3	1.311	IDENTIFIED	11.13	☐	
Total Uranium	**9.0888**	2.21E-06	ug/g	**1.8936**	N		0				☐	
Uranium-238 MU	**3.043**	0.7412	pCi/g	**1.27**	N	62.68	2	1.232	IDENTIFIED	22.6	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248515003	25-FEB-10 12:00	19-MAR-10 20:40	22.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 MU	**1.658**	0.2738	pCi/g	**0.3669**	N	911.1	3	1.431	IDENTIFIED	15.45	☐	
Annihilation Rad. HE	**0.1574**	0.04928	pCi/g	**0.06246**	N	511.2	1	1.937	IDENTIFIED	30.98	☐	
Barium-137m MU	**0.5492**	0.06421	pCi/g	**0.09338**	N	661.7	2	1.443	IDENTIFIED	10.91	☐	
Bismuth-211 INT	**5.012**	0.399	pCi/g	**0.457**	Y	351.8	2	1.217	IDENTIFIED	6.453	☑ UJ	
Bismuth-212 LA	**3.37**	0.7108	pCi/g	**1.904**	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	**1.64**	0.1524	pCi/g	**0.1682**	**0.200**	609.3	2	1.502	IDENTIFIED	7.759	☐	
Cadmium-109 INT	**4.255**	0.4879	pCi/g	**1.083**	Y	87.32	3	1.077	IDENTIFIED	10.38	☑ UJ	
Cerium-143	**17180**	4304	pCi/g	**0**	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-137 ✓	**0.5801**	0.06785	pCi/g	**0.09865**	**0.100**	661.7	2	1.443	IDENTIFIED	10.91	☐	
Gross Gamma	**10.59**	1.486	pCi/g	**4.12**	N		0				☐	
Lead-210 ✓	**2.503**	0.5623	pCi/g	**0.9075**	N	46.79	1	0.9957	IDENTIFIED	21.81	☐	
Lead-212 ✓	**1.909**	0.1218	pCi/g	**0.1096**	**0.100**	238.7	2	1.172	IDENTIFIED	3.886	☐	
Lead-214 ✓	**1.819**	0.1533	pCi/g	**0.1663**	**0.100**	351.8	2	1.217	IDENTIFIED	6.453	☐	
Mercury-203 INT	**0.1081**	0.03763	pCi/g	**0.08235**	**0.100**	277.7	1	1.348	IDENTIFIED	34.49	☑ UJ	
Neptunium-237 MU	**1.228**	0.1907	pCi/g	**0.311**	N	87.32	3	1.077	IDENTIFIED	10.38	☐	
Potassium-40 ✓	**26.92**	1.638	pCi/g	**0.6643**	**1.00**	1460	1	1.811	IDENTIFIED	4.159	☐	
Promethium-149 HE	**418.8**	556.6	pCi/g	**0**	N	0	3	0	SHORT_HLIF	0	☐	
Radium-224 INT	**6.037**	0.9674	pCi/g	**1.176**	Y	241.5	1	1.928	IDENTIFIED	15.37	☑ UJ	
Radium-226 ✓	**1.64**	0.1524	pCi/g	**0.1682**	Y	609.3	2	1.502	IDENTIFIED	7.759	☐	
Radium-228 ✓	**1.658**	0.2738	pCi/g	**0.3669**	**0.500**	911.1	3	1.431	IDENTIFIED	15.45	☐	
Thallium-208 ✓	**0.5493**	0.07129	pCi/g	**0.0802**	**0.080**	583.3	1	1.562	IDENTIFIED	12.09	☐	
Thorium-228 MU	**1.909**	0.1218	pCi/g	**0.1096**	N	238.7	2	1.172	IDENTIFIED	3.886	☐	
Thorium-232 MU	**1.658**	0.2738	pCi/g	**0.3669**	N	911.1	3	1.431	IDENTIFIED	15.45	☐	

Thorium-234	✓	3.205	0.7378	pCi/g	1.172	2.00	63.43	2	1.193	IDENTIFIED	20.96	☐
Tin-126	ML	0.4114	0.04717	pCi/g	0.1046	N	87.32	3	1.077	IDENTIFIED	10.38	☐
Total Uranium		9.4784	2.20E-06	ug/g	1.747	N		0				☐
Uranium-238	ML	3.205	0.7378	pCi/g	1.172	N	63.43	2	1.193	IDENTIFIED	20.96	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248517001	25-FEB-10 12:00	19-MAR-10 20:41	22.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.884	0.1995	pCi/g	0.1985	N	910.6	3	1.562	IDENTIFIED	8.139	☐	
Annihilation Rad.		0.127	0.02866	pCi/g	0.04099	N	510.5	1	1.859	IDENTIFIED	22.32	☐	
Barium-137m	ML	0.3135	0.03675	pCi/g	0.04627	N	661.5	2	2.039	IDENTIFIED	11.09	☐	
Bismuth-211	INT	4.691	0.2495	pCi/g	0.2913	Y	351.8	2	1.383	IDENTIFIED	4.239	☑ UI	
Bismuth-212	LA	2.586	0.3934	pCi/g	1.046	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.315	0.1017	pCi/g	0.09414	0.200	608.8	2	1.715	IDENTIFIED	6.295	☐	
Cadmium-109	INT	3.718	0.5662	pCi/g	1.262	Y	87.21	3	1.212	IDENTIFIED	14.52	☑ UI	
Cerium-143		33770	5024	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.3312	0.03883	pCi/g	0.04888	0.100	661.5	2	2.039	IDENTIFIED	11.09	☐	
Gross Gamma		10.09	1.362	pCi/g	2.711	N		0				☐	
Lead-212	✓	1.776	0.08282	pCi/g	0.08485	0.100	238.7	2	1.167	IDENTIFIED	2.957	☐	
Lead-214	✓	1.703	0.102	pCi/g	0.1059	0.100	351.8	2	1.383	IDENTIFIED	4.239	☐	
Molybdenum-99	HE	10.94	30.7	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Neptunium-237	ML	1.073	0.1983	pCi/g	0.3522	N	87.21	3	1.212	IDENTIFIED	14.52	☐	
Niobium-95	HE	0.1048	0.02462	pCi/g	0.0811	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40	✓	28.53	1.309	pCi/g	0.4202	1.00	1460	1	2.237	IDENTIFIED	2.576	☐	
Radium-224	INT	4.405	0.4692	pCi/g	0.9083	Y	241.7	1	1.767	IDENTIFIED	10.28	☑ UI	
Radium-226	✓	1.315	0.1017	pCi/g	0.09414	Y	608.8	2	1.715	IDENTIFIED	6.295	☐	
Radium-228	✓	1.884	0.1995	pCi/g	0.1985	0.500	910.6	3	1.562	IDENTIFIED	8.139	☐	
Strontium-85	LA	0.1104	0.02005	pCi/g	0.06836	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5435	0.03947	pCi/g	0.04514	0.080	582.8	1	1.408	IDENTIFIED	6.118	☐	
Thorium-228	ML	1.776	0.08282	pCi/g	0.08485	N	238.7	2	1.167	IDENTIFIED	2.957	☐	
Thorium-232	ML	1.884	0.1995	pCi/g	0.1985	N	910.6	3	1.562	IDENTIFIED	8.139	☐	
Thorium-234	✓	3.502	1.317	pCi/g	2.342	2.00	62.99	2	1.136	IDENTIFIED	36.52	☐	
Tin-126	ML	0.3595	0.05475	pCi/g	0.1309	N	87.21	3	1.212	IDENTIFIED	14.52	☐	
Total Uranium		10.378	3.92E-06	ug/g	3.4861	N		0				☐	
Uranium-238	HE	3.502	1.317	pCi/g	2.342	N	62.99	2	1.136	IDENTIFIED	36.52	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521001	25-FEB-10 12:00	19-MAR-10 20:42	22.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	2.177	0.2372	pCi/g	0.2444	N	911.8	3	1.855	IDENTIFIED	9.21	☐	
Annihilation Rad.		0.1537	0.04123	pCi/g	0.05308	N	510.9	1	1.654	IDENTIFIED	26.66	☐	
Barium-137m	ML	0.1568	0.03158	pCi/g	0.06742	N	661.5	2	1.714	IDENTIFIED	19.93	☐	
Bismuth-211	INT	5.105	0.3059	pCi/g	0.4436	Y	351.9	2	1.306	IDENTIFIED	5.071	☑ UI	
Bismuth-212	LA	3.278	0.5471	pCi/g	1.34	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.517	0.11	pCi/g	0.1327	0.200	609.5	2	1.474	IDENTIFIED	6.076	☐	

Cadmium-109 INT	5.614	0.6344	pCi/g	1.282	Y	87.37	3	1.418	IDENTIFIED	10.39	☑ UI		
Cerium-143	46200	6887	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-134 LA	0.208	0.06641	pCi/g	0.1033	0.100	0	8	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137 ✓	0.1657	0.03337	pCi/g	0.07122	0.100	661.5	2	1.714	IDENTIFIED	19.93	☐		
Gross Gamma	11.66	1.543	pCi/g	4.903	N		0				☐		
Iodine-133 HE	2.29E+05	1.06E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212 ✓	2.024	0.1005	pCi/g	0.111	0.100	238.6	2	1.296	IDENTIFIED	3.376	☐		
Lead-214 ✓	1.853	0.1222	pCi/g	0.1429	0.100	351.9	2	1.306	IDENTIFIED	5.071	☐		
Molybdenum-99 HE	28.6	47.32	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Neptunium-237 MU	1.62	0.2497	pCi/g	0.3755	N	87.37	3	1.418	IDENTIFIED	10.39	☐		
Niobium-95m HE	0.4175	0.1001	pCi/g	0.3132	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✓	30.41	1.468	pCi/g	0.5449	1.00	1461	1	1.92	IDENTIFIED	3.072	☐		
Radium-224 INT	5.446	0.673	pCi/g	1.189	Y	241.5	1	1.682	IDENTIFIED	12.03	☑ UI		
Radium-226 ✓	1.517	0.11	pCi/g	0.1327	Y	609.5	2	1.474	IDENTIFIED	6.076	☐		
Radium-228 ✓	2.177	0.2372	pCi/g	0.2444	0.500	911.8	3	1.855	IDENTIFIED	9.21	☐		
Sodium-24 HE	4.73E+08	1.13E+09	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Strontium-85 LA	0.1302	0.02684	pCi/g	0.09239	Y	0	8	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✓	0.6997	0.05529	pCi/g	0.06798	0.080	583.5	1	1.648	IDENTIFIED	7.137	☐		
Thorium-228 MU	2.024	0.1005	pCi/g	0.111	N	238.6	2	1.296	IDENTIFIED	3.376	☐		
Thorium-232 MU	2.177	0.2372	pCi/g	0.2444	N	911.8	3	1.855	IDENTIFIED	9.21	☐		
Tin-126 MU	0.5429	0.06134	pCi/g	0.1245	N	87.37	3	1.418	IDENTIFIED	10.39	☐		
Total Uranium	4.9762	2.40E-06	ug/g	4.0639	N		0				☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521002	25-FEB-10 12:00	19-MAR-10 20:42	22.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228 MU	2.051	0.2415	pCi/g	0.2419	N	911.2	3	2.129	IDENTIFIED	9.627	☐		
Annihilation Rad.	0.1413	0.03758	pCi/g	0.05055	N	510.9	1	1.678	IDENTIFIED	26.12	☐		
Barium-137m MU	0.5919	0.05026	pCi/g	0.07261	N	661.7	2	1.659	IDENTIFIED	6.656	☐		
Bismuth-211 INT	5.373	0.3993	pCi/g	0.3563	Y	352	2	1.369	IDENTIFIED	4.631	☑ UI		
Bismuth-212 LA	2.306	0.4974	pCi/g	1.272	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214 ✓	1.372	0.1149	pCi/g	0.1259	0.200	609.3	2	1.653	IDENTIFIED	6.015	☐		
Cadmium-109 INT	3.184	0.5349	pCi/g	1.408	Y	87.16	3	1.355	IDENTIFIED	16.13	☑ UI		
Cerium-143	39060	6408	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134 LA	0.1073	0.02825	pCi/g	0.09888	0.100	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cesium-137 ✓	0.6253	0.05312	pCi/g	0.0767	0.100	661.7	2	1.659	IDENTIFIED	6.656	☐		
Gross Gamma	10.72	1.348	pCi/g	3.033	N		0				☐		
Iodine-135	2.45E+22	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212 ✓	1.93	0.1431	pCi/g	0.1105	0.100	238.7	2	1.235	IDENTIFIED	3.331	☐		
Lead-214 ✓	1.95	0.1546	pCi/g	0.1295	0.100	352	2	1.369	IDENTIFIED	4.631	☐		
Neptunium-237 MU	0.9185	0.1819	pCi/g	0.3898	N	87.16	3	1.355	IDENTIFIED	16.13	☐		
Potassium-40 ✓	25.99	1.466	pCi/g	0.6113	1.00	1461	1	2.572	IDENTIFIED	3.29	☐		
Promethium-149 HE	760.6	524.1	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Radium-224 INT	4.717	0.738	pCi/g	1.183	Y	241.7	1	1.619	IDENTIFIED	14.33	☑ UI		
Radium-226 ✓	1.372	0.1149	pCi/g	0.1259	Y	609.3	2	1.653	IDENTIFIED	6.015	☐		
Radium-228 ✓	2.051	0.2415	pCi/g	0.2419	0.500	911.2	3	2.129	IDENTIFIED	9.627	☐		

Silver-110m	HE	**0.08238**	0.02518	pCi/g	**0.07849**	N	0	7	0	NOT_IDENTI	0	☐	
Strontium-85	LA	**0.1573**	0.02998	pCi/g	**0.09442**	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	**0.6**	0.05139	pCi/g	**0.06154**	**0.080**	583.1	1	1.751	IDENTIFIED	6.635	☐	
Thorium-228	MU	**1.93**	0.1431	pCi/g	**0.1105**	N	238.7	2	1.235	IDENTIFIED	3.331	☐	
Thorium-232	MU	**2.051**	0.2415	pCi/g	**0.2419**	N	911.2	3	2.129	IDENTIFIED	9.627	☐	
Thorium-234	✓	**4.122**	1.039	pCi/g	**2.281**	**2.00**	63.27	2	0.9345	IDENTIFIED	23.58	☐	
Tin-126	MU	**0.3078**	0.05172	pCi/g	**0.1299**	N	87.16	3	1.355	IDENTIFIED	16.13	☐	
Total Uranium		**12.341**	3.09E-06	ug/g	**3.3962**	N		0				☐	
Uranium-238	HE	**4.122**	1.039	pCi/g	**2.281**	N	63.27	2	0.9345	IDENTIFIED	23.58	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521003	25-FEB-10 12:00	19-MAR-10 20:43	22.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	**1.667**	0.2423	pCi/g	**0.2666**	N	910.1	3	1.705	IDENTIFIED	13.27	☐	
Annihilation Rad.		**0.1775**	0.03498	pCi/g	**0.05225**	N	510.2	1	1.815	IDENTIFIED	19.49	☐	
Barium-137m	MU	**0.4932**	0.04293	pCi/g	**0.06356**	N	660.9	2	1.664	IDENTIFIED	8.321	☐	
Bismuth-211	INT	**4.193**	0.2729	pCi/g	**0.3842**	Y	351.4	2	1.22	IDENTIFIED	5.634	☑ UI	
Bismuth-212	LA	**2.262**	0.3792	pCi/g	**1.285**	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	**1.3**	0.1094	pCi/g	**0.1346**	**0.200**	608.6	2	1.377	IDENTIFIED	7.513	☐	
Cadmium-109	INT	**4.409**	0.6182	pCi/g	**1.354**	Y	86.97	3	1.321	IDENTIFIED	13.16	☑ UI	
Cerium-143		**53130**	8329	pCi/g	**0**	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	LA	**0.1022**	0.03685	pCi/g	**0.09551**	**0.100**	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	**0.521**	0.04537	pCi/g	**0.06714**	**0.100**	660.9	2	1.664	IDENTIFIED	8.321	☐	
Gross Gamma		**9.581**	1.333	pCi/g	**3.104**	N		0				☐	
Lead-212	✓	**1.656**	0.08519	pCi/g	**0.1095**	**0.100**	238.3	2	1.137	IDENTIFIED	3.648	☐	
Lead-214	✓	**1.522**	0.1076	pCi/g	**0.1335**	**0.100**	351.4	2	1.22	IDENTIFIED	5.634	☐	
Molybdenum-99	HE	**58.61**	44.18	pCi/g	**0**	N	0	7	0	SHORT_HLIF	0	☐	
Neptunium-237	MU	**1.272**	0.2227	pCi/g	**0.3991**	N	86.97	3	1.321	IDENTIFIED	13.16	☐	
Niobium-95m	LA	**0.6514**	0.106	pCi/g	**0.3451**	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	**26.12**	1.314	pCi/g	**0.6104**	**1.00**	1459	1	2.184	IDENTIFIED	3.362	☐	
Promethium-149	HE	**206.7**	513.2	pCi/g	**0**	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224	INT	**4.331**	0.5972	pCi/g	**1.173**	Y	241.3	1	1.635	IDENTIFIED	13.5	☑ UI	
Radium-226	✓	**1.3**	0.1094	pCi/g	**0.1346**	Y	608.6	2	1.377	IDENTIFIED	7.513	☐	
Radium-228	✓	**1.667**	0.2423	pCi/g	**0.2666**	**0.500**	910.1	3	1.705	IDENTIFIED	13.27	☐	
Silver-110m	HE	**0.1486**	0.02727	pCi/g	**0.09601**	N	0	7	0	NOT_IDENTI	0	☐	
Thallium-208	✓	**0.583**	0.04976	pCi/g	**0.07212**	**0.080**	582.5	1	1.525	IDENTIFIED	7.896	☐	
Thorium-228	MU	**1.656**	0.08519	pCi/g	**0.1095**	N	238.3	2	1.137	IDENTIFIED	3.648	☐	
Thorium-232	MU	**1.667**	0.2423	pCi/g	**0.2666**	N	910.1	3	1.705	IDENTIFIED	13.27	☐	
Tin-126	MU	**0.4263**	0.05978	pCi/g	**0.1318**	N	86.97	3	1.321	IDENTIFIED	13.16	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521004	25-FEB-10 12:00	19-MAR-10 23:11	22.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	**1.921**	0.1973	pCi/g	**0.2417**	N	910.6	3	1.955	IDENTIFIED	8.073	☐	
Americium-241	LA	**0.107**	0.03193	pCi/g	**0.09709**	**0.200**	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Annihilation Rad.		**0.1944**	0.03885	pCi/g	**0.04491**	N	510.6	1	2.003	IDENTIFIED	19.73	☐	

Barium-137m	NL	**0.5812**	0.04555	pCi/g	**0.05471**	N	661.2	2	1.785	IDENTIFIED	7.113	☐	
Bismuth-211	INT	**4.587**	0.2853	pCi/g	**0.3044**	Y	351.4	2	1.394	IDENTIFIED	4.796	☑ UI	
Bismuth-212	LA	**2.305**	0.5307	pCi/g	**1.173**	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	**1.397**	0.0979	pCi/g	**0.1118**	**0.200**	608.7	2	1.532	IDENTIFIED	5.597	☐	
Cadmium-109	INT	**4.995**	0.4236	pCi/g	**0.9021**	Y	86.81	3	1.32	IDENTIFIED	7.574	☑ UI	
Cerium-143		**59290**	8200	pCi/g	**0**	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	LA	**0.1036**	0.03654	pCi/g	**0.09115**	**0.100**	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	NL	**0.4916**	0.1058	pCi/g	**0.2294**	N	269.6	1	1.523	IDENTIFIED	20.85	☐	
Cesium-137	✓	**0.614**	0.04814	pCi/g	**0.0578**	**0.100**	661.2	2	1.785	IDENTIFIED	7.113	☐	
Europium-155	HE	**0.2292**	0.06356	pCi/g	**0.1552**	N	104.9	1	1.287	IDENTIFIED	27.2	☐	
Gadolinium-153	HE	**0.1476**	0.03948	pCi/g	**0.1194**	N	0	9	0	NOT_IDENTI	0	☐	
Gross Gamma		**11.57**	1.313	pCi/g	**4.163**	N		0				☐	
Lead-210	✓	**2.163**	0.3999	pCi/g	**0.7808**	N	45.95	1	1.003	IDENTIFIED	18.09	☐	
Lead-212	✓	**2.011**	0.1201	pCi/g	**0.08495**	**0.100**	238.2	2	1.243	IDENTIFIED	2.528	☐	
Lead-214	✓	**1.665**	0.1133	pCi/g	**0.1124**	**0.100**	351.4	2	1.394	IDENTIFIED	4.796	☐	
Neptunium-237	NL	**1.441**	0.1943	pCi/g	**0.259**	N	86.81	3	1.32	IDENTIFIED	7.574	☐	
Niobium-95m	LA	**1.605**	0.1223	pCi/g	**0.3204**	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40	✓	**27.47**	1.129	pCi/g	**0.5061**	**1.00**	1460	1	1.872	IDENTIFIED	2.685	☐	
Promethium-149	HE	**309.3**	427.3	pCi/g	**0**	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224	INT	**6.031**	0.6936	pCi/g	**0.9106**	Y	241.3	1	2.031	IDENTIFIED	10.41	☑ UI	
Radium-226	✓	**1.397**	0.0979	pCi/g	**0.1118**	Y	608.7	2	1.532	IDENTIFIED	5.597	☐	
Radium-228	✓	**1.921**	0.1973	pCi/g	**0.2417**	**0.500**	910.6	3	1.955	IDENTIFIED	8.073	☐	
Silver-110m	HE	**0.1126**	0.02384	pCi/g	**0.076**	N	0	9	0	NOT_IDENTI	0	☐	
Strontium-85	LA	**0.07362**	0.02366	pCi/g	**0.07282**	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	**0.5884**	0.04538	pCi/g	**0.05938**	**0.080**	582.7	1	1.487	IDENTIFIED	6.782	☐	
Thorium-228	NL	**2.011**	0.1201	pCi/g	**0.08495**	N	238.2	2	1.243	IDENTIFIED	2.528	☐	
Thorium-232	NL	**1.921**	0.1973	pCi/g	**0.2417**	N	910.6	3	1.955	IDENTIFIED	8.073	☐	
Thorium-234	✓	**3.653**	0.5685	pCi/g	**0.9482**	**2.00**	62.75	2	1.245	IDENTIFIED	12.64	☐	
Tin-126	NL	**0.4829**	0.04095	pCi/g	**0.08708**	N	86.81	3	1.32	IDENTIFIED	7.574	☐	
Total Uranium		**10.976**	1.69E-06	ug/g	**1.4132**	N		0				☐	
Uranium-238	NL	**3.653**	0.5685	pCi/g	**0.9482**	N	62.75	2	1.245	IDENTIFIED	12.64	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521005	25-FEB-10 12:00	19-MAR-10 23:11	22.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NL	**1.827**	0.158	pCi/g	**0.1467**	N	911.8	3	1.608	IDENTIFIED	5.943	☐	
Annihilation Rad.		**0.178**	0.02592	pCi/g	**0.02889**	N	511.4	1	2.203	IDENTIFIED	13.8	☐	
Bismuth-211	INT	**4.719**	0.2768	pCi/g	**0.2043**	Y	352.1	2	1.288	IDENTIFIED	3.395	☑ UI	
Bismuth-212	LA	**2.139**	0.2886	pCi/g	**0.8238**	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	**1.493**	0.1014	pCi/g	**0.07108**	**0.200**	609.7	2	1.357	IDENTIFIED	3.865	☐	
Cadmium-109	INT	**3.733**	0.3586	pCi/g	**0.7644**	Y	87.36	3	1.168	IDENTIFIED	8.381	☑ UI	
Cerium-143		**20760**	3328	pCi/g	**0**	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	**0.1205**	0.02417	pCi/g	**0.06161**	**0.100**	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		**11.05**	1.186	pCi/g	**3.523**	N		0				☐	
Iodine-133	HE	**7.58E+05**	6.89E+05	pCi/g	**0**	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	**1.97**	0.1128	pCi/g	**0.0636**	**0.100**	238.7	2	1.148	IDENTIFIED	2.066	☐	

Lead-214 ✓	1.713	0.111	pCi/g	0.07429	0.100	352.1	2	1.288	IDENTIFIED	3.395	☐	
Molybdenum-99 HE	44.89	25.35	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Neptunium-237 MU	1.077	0.1531	pCi/g	0.2228	N	87.36	3	1.168	IDENTIFIED	8.381	☐	
Potassium-40 ✓	30.52	1.455	pCi/g	0.3585	1.00	1462	1	1.865	IDENTIFIED	1.924	☐	
Radium-224 INT	5.433	0.4916	pCi/g	0.6814	Y	241.7	1	1.79	IDENTIFIED	7.648	☑ UI	
Radium-226 ✓	1.493	0.1014	pCi/g	0.07108	Y	609.7	2	1.357	IDENTIFIED	3.865	☐	
Radium-228 ✓	1.827	0.158	pCi/g	0.1467	0.500	911.8	3	1.608	IDENTIFIED	5.943	☐	
Strontium-85 LA	0.09741	0.01466	pCi/g	0.05308	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	0.6278	0.04295	pCi/g	0.03523	0.080	583.5	1	1.422	IDENTIFIED	4.519	☐	
Thorium-228 MU	1.97	0.1128	pCi/g	0.0636	N	238.7	2	1.148	IDENTIFIED	2.066	☐	
Thorium-232 MU	1.827	0.158	pCi/g	0.1467	N	911.8	3	1.608	IDENTIFIED	5.943	☐	
Tin-126 MU	0.3609	0.03466	pCi/g	0.07411	N	87.36	3	1.168	IDENTIFIED	8.381	☐	
Total Uranium	3.4298	1.56E-06	ug/g	1.7911	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521006	25-FEB-10 12:00	19-MAR-10 23:12	22.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 MU	2.167	0.1798	pCi/g	0.1518	N	911.2	3	2.199	IDENTIFIED	4.79	☐	
Annihilation Rad.	0.1476	0.02705	pCi/g	0.03048	N	511	1	2.413	IDENTIFIED	17.64	☐	
Barium-137m MU	0.3588	0.029	pCi/g	0.04158	N	661.8	2	1.721	IDENTIFIED	6.126	☐	
Bismuth-211 INT	4.922	0.3307	pCi/g	0.235	Y	352	2	1.381	IDENTIFIED	3.366	☑ UI	
Bismuth-212 MU	2.099	0.328	pCi/g	0.5598	N	727.1	1	1.84	IDENTIFIED	13.96	☐	
Bismuth-214 ✓	1.572	0.1058	pCi/g	0.07538	0.200	609.4	2	1.706	IDENTIFIED	3.355	☐	
Cadmium-109 INT	5.066	0.4434	pCi/g	0.791	Y	87.29	3	1.306	IDENTIFIED	7.381	☑ UI	
Cerium-143	41880	6059	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.1063	0.02045	pCi/g	0.06082	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.2347	0.06888	pCi/g	0.2043	N	0	7	0	NOT_IDENTI	0	☐	
Cesium-137 ✓	0.379	0.03065	pCi/g	0.04393	0.100	661.8	2	1.721	IDENTIFIED	6.126	☐	
Europium-155 HE	0.1471	0.04297	pCi/g	0.1246	N	105.6	1	1.708	IDENTIFIED	28.9	☐	
Gross Gamma	12.28	1.195	pCi/g	2.625	N		0				☐	
Lead-212 ✓	2.177	0.1501	pCi/g	0.06912	0.100	238.7	2	1.188	IDENTIFIED	1.901	☐	
Lead-214 ✓	1.786	0.1297	pCi/g	0.08543	0.100	352	2	1.381	IDENTIFIED	3.366	☐	
Molybdenum-99 HE	48.14	26.28	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Neptunium-237 MU	1.461	0.1996	pCi/g	0.2315	N	87.29	3	1.306	IDENTIFIED	7.381	☐	
Niobium-95 HE	0.08611	0.01898	pCi/g	0.05798	N	0	7	0	NOT_IDENTI	0	☐	
Niobium-95m HE	0.2421	0.05889	pCi/g	0.1766	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	32.2	1.572	pCi/g	0.3487	1.00	1461	1	2.688	IDENTIFIED	1.684	☐	
Radium-224 INT	5.22	0.5364	pCi/g	0.74	Y	241.7	1	1.674	IDENTIFIED	8.138	☑ UI	
Radium-226 ✓	1.572	0.1058	pCi/g	0.07538	Y	609.4	2	1.706	IDENTIFIED	3.355	☐	
Radium-228 ✓	2.167	0.1798	pCi/g	0.1518	0.500	911.2	3	2.199	IDENTIFIED	4.79	☐	
Strontium-85 LA	0.1787	0.01907	pCi/g	0.05842	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	0.6325	0.04379	pCi/g	0.03833	0.080	583.2	1	1.576	IDENTIFIED	4.312	☐	
Thorium-228 MU	2.177	0.1501	pCi/g	0.06912	N	238.7	2	1.188	IDENTIFIED	1.901	☐	
Thorium-232 MU	2.167	0.1798	pCi/g	0.1518	N	911.2	3	2.199	IDENTIFIED	4.79	☐	
Thorium-234 ✓	3.229	0.8001	pCi/g	1.448	2.00	63.17	2	0.9484	IDENTIFIED	23.13	☐	
Tin-126 MU	0.4897	0.04286	pCi/g	0.07678	N	87.29	3	1.306	IDENTIFIED	7.381	☐	

Total Uranium		9.6309	2.38E-06	ug/g	2.1565	N		0				☐
Uranium-238	MU	3.229	0.8001	pCi/g	1.448	N	63.17	2	0.9484	IDENTIFIED	23.13	☐

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521007	25-FEB-10 12:00	19-MAR-10 23:12	22.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MU	1.977	0.2154	pCi/g	0.2093	N	910.3	3	1.527	IDENTIFIED	9.137	☐	
Annihilation Rad.		0.1673	0.04281	pCi/g	0.05096	N	510.2	1	2.064	IDENTIFIED	25.41	☐	
Barium-137m	MU	1.951	0.07746	pCi/g	0.06504	N	660.8	2	1.476	IDENTIFIED	3.037	☐	
Bismuth-211	INT	4.632	0.2763	pCi/g	0.3451	Y	351.5	2	1.315	IDENTIFIED	4.996	☑ UI	
Bismuth-212	LA	2.017	0.4434	pCi/g	1.127	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.645	0.1057	pCi/g	0.1177	0.200	608.5	2	1.39	IDENTIFIED	5.191	☐	
Cadmium-109	INT	4.777	0.5164	pCi/g	1.282	Y	87.01	3	1.015	IDENTIFIED	9.664	☑ UI	
Cerium-143		64820	8633	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.4062	0.09846	pCi/g	0.2964	N	0	7	0	NOT_IDENTI	0	☐	
Cesium-137	✓	2.061	0.08201	pCi/g	0.06871	0.100	660.8	2	1.476	IDENTIFIED	3.037	☐	
Gross Gamma		12.15	1.386	pCi/g	3.352	N		0				☐	
Lead-212	✓	2.044	0.09296	pCi/g	0.09473	0.100	238.3	2	1.149	IDENTIFIED	2.744	☐	
Lead-214	✓	1.681	0.1105	pCi/g	0.1291	0.100	351.5	2	1.315	IDENTIFIED	4.996	☐	
Molybdenum-99	HE	18.3	39.34	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Neptunium-237	MU	1.378	0.2075	pCi/g	0.3776	N	87.01	3	1.015	IDENTIFIED	9.664	☐	
Niobium-95m	LA	0.9483	0.09864	pCi/g	0.3055	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	26.82	1.308	pCi/g	0.5841	1.00	1459	1	2.091	IDENTIFIED	3.13	☐	
Radium-224	INT	5.83	0.6703	pCi/g	1.015	Y	241.3	1	1.861	IDENTIFIED	11.15	☑ UI	
Radium-226	✓	1.645	0.1057	pCi/g	0.1177	Y	608.5	2	1.39	IDENTIFIED	5.191	☐	
Radium-228	✓	1.977	0.2154	pCi/g	0.2093	0.500	910.3	3	1.527	IDENTIFIED	9.137	☐	
Silver-110m	LA	0.5118	0.03556	pCi/g	0.1253	N	0	7	0	NOT_IDENTI	0	☐	
Sodium-24	HE	1.74E+09	1.39E+09	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6406	0.0475	pCi/g	0.05843	0.080	582.5	1	1.409	IDENTIFIED	6.671	☐	
Thorium-228	MU	2.044	0.09296	pCi/g	0.09473	N	238.3	2	1.149	IDENTIFIED	2.744	☐	
Thorium-232	MU	1.977	0.2154	pCi/g	0.2093	N	910.3	3	1.527	IDENTIFIED	9.137	☐	
Thorium-234	✓	2.65	1.089	pCi/g	2.582	2.00	63.2	2	0.9613	IDENTIFIED	40.07	☐	
Tin-126	MU	0.4618	0.04992	pCi/g	0.1246	N	87.01	3	1.015	IDENTIFIED	9.664	☐	
Total Uranium		7.9582	3.24E-06	ug/g	3.8431	N		0				☐	
Uranium-238	HE	2.65	1.089	pCi/g	2.582	N	63.2	2	0.9613	IDENTIFIED	40.07	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521008	25-FEB-10 12:00	19-MAR-10 23:14	22.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MU	1.675	0.1806	pCi/g	0.1791	N	911.3	3	1.594	IDENTIFIED	8.931	☐	
Annihilation Rad.		0.15	0.03425	pCi/g	0.03717	N	511.2	1	2.022	IDENTIFIED	22.43	☐	
Barium-137m	MU	0.5489	0.03648	pCi/g	0.05592	N	661.8	2	1.414	IDENTIFIED	5.272	☐	
Bismuth-211	INT	4.385	0.2767	pCi/g	0.2858	Y	352.1	2	1.298	IDENTIFIED	4.225	☑ UI	
Bismuth-212	LA	1.887	0.3782	pCi/g	0.9763	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.463	0.09931	pCi/g	0.095	0.200	609.5	2	1.555	IDENTIFIED	4.631	☐	

Cadmium-109	INT	4.177	0.4924	pCi/g	0.9226	Y	87.21	3	1.265	IDENTIFIED	10.42	☑ UI	
Cadmium-115	HE	76.11	44.67	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143		24530	4160	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1038	0.02592	pCi/g	0.08073	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.5799	0.03857	pCi/g	0.05907	0.100	661.8	2	1.414	IDENTIFIED	5.272	☐	
Gross Gamma		10.53	1.386	pCi/g	3.507	N		0				☐	
Iodine-135		9.22E+22	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.62	0.09896	pCi/g	0.09645	0.100	238.7	2	1.135	IDENTIFIED	3.311	☐	
Lead-214	✓	1.591	0.1096	pCi/g	0.1071	0.100	352.1	2	1.298	IDENTIFIED	4.225	☐	
Neptunium-237	MU	1.205	0.1901	pCi/g	0.2709	N	87.21	3	1.265	IDENTIFIED	10.42	☐	
Potassium-40	✓	25.95	1.401	pCi/g	0.4777	1.00	1461	1	2.066	IDENTIFIED	2.63	☐	
Radium-224	INT	3.537	0.4052	pCi/g	1.155	Y	241.9	1	1.426	IDENTIFIED	10.49	☑ UI	
Radium-226	✓	1.463	0.09931	pCi/g	0.095	Y	609.5	2	1.555	IDENTIFIED	4.631	☐	
Radium-228	✓	1.675	0.1806	pCi/g	0.1791	0.500	911.3	3	1.594	IDENTIFIED	8.931	☐	
Strontium-85	LA	0.1142	0.01823	pCi/g	0.06779	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.531	0.04343	pCi/g	0.0505	0.080	583.3	1	1.53	IDENTIFIED	6.788	☐	
Thorium-228	MU	1.62	0.09896	pCi/g	0.09645	N	238.7	2	1.135	IDENTIFIED	3.311	☐	
Thorium-232	MU	1.675	0.1806	pCi/g	0.1791	N	911.3	3	1.594	IDENTIFIED	8.931	☐	
Tin-126	MU	0.4037	0.0476	pCi/g	0.08964	N	87.21	3	1.265	IDENTIFIED	10.42	☐	
Total Uranium		5.4946	2.21E-06	ug/g	2.7715	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521009	25-FEB-10 12:00	19-MAR-10 23:15	22.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.95	0.221	pCi/g	0.2257	N	910.7	3	1.394	IDENTIFIED	9.704	☐	
Annihilation Rad.		0.1408	0.03757	pCi/g	0.04847	N	510.8	1	1.384	IDENTIFIED	26.26	☐	
Barium-137m	MU	1.916	0.1196	pCi/g	0.06621	N	661.5	2	1.297	IDENTIFIED	2.913	☐	
Bismuth-211	INT	5.66	0.3482	pCi/g	0.2948	Y	351.8	2	1.084	IDENTIFIED	4.185	☑ UI	
Bismuth-212	LA	3.053	0.4943	pCi/g	1.315	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.75	0.1434	pCi/g	0.1119	0.200	609.2	2	1.371	IDENTIFIED	5.654	☐	
Cadmium-109	INT	5.036	0.3852	pCi/g	0.5997	Y	87.22	3	0.998	IDENTIFIED	6.056	☑ UI	
Cerium-143		19720	3467	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1567	0.02712	pCi/g	0.1001	0.100	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2591	0.07092	pCi/g	0.2273	N	0	8	0	NOT_IDENTI	0	☐	
Cesium-137	✓	2.024	0.1265	pCi/g	0.06995	0.100	661.5	2	1.297	IDENTIFIED	2.913	☐	
Gross Gamma		14.04	1.412	pCi/g	3.858	N		0				☐	
Iodine-133	HE	1.59E+06	1.18E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-210	✓	4.249	0.3612	pCi/g	0.5287	N	46.57	1	0.6929	IDENTIFIED	7.065	☐	
Lead-212	✓	2.22	0.1222	pCi/g	0.0783	0.100	238.5	2	0.8572	IDENTIFIED	2.309	☐	
Lead-214	✓	2.054	0.1385	pCi/g	0.1073	0.100	351.8	2	1.084	IDENTIFIED	4.185	☐	
Neptunium-237	MU	1.453	0.1885	pCi/g	0.172	N	87.22	3	0.998	IDENTIFIED	6.056	☐	
Potassium-40	✓	31.66	1.629	pCi/g	0.615	1.00	1460	1	1.976	IDENTIFIED	2.871	☐	
Radium-224	INT	6.999	0.7294	pCi/g	0.8416	Y	241.5	1	1.828	IDENTIFIED	9.426	☑ UI	
Radium-226	✓	1.75	0.1434	pCi/g	0.1119	Y	609.2	2	1.371	IDENTIFIED	5.654	☐	
Radium-228	✓	1.95	0.221	pCi/g	0.2257	0.500	910.7	3	1.394	IDENTIFIED	9.704	☐	
Sodium-24	HE	3.78E+07	1.41E+09	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

Strontium-85 LA	0.07993	0.02168	pCi/g	0.07145	Y	0	8	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	4.60E+24	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208 ✓	0.6997	0.05641	pCi/g	0.05521	0.080	583	1	1.173	IDENTIFIED	5.949	☐		
Thorium-228 MU	2.22	0.1222	pCi/g	0.0783	N	238.5	2	0.8572	IDENTIFIED	2.309	☐		
Thorium-232 MU	1.95	0.221	pCi/g	0.2257	N	910.7	3	1.394	IDENTIFIED	9.704	☐		
Thorium-234 ✓	3.386	0.4538	pCi/g	0.6663	2.00	63.33	2	0.9187	IDENTIFIED	9.91	☐		
Tin-126 MU	0.4868	0.03724	pCi/g	0.05787	N	87.22	3	0.998	IDENTIFIED	6.056	☐		
Total Uranium	10.087	1.35E-06	ug/g	0.99335	N		0				☐		
Uranium-238 MU	3.386	0.4538	pCi/g	0.6663	N	63.33	2	0.9187	IDENTIFIED	9.91	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521010	25-FEB-10 12:00	20-MAR-10 11:10	23	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 MU		2.076	0.2232	pCi/g	0.3223	N	910.5	3	1.982	IDENTIFIED	8.675	☐	
Annihilation Rad.	HE	0.1066	0.04122	pCi/g	0.05843	N	510.3	1	1.581	IDENTIFIED	38.54	☐	
Barium-137m MU		0.7057	0.05184	pCi/g	0.07988	N	661.1	2	1.559	IDENTIFIED	6.57	☐	
Bismuth-211 INT		4.287	0.3257	pCi/g	0.4195	Y	351.6	2	1.398	IDENTIFIED	6.489	☑ UF	
Bismuth-212	HE	2.062	0.5509	pCi/g	1.483	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.43	0.1175	pCi/g	0.1466	0.200	608.8	2	1.271	IDENTIFIED	7.047	☐	
Cadmium-109 INT		3.442	0.4885	pCi/g	1.274	Y	86.76	3	1.229	IDENTIFIED	13.67	☑ UI	
Cerium-143		80520	12500	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-137 ✓		0.7455	0.0548	pCi/g	0.08439	0.100	661.1	2	1.559	IDENTIFIED	6.57	☐	
Gross Gamma		10.5	1.578	pCi/g	4.676	N		0				☐	
Lead-210 ✓		3.274	0.509	pCi/g	0.9593	N	45.96	1	1.166	IDENTIFIED	15.06	☐	
Lead-212 ✓		1.904	0.1221	pCi/g	0.1208	0.100	238.3	2	1.233	IDENTIFIED	3.434	☐	
Lead-214 ✓		1.556	0.1258	pCi/g	0.1515	0.100	351.6	2	1.398	IDENTIFIED	6.489	☐	
Molybdenum-99	HE	77.02	54.61	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Neptunium-237 MU		0.9922	0.1751	pCi/g	0.4119	N	86.76	3	1.229	IDENTIFIED	13.67	☐	
Niobium-95m LA		1.374	0.1344	pCi/g	0.4162	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		25.45	1.262	pCi/g	0.6669	1.00	1460	1	2.064	IDENTIFIED	3.86	☐	
Promethium-149	HE	262.1	649.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT		4.668	0.7589	pCi/g	1.295	Y	241.3	1	1.846	IDENTIFIED	15.5	☑ UI	
Radium-226 ✓		1.43	0.1175	pCi/g	0.1466	Y	608.8	2	1.271	IDENTIFIED	7.047	☐	
Radium-228 ✓		2.076	0.2232	pCi/g	0.3223	0.500	910.5	3	1.982	IDENTIFIED	8.675	☐	
Silver-110m	HE	0.1696	0.03305	pCi/g	0.1115	N	0	7	0	NOT_IDENTI	0	☐	
Sodium-24	HE	4.53E+09	3.11E+09	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.5144	0.05183	pCi/g	0.06734	0.080	582.9	1	1.723	IDENTIFIED	9.383	☐	
Thorium-228 MU		1.904	0.1221	pCi/g	0.1208	N	238.3	2	1.233	IDENTIFIED	3.434	☐	
Thorium-232 MU		2.076	0.2232	pCi/g	0.3223	N	910.5	3	1.982	IDENTIFIED	8.675	☐	
Thorium-234 ✓		1.743	0.6294	pCi/g	1.245	2.00	63.09	2	1.125	IDENTIFIED	34.96	☐	
Tin-126 MU		0.3325	0.04719	pCi/g	0.1229	N	86.76	3	1.229	IDENTIFIED	13.67	☐	
Total Uranium		5.1884	1.87E-06	ug/g	1.8557	N		0				☐	
Uranium-238	HE	1.743	0.6294	pCi/g	1.245	N	63.09	2	1.125	IDENTIFIED	34.96	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248521011	25-FEB-10 12:00	20-MAR-10 11:10	23	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 LW	1.711	0.216	pCi/g	0.2763	N	911.5	3	1.175	IDENTIFIED	11.08	☐	
Annihilation Rad. HE	0.1023	0.04065	pCi/g	0.06058	N	510.9	1	1.617	IDENTIFIED	39.49	☐	
Bismuth-211 INT	4.255	0.3395	pCi/g	0.3795	Y	352	2	1.157	IDENTIFIED	6.456	☑ UI	
Bismuth-212 LA	2.596	0.4984	pCi/g	1.452	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.369	0.1162	pCi/g	0.1327	0.200	609.3	2	1.412	IDENTIFIED	6.888	☐	
Cadmium-109 INT	2.148	0.6	pCi/g	1.421	Y	87.1	3	1.041	IDENTIFIED	27.38	☑ UI	
Cerium-143	34270	6473	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma	9.127	1.265	pCi/g	3.452	N		0				☐	
Iodine-133 HE	25810	1.67E+06	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212 ✓	1.915	0.1192	pCi/g	0.1051	0.100	238.7	2	1.216	IDENTIFIED	3.517	☐	
Lead-214 ✓	1.544	0.1304	pCi/g	0.138	0.100	352	2	1.157	IDENTIFIED	6.456	☐	
Neptunium-237 HE	0.6193	0.1847	pCi/g	0.4686	N	87.1	3	1.041	IDENTIFIED	27.38	☐	
Potassium-40 ✓	25.22	1.536	pCi/g	0.6358	1.00	1461	1	2.172	IDENTIFIED	3.859	☐	
Radium-224 INT	5.134	0.7034	pCi/g	1.127	Y	241.7	1	1.678	IDENTIFIED	12.91	☑ UI	
Radium-226 ✓	1.369	0.1162	pCi/g	0.1327	Y	609.3	2	1.412	IDENTIFIED	6.888	☐	
Radium-228 ✓	1.711	0.216	pCi/g	0.2763	0.500	911.5	3	1.175	IDENTIFIED	11.08	☐	
Strontium-85 LA	0.1084	0.02902	pCi/g	0.09834	Y	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	0.5851	0.05811	pCi/g	0.06641	0.080	583.3	1	1.6	IDENTIFIED	8.82	☐	
Thorium-228 NU	1.915	0.1192	pCi/g	0.1051	N	238.7	2	1.216	IDENTIFIED	3.517	☐	
Thorium-232 NU	1.711	0.216	pCi/g	0.2763	N	911.5	3	1.175	IDENTIFIED	11.08	☐	
Tin-126 HE	0.2075	0.05797	pCi/g	0.138	N	87.1	3	1.041	IDENTIFIED	27.38	☐	
Total Uranium	4.6975	2.43E-06	ug/g	4.242	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248526001	25-FEB-10 12:00	19-MAR-10 20:43	22.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 NU	2.387	0.2205	pCi/g	0.2442	N	911.1	3	1.655	IDENTIFIED	6.929	☐	
Annihilation Rad.	0.1527	0.03356	pCi/g	0.04431	N	510.9	1	1.311	IDENTIFIED	21.37	☐	
Bismuth-211 INT	4.708	0.3377	pCi/g	0.3446	Y	351.9	2	1.182	IDENTIFIED	4.877	☑ UI	
Bismuth-212 HE	1.825	0.4591	pCi/g	1.294	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.617	0.1275	pCi/g	0.1048	0.200	609.4	2	1.472	IDENTIFIED	5.057	☐	
Cadmium-109 INT	4.543	0.4458	pCi/g	0.7675	Y	87.26	3	1.16	IDENTIFIED	8.224	☑ UI	
Cerium-143	18600	3613	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.48	1.313	pCi/g	3.131	N		0				☐	
Iodine-133 HE	6.48E+05	1.00E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-210 ✓	1.651	0.3284	pCi/g	0.6164	N	46.41	1	0.9663	IDENTIFIED	19.22	☐	
Lead-212 ✓	2.145	0.1357	pCi/g	0.08657	0.100	238.6	2	0.9452	IDENTIFIED	2.721	☐	
Lead-214 ✓	1.709	0.1313	pCi/g	0.1254	0.100	351.9	2	1.182	IDENTIFIED	4.877	☐	
Molybdenum-99 HE	20.71	41.8	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Neptunium-237 NU	1.311	0.1882	pCi/g	0.2371	N	87.26	3	1.16	IDENTIFIED	8.224	☐	
Potassium-40 ✓	35.76	1.797	pCi/g	0.5575	1.00	1461	1	2.064	IDENTIFIED	2.668	☐	
Promethium-149 HE	152.1	421.7	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224 INT	4.759	0.7375	pCi/g	0.9289	Y	241.4	1	1.769	IDENTIFIED	14.58	☑ UI	
Radium-226 ✓	1.617	0.1275	pCi/g	0.1048	Y	609.4	2	1.472	IDENTIFIED	5.057	☐	

Radium-228	✓	2.387	0.2205	pCi/g	0.2442	0.500	911.1	3	1.655	IDENTIFIED	6.929	☐
Technetium-99m		1.31E+25	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.6515	0.05532	pCi/g	0.05534	0.080	583.2	1	1.307	IDENTIFIED	6.355	☐
Thorium-228	ML	2.145	0.1357	pCi/g	0.08657	N	238.6	2	0.9452	IDENTIFIED	2.721	☐
Thorium-232	ML	2.387	0.2205	pCi/g	0.2442	N	911.1	3	1.655	IDENTIFIED	6.929	☐
Thorium-234	✓	1.538	0.4724	pCi/g	0.811	2.00	63.48	2	0.8933	IDENTIFIED	29.2	☐
Tin-126	ML	0.4393	0.04311	pCi/g	0.07406	N	87.26	3	1.16	IDENTIFIED	8.224	☐
Total Uranium		4.5652	1.41E-06	ug/g	1.2089	N		0				☐
Uranium-238	HE	1.538	0.4724	pCi/g	0.811	N	63.48	2	0.8933	IDENTIFIED	29.2	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202061469		20-MAR-10 11:11	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-135	HE	2.11E+14	2.77E+14	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202061470	25-FEB-10 12:00	20-MAR-10 11:11	23	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	2.44	0.2357	pCi/g	0.2463	N	911.4	3	1.836	IDENTIFIED	7.218	☐	
Annihilation Rad.		0.1513	0.03866	pCi/g	0.04946	N	510.9	1	1.931	IDENTIFIED	25.18	☐	
Bismuth-211	INT	4.802	0.3187	pCi/g	0.3548	Y	351.9	2	1.289	IDENTIFIED	4.922	☑ UI	
Bismuth-212	ML	2.345	0.4383	pCi/g	1.327	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.51	0.1185	pCi/g	0.114	0.200	609.4	2	1.333	IDENTIFIED	5.888	☐	
Cadmium-109	INT	3.907	0.5889	pCi/g	1.293	Y	87.29	3	1.131	IDENTIFIED	14.33	☑ UI	
Cadmium-115	HE	50.96	68.49	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cerium-143		37560	6564	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Gross Gamma		11.85	1.665	pCi/g	4.182	N		0				☐	
Iodine-133	HE	8.59E+05	1.70E+06	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.976	0.1133	pCi/g	0.1011	0.100	238.7	2	1.077	IDENTIFIED	3.072	☐	
Lead-214	✓	1.743	0.1253	pCi/g	0.129	0.100	351.9	2	1.289	IDENTIFIED	4.922	☐	
Neptunium-237	ML	1.126	0.2068	pCi/g	0.3787	N	87.29	3	1.131	IDENTIFIED	14.33	☐	
Potassium-40	✓	36.53	1.928	pCi/g	0.4204	1.00	1461	1	2.025	IDENTIFIED	2.701	☐	
Promethium-149	HE	259.8	556.8	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Radium-224	INT	4.837	0.7097	pCi/g	1.084	Y	241.6	1	1.726	IDENTIFIED	14.04	☑ UI	
Radium-226	✓	1.51	0.1185	pCi/g	0.114	Y	609.4	2	1.333	IDENTIFIED	5.888	☐	
Radium-228	✓	2.44	0.2357	pCi/g	0.2463	0.500	911.4	3	1.836	IDENTIFIED	7.218	☐	
Thallium-208	✓	0.759	0.05396	pCi/g	0.05889	0.080	583.2	1	1.608	IDENTIFIED	5.284	☐	
Thorium-228	ML	1.976	0.1133	pCi/g	0.1011	N	238.7	2	1.077	IDENTIFIED	3.072	☐	
Thorium-232	ML	2.44	0.2357	pCi/g	0.2463	N	911.4	3	1.836	IDENTIFIED	7.218	☐	
Tin-126	ML	0.3774	0.05689	pCi/g	0.1255	N	87.29	3	1.131	IDENTIFIED	14.33	☐	
Total Uranium		5.5535	3.04E-06	ug/g	3.5542	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202061471		20-MAR-10 11:12	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228		**1.111**	0.2752	pCi/g	**0.5166**	N	911.5	3	2.109	IDENTIFIED	23.97	☐	
Americium-241		**13.77**	0.6143	pCi/g	**0.4066**	**0.200**	59.65	1	1.107	IDENTIFIED	2.138	☐	
Barium-137m		**5.837**	0.3191	pCi/g	**0.08916**	N	662.1	2	1.531	IDENTIFIED	2.167	☐	
Bismuth-211		**2.426**	0.3402	pCi/g	**0.5728**	Y	352.1	2	1.203	IDENTIFIED	13.18	☐	
Bismuth-212	HE	**1.997**	0.5395	pCi/g	**1.655**	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214		**0.8831**	0.1309	pCi/g	**0.1951**	**0.200**	609.6	2	1.305	IDENTIFIED	13.73	☐	
Cadmium-109		**32.07**	1.942	pCi/g	**1.932**	Y	88.19	2	1.132	IDENTIFIED	3.79	☐	
Cerium-143		**442.3**	132.7	pCi/g	**0**	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137		**6.166**	0.3375	pCi/g	**0.09419**	**0.100**	662.1	2	1.531	IDENTIFIED	2.167	☐	
Cobalt-57		**0.1504**	0.02677	pCi/g	**0.06066**	N	122.2	1	1.1	IDENTIFIED	17.3	☐	
Cobalt-60		**6.106**	0.2979	pCi/g	**0.07525**	**0.100**	1333	1	1.736	IDENTIFIED	2.501	☐	
Gross Gamma		**27.06**	2.36	pCi/g	**3.804**	N		0				☐	
Iodine-133	HE	**498.1**	3094	pCi/g	**0**	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212		**0.9728**	0.09787	pCi/g	**0.1825**	**0.100**	238.6	2	1.052	IDENTIFIED	8.527	☐	
Lead-214		**0.8804**	0.1258	pCi/g	**0.1993**	**0.100**	352.1	2	1.203	IDENTIFIED	13.18	☐	
Neptunium-237		**3.39**	0.454	pCi/g	**0.9202**	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40		**1.158**	0.4351	pCi/g	**0.6965**	**1.00**	1462	1	1.231	IDENTIFIED	37.32	☐	
Radium-224		**4.19**	0.6582	pCi/g	**2.284**	Y	0	6	0	NOT_IDENTI	0	☐	
Radium-226		**0.8831**	0.1309	pCi/g	**0.1951**	Y	609.6	2	1.305	IDENTIFIED	13.73	☐	
Radium-228		**1.111**	0.2752	pCi/g	**0.5166**	**0.500**	911.5	3	2.109	IDENTIFIED	23.97	☐	
Technetium-99m	HE	**1.68E+15**	4.14E+15	pCi/g	**0**	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208		**0.2851**	0.06265	pCi/g	**0.1038**	**0.080**	583.8	1	1.43	IDENTIFIED	21.36	☐	
Thorium-228		**0.9728**	0.09787	pCi/g	**0.1825**	N	238.6	2	1.052	IDENTIFIED	8.527	☐	
Thorium-232		**1.111**	0.2752	pCi/g	**0.5166**	N	911.5	3	2.109	IDENTIFIED	23.97	☐	
Tin-126		**3.138**	0.19	pCi/g	**0.1896**	N	88.19	2	1.132	IDENTIFIED	3.79	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
961099	248526001	SAMPLE	19-MAR-10	Molybdenum-99	20.71	41.8	pCi/g	0	N
				Potassium-40	35.76	1.797	pCi/g	0.2789	1.00
				Promethium-149	152.1	421.7	pCi/g	0	N
				Radium-224	4.759	0.7375	pCi/g	0.4647	Y
				Radium-226	1.617	0.1275	pCi/g	0.05245	Y
				Radium-228	2.387	0.2205	pCi/g	0.1222	0.500
				Strontium-85	0.04462	0.02191	pCi/g	0.03467	Y
				Technetium-99m	1.31E+25	0	pCi/g	0	N
				Thallium-208	0.6515	0.05532	pCi/g	0.02768	0.080
				Thorium-234	1.538	0.4724	pCi/g	0.4057	2.00
				Yttrium-91	27.27	14.22	pCi/g	25.2	N
961099	1202061469	MB	20-MAR-10	Americium-241	0.04797	0.0212	pCi/g	0.04012	0.200
				Iodine-135	2.11E+14	2.77E+14	pCi/g	0	N
961099	1202061470	DUP	20-MAR-10	Bismuth-211	4.802	0.3187	pCi/g	0.1775	Y
				Bismuth-214	1.51	0.1185	pCi/g	0.05706	0.200
				Cadmium-109	3.907	0.5889	pCi/g	0.6471	Y
				Cadmium-115	50.96	68.49	pCi/g	0	N
				Cerium-143	37560	6564	pCi/g	0	N
				Cesium-134	0.08606	0.03105	pCi/g	0.05054	0.100
				Gross Gamma	11.85	1.665	pCi/g	2.033	N
				Iodine-133	8.59E+05	1.70E+06	pCi/g	0	N
				Lead-212	1.976	0.1133	pCi/g	0.0506	0.100
				Lead-214	1.743	0.1253	pCi/g	0.06456	0.100
				Mercury-203	0.0801	0.02563	pCi/g	0.04216	0.100
				Potassium-40	36.53	1.928	pCi/g	0.2103	1.00
				Promethium-149	259.8	556.8	pCi/g	0	N
				Radium-224	4.837	0.7097	pCi/g	0.5422	Y
				Radium-226	1.51	0.1185	pCi/g	0.05706	Y
				Radium-228	2.44	0.2357	pCi/g	0.1232	0.500
				Strontium-85	0.07766	0.02346	pCi/g	0.03981	Y
				Thallium-208	0.759	0.05396	pCi/g	0.02946	0.080
				Thorium-234	1.87	1.02	pCi/g	1.194	2.00
961099	1202061471	LCS	20-MAR-10	Americium-241	13.77	0.6143	pCi/g	0.2034	0.200
				Barium-137m	5.837	0.3191	pCi/g	0.04461	N
				Bismuth-211	2.426	0.3402	pCi/g	0.2866	Y
				Bismuth-214	0.8831	0.1309	pCi/g	0.09762	0.200
				Cadmium-109	32.07	1.942	pCi/g	0.9664	Y

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 22:42:43.17

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248517001.CNF;1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 20:41:36
Sample ID         : G248517001           Sample quantity  : 1.18570E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.68  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 961099                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.99*	124	536	1.14	125.10	120	10	1.72E-02	36.5	
2	3	75.04*	412	469	0.95	149.20	145	20	5.72E-02	9.6	1.12E+00
3	3	77.29	750	406	1.01	153.70	145	20	1.04E-01	5.7	
4	0	84.10*	119	376	1.64	167.30	164	7	1.65E-02	29.3	
5	0	87.21	270	470	1.21	173.52	171	7	3.76E-02	14.5	
6	2	90.15	122	279	1.05	179.41	177	12	1.70E-02	20.9	1.05E+00
7	2	93.00*	194	473	1.14	185.11	177	12	2.70E-02	21.1	
8	0	105.42	81	260	1.46	209.94	207	6	1.12E-02	33.6	
9	0	186.11*	254	382	1.17	371.26	367	10	3.53E-02	16.4	
10	0	209.27	204	337	1.09	417.56	413	10	2.84E-02	18.2	
11	3	238.66*	1662	244	1.17	476.32	471	16	2.31E-01	3.0	1.32E+00
12	3	241.67*	385	268	1.77	482.34	471	16	5.35E-02	10.3	
13	0	269.94*	172	228	1.54	538.86	533	11	2.39E-02	19.1	
14	0	277.28	61	215	1.35	553.54	550	8	8.42E-03	44.0	
15	3	295.22*	537	195	1.25	589.40	583	21	7.46E-02	6.3	1.79E+00
16	3	300.03	121	258	1.55	599.01	583	21	1.68E-02	24.8	
17	0	328.09	79	257	1.38	655.13	649	11	1.10E-02	41.0	
18	0	338.53*	356	312	1.13	676.00	669	14	4.94E-02	11.9	
19	0	351.84*	1044	214	1.38	702.61	697	12	1.45E-01	4.2	
20	0	463.08	112	138	1.62	925.03	919	12	1.56E-02	23.0	
21	0	510.53*	173	184	1.86	1019.89	1012	17	2.40E-02	22.3	
22	0	582.79*	574	124	1.41	1164.37	1156	16	7.98E-02	6.1	
23	0	608.80*	721	229	1.71	1216.39	1207	18	1.00E-01	6.3	
24	0	661.49	319	164	2.04	1321.73	1314	19	4.43E-02	11.1	
25	0	726.68	182	101	1.99	1452.09	1445	14	2.53E-02	13.9	
26	0	769.51	71	222	0.85	1537.72	1529	21	9.80E-03	54.5	
27	0	910.55*	427	135	1.56	1819.75	1811	18	5.93E-02	8.1	
28	0	968.91	151	242	1.37	1936.44	1926	16	2.10E-02	24.6	
29	0	1119.54	205	90	1.90	2237.66	2228	18	2.85E-02	12.9	
30	0	1237.25*	70	94	2.07	2473.04	2464	13	9.75E-03	31.3	
31	0	1376.53	64	43	2.46	2751.56	2742	19	8.96E-03	27.3	
32	0	1408.74	39	47	6.86	2815.97	2805	20	5.38E-03	47.3	
33	0	1459.59*	1819	54	2.24	2917.66	2906	22	2.53E-01	2.6	
34	0	1728.65	55	23	1.42	3455.76	3446	20	7.62E-03	26.0	
35	0	1763.58*	140	35	2.05	3525.61	3516	21	1.94E-02	14.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 22:42:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248517001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 20:41:36
Sample ID : G248517001 Sample quantity : 118.57 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.68 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.853E+01	2.617E+00	4.215E-01	3.198E-02	67.684
CD-109	+	88.03	*	3.718E+00	1.132E+00	1.227E+00	1.134E-01	3.031
SN-126	+	64.28		1.350E+00	1.006E+00	9.131E-01	1.350E-01	1.478
	+	86.94		1.494E+00	7.567E-01	4.738E-01	1.965E-01	3.154
	+	87.57	*	3.595E-01	1.095E-01	1.273E-01	1.173E-02	2.824
BA-137M	+	661.66	*	3.135E-01	7.350E-02	4.599E-02	3.506E-03	6.816
CS-137	+	661.66	*	3.312E-01	7.766E-02	4.859E-02	3.713E-03	6.816
EU-155	+	86.55		4.372E-01	1.333E-01	1.394E-01	1.284E-02	3.136
	+	105.31	*	1.582E-01	1.070E-01	1.631E-01	1.165E-02	0.970
TL-208	+	277.37		4.646E-01	4.120E-01	5.322E-01	5.709E-02	0.873
	+	583.19	*	5.435E-01	7.894E-02	4.481E-02	3.507E-03	12.129
		860.56		5.162E-01	2.810E-01	4.970E-01	5.559E-02	1.039
BI-211		72.87		5.293E+00	3.585E+00	5.623E+00	4.643E-01	0.941
	+	351.06	*	4.691E+00	4.989E-01	2.875E-01	1.846E-02	16.319
PB-212	+	74.82		2.567E+00	5.912E-01	5.965E-01	7.647E-02	4.304
	+	77.11		2.642E+00	3.753E-01	3.376E-01	2.861E-02	7.826
	+	238.63	*	1.776E+00	1.656E-01	8.339E-02	6.012E-03	21.302
	+	300.09		1.943E+00	9.790E-01	1.155E+00	9.647E-02	1.682
BI-214	+	609.32	*	1.315E+00	2.034E-01	9.348E-02	8.401E-03	14.071
	+	1120.29		1.862E+00	5.132E-01	3.587E-01	3.454E-02	5.190
	+	1764.49		1.705E+00	4.923E-01	2.949E-01	1.793E-02	5.781
PB-214	+	74.82		4.550E+00	1.016E+00	1.057E+00	1.218E-01	4.304
	+	77.11		4.657E+00	7.651E-01	5.951E-01	7.038E-02	7.826
	+	242.00		2.491E+00	5.500E-01	4.670E-01	3.754E-02	5.335
	+	295.22		1.528E+00	2.331E-01	2.045E-01	1.775E-02	7.472
	+	351.93	*	1.703E+00	2.040E-01	1.045E-01	8.848E-03	16.288
RA-224	+	240.99	*	4.405E+00	9.384E-01	8.927E-01	4.973E-02	4.934
RA-226	+	609.32	*	1.315E+00	2.034E-01	9.348E-02	8.401E-03	14.071
	+	1120.29		1.862E+00	5.132E-01	3.587E-01	3.454E-02	5.190
	+	1764.49		1.705E+00	4.923E-01	2.949E-01	1.793E-02	5.781
AC-228	+	338.32		1.792E+00	8.530E-01	3.298E-01	1.360E-01	5.432
	+	911.20	*	1.884E+00	3.991E-01	1.980E-01	2.682E-02	9.517
	+	968.97		1.148E+00	6.336E-01	3.327E-01	8.298E-02	3.452
RA-228	+	338.32		1.792E+00	8.530E-01	3.298E-01	1.360E-01	5.432

Sample ID : G248517001 Acquisition date : 19-MAR-2010 20:41:36

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.20	*	1.884E+00	3.991E-01	1.980E-01	2.682E-02	9.517
	+	968.97		1.148E+00	6.336E-01	3.327E-01	8.298E-02	3.452
TH-228	+	74.82		2.567E+00	5.367E-01	5.965E-01	5.030E-02	4.304
	+	77.11		2.642E+00	3.753E-01	3.376E-01	2.861E-02	7.826
	+	238.63	*	1.776E+00	1.656E-01	8.339E-02	6.012E-03	21.302
	+	300.09		1.943E+00	1.527E+00	1.155E+00	7.032E-01	1.682
TH-229	+	85.43		4.188E-01	2.487E-01	2.935E-01	2.653E-02	1.427
	+	88.47		5.542E-01	1.688E-01	1.818E-01	1.665E-02	3.049
		193.51	*	-2.395E-01	4.674E-01	7.659E-01	4.100E-02	-0.313
		210.85		2.130E+00	8.973E-01	1.458E+00	7.928E-02	1.460
TH-232	+	338.32		1.792E+00	4.392E-01	3.298E-01	1.908E-02	5.432
	+	911.20	*	1.884E+00	3.991E-01	1.980E-01	2.682E-02	9.517
	+	968.97		1.148E+00	6.336E-01	3.327E-01	8.298E-02	3.452
TH-234	+	63.29	*	3.502E+00	2.635E+00	2.269E+00	4.086E-01	1.544
	+	92.59		2.090E+00	9.959E-01	9.977E-01	2.197E-01	2.095
U-235	+	89.96		1.659E+00	8.068E-01	1.233E+00	3.048E-01	1.345
	+	93.35		1.579E+00	7.598E-01	6.900E-01	1.587E-01	2.288
		143.76	*	-8.632E-02	2.022E-01	3.122E-01	4.868E-02	-0.277
		163.33		1.202E-01	3.807E-01	6.502E-01	1.080E-01	0.185
	+	185.72		1.839E-01	6.102E-02	5.982E-02	3.182E-03	3.074
		205.31		-2.033E-01	4.818E-01	6.877E-01	1.159E-01	-0.296
NP-237	+	86.48	*	1.073E+00	3.966E-01	3.424E-01	7.829E-02	3.133
		95.86		-2.366E-01	9.793E-01	1.404E+00	3.339E-01	-0.168
U-238	+	63.29	*	3.502E+00	2.635E+00	2.269E+00	4.086E-01	1.544
	+	92.59		2.090E+00	9.007E-01	9.977E-01	8.448E-02	2.095
ANH-511	+	511.00	*	1.270E-01	5.733E-02	4.062E-02	2.683E-03	3.127

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.677E-02	3.062E-01	5.104E-01	3.697E-02	0.111
NA-22		1274.54	*	-2.752E-02	4.161E-02	6.482E-02	4.411E-03	-0.425
NA-24		1368.63	*	-5.495E+02	4.161E-02	Half-Life too short		
SC-46		889.28	*	-2.885E-02	3.757E-02	5.761E-02	6.426E-03	-0.501
	+	1120.55		3.343E-01	8.941E-02	1.211E-01	8.365E-03	2.761
V-48		944.13		-8.004E-01	1.026E+00	1.554E+00	1.645E-01	-0.515
		983.53	*	3.729E-02	8.373E-02	1.403E-01	1.387E-02	0.266
		1312.11		-7.831E-02	9.596E-02	1.451E-01	1.057E-02	-0.540
CR-51		320.08	*	3.951E-02	4.020E-01	6.507E-01	4.183E-02	0.061
MN-54		834.85	*	-1.574E-02	3.278E-02	5.203E-02	5.329E-03	-0.303
CO-56		846.77	*	3.502E-03	3.461E-02	5.725E-02	5.977E-03	0.061
		1037.84		1.049E-01	2.856E-01	4.901E-01	4.536E-02	0.214
	+	1238.28		1.890E-01	1.189E-01	1.638E-01	1.092E-02	1.154
		1771.35		2.712E-01	2.056E-01	3.704E-01	2.239E-02	0.732
CO-57		122.06	*	6.888E-03	2.443E-02	3.967E-02	2.350E-03	0.174
		136.47		7.147E-02	1.976E-01	3.195E-01	2.087E-02	0.224
CO-58		810.76	*	-3.975E-02	3.717E-02	5.620E-02	5.548E-03	-0.707
FE-59		1099.45	*	-3.171E-02	9.252E-02	1.503E-01	1.237E-02	-0.211

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.59		4.676E-02	1.215E-01	2.055E-01	1.727E-02	0.228
CO-60		1173.23		1.782E-02	3.671E-02	6.293E-02	3.478E-03	0.283
		1332.49	*	-6.754E-03	3.296E-02	5.279E-02	3.989E-03	-0.128
ZN-65		1115.54	*	1.040E-01	9.514E-02	1.491E-01	1.050E-02	0.698
SE-75		121.12		2.982E-03	1.282E-01	2.060E-01	1.890E-02	0.014
		136.00		5.742E-03	3.925E-02	6.291E-02	3.584E-03	0.091
		264.66	*	1.148E-02	4.455E-02	6.493E-02	3.715E-03	0.177
		279.54		3.158E-02	1.157E-01	1.678E-01	1.038E-02	0.188
		400.66		-9.075E-02	2.396E-01	3.932E-01	3.569E-02	-0.231
SR-85		514.00	*	1.104E-01	4.009E-02	6.775E-02	4.489E-03	1.630
Y-88		898.04		-2.358E-02	3.976E-02	6.195E-02	7.022E-03	-0.381
		1836.06	*	2.893E-02	3.317E-02	6.036E-02	3.438E-03	0.479
Y-91		1204.77	*	-2.186E+01	2.097E+01	3.201E+01	1.892E+00	-0.683
NB-94		702.65	*	3.291E-04	3.084E-02	5.151E-02	4.226E-03	0.006
		871.09		7.906E-03	2.892E-02	4.832E-02	5.241E-03	0.164
NB-95		765.81	*	1.048E-01	4.923E-02	8.075E-02	7.386E-03	1.297
NB-95M		235.69	*	6.974E-02	1.357E-01	2.018E-01	1.486E-02	0.346
ZR-95		724.19		2.643E-01	1.112E-01	1.839E-01	1.702E-02	1.437
		756.73	*	-1.878E-02	6.530E-02	1.061E-01	1.048E-02	-0.177
MO-99		140.51		-9.895E-06	6.530E-02	Half-Life too short		
		181.07		1.142E-05	6.530E-02	Half-Life too short		
		366.42		-5.325E-05	6.530E-02	Half-Life too short		
		739.50	*	1.094E-05	6.530E-02	Half-Life too short		
		777.92		-1.684E-04	6.530E-02	Half-Life too short		
TC-99M		140.51	*	-1.357E+18	6.530E-02	Half-Life too short		
RU-103		497.08	*	-2.474E-02	3.919E-02	6.170E-02	7.880E-03	-0.401
		610.33		1.481E+01	2.720E+00	2.902E+00	4.551E-01	5.102
RH-106		621.93	*	2.211E-01	2.774E-01	4.689E-01	5.849E-02	0.471
		1050.41		4.598E-01	2.249E+00	3.814E+00	3.259E-01	0.121
RU-106		621.93	*	2.211E-01	2.765E-01	4.689E-01	3.451E-02	0.471
		1050.41		4.598E-01	2.249E+00	3.814E+00	3.259E-01	0.121
AG-108M		433.94	*	-9.688E-03	2.494E-02	4.053E-02	2.613E-03	-0.239
		614.28		-1.316E-03	3.527E-02	4.889E-02	3.735E-03	-0.027
		722.91		-1.054E-02	3.817E-02	5.336E-02	4.686E-03	-0.197
AG-110M		657.76	*	4.506E-02	3.481E-02	5.575E-02	4.397E-03	0.808
		677.62		1.667E-01	2.466E-01	4.309E-01	3.498E-02	0.387
		706.68		1.079E-01	1.990E-01	3.419E-01	2.913E-02	0.316
		763.94		1.978E-01	1.591E-01	2.513E-01	2.347E-02	0.787
		884.68		3.928E-02	4.198E-02	7.320E-02	8.266E-03	0.537
		937.49		-1.471E-01	1.052E-01	1.505E-01	1.648E-02	-0.977
		1384.29		6.822E-02	1.490E-01	2.216E-01	1.715E-02	0.308
		1505.03		5.726E-02	2.606E-01	4.444E-01	3.189E-02	0.129
SN-113		391.69	*	-1.276E-02	3.925E-02	6.466E-02	3.966E-03	-0.197
CD-115		260.90		1.737E-04	3.925E-02	Half-Life too short		
		492.35		2.955E-05	3.925E-02	Half-Life too short		
		527.90	*	-4.320E-05	3.925E-02	Half-Life too short		
SN-117M		156.02		2.101E+00	2.977E+00	5.167E+00	2.760E-01	0.407
		158.56	*	-2.475E-02	7.293E-02	1.196E-01	6.355E-03	-0.207
TE-123M		159.00	*	-3.548E-03	2.691E-02	4.441E-02	2.396E-03	-0.080

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		602.73		-7.108E-02	4.763E-02	5.681E-02	4.109E-03	-1.251
		645.85		-1.920E-01	4.750E-01	7.408E-01	5.987E-02	-0.259
		722.78		-1.476E-01	4.150E-01	5.758E-01	5.009E-02	-0.256
		1690.97	*	1.030E-02	6.673E-02	1.127E-01	7.804E-03	0.091
SB-125		427.87	*	1.549E-02	7.782E-02	1.309E-01	8.170E-03	0.118
	+	463.37		7.416E-01	3.453E-01	4.575E-01	3.264E-02	1.621
		600.60		-1.829E-01	2.023E-01	2.570E-01	2.048E-02	-0.712
		635.95		7.963E-02	2.344E-01	3.860E-01	3.185E-02	0.206
TE-125M		109.28	*	9.214E+00	1.156E+01	1.732E+01	1.558E+00	0.532
I-126		388.63		5.633E-02	2.133E-01	3.623E-01	2.083E-02	0.155
		666.33	*	2.426E-01	2.984E-01	4.632E-01	3.561E-02	0.524
		753.82		1.742E+00	2.175E+00	3.795E+00	3.402E-01	0.459
SB-126		414.70		1.242E-02	9.876E-02	1.658E-01	9.808E-03	0.075
		666.50		8.691E-02	1.045E-01	1.624E-01	1.249E-02	0.535
		695.00		-4.271E-02	1.026E-01	1.671E-01	1.353E-02	-0.256
		697.00		-2.047E-02	3.588E-01	5.973E-01	4.852E-02	-0.034
		720.70	*	-5.018E-02	2.161E-01	3.033E-01	2.568E-02	-0.165
		856.80		3.462E-01	6.813E-01	1.152E+00	1.221E-01	0.301
SB-127		252.40		-1.321E+00	1.365E+01	2.228E+01	9.298E+00	-0.059
		473.00		-3.999E+00	4.965E+00	7.732E+00	1.061E+00	-0.517
		685.70	*	-3.336E-01	4.015E+00	6.680E+00	8.909E-01	-0.050
		783.70		1.323E+01	1.160E+01	2.016E+01	3.035E+00	0.656
I-131		80.19		-8.212E+00	9.412E+00	1.324E+01	1.163E+00	-0.620
		284.31		-5.956E-01	2.463E+00	3.956E+00	2.551E-01	-0.151
		364.49	*	1.220E-01	1.703E-01	2.975E-01	1.945E-02	0.410
		636.99		1.298E+00	2.551E+00	4.246E+00	3.437E-01	0.306
TE-132		49.72		-1.438E+02	1.237E+02	1.969E+02	2.512E+01	-0.731
		111.76		-4.833E+01	1.574E+02	2.507E+02	3.017E+01	-0.193
		116.30		5.704E+01	1.305E+02	2.136E+02	2.537E+01	0.267
		228.16	*	-3.818E-01	3.136E+00	5.156E+00	8.342E-01	-0.074
BA-133		81.00		-1.194E-01	1.038E-01	1.417E-01	2.207E-02	-0.842
	+	276.40		4.300E-01	3.823E-01	5.695E-01	7.142E-02	0.755
		302.85		1.136E-01	1.413E-01	2.099E-01	2.389E-02	0.541
		356.01	*	2.868E-02	4.077E-02	5.977E-02	6.735E-03	0.480
		383.85		-2.438E-02	2.549E-01	4.258E-01	4.530E-02	-0.057
I-133		529.87	*	-2.289E+00	2.549E-01	Half-Life too short		
		875.33		-1.011E+00	2.549E-01	Half-Life too short		
		1298.22		-4.078E+01	2.549E-01	Half-Life too short		
CS-134		563.25		-9.085E-02	3.097E-01	4.939E-01	3.490E-02	-0.184
		569.33		4.716E-02	1.732E-01	2.819E-01	2.016E-02	0.167
		604.72		3.425E-02	3.473E-02	5.234E-02	3.806E-03	0.654
		795.86	*	5.378E-02	4.228E-02	7.469E-02	7.224E-03	0.720
		801.95		-1.091E-01	3.772E-01	6.063E-01	5.915E-02	-0.180
		1365.19		-4.994E-01	1.102E+00	1.630E+00	1.298E-01	-0.306
CS-135		268.22	*	2.217E-01	1.541E-01	2.393E-01	1.809E-02	0.926
I-135		546.56		7.607E+17	1.541E-01	Half-Life too short		
		836.80		2.532E+18	1.541E-01	Half-Life too short		
		1038.76		-1.277E+17	1.541E-01	Half-Life too short		
		1131.51		-7.156E+16	1.541E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1260.41	*	-2.482E+17	1.541E-01	Half-Life too short		
		1457.56		1.326E+20	1.541E-01	Half-Life too short		
		1678.03		6.632E+17	1.541E-01	Half-Life too short		
		1791.20		1.722E+17	1.541E-01	Half-Life too short		
CS-136		153.25		5.261E-02	1.134E+00	1.928E+00	1.495E-01	0.027
		176.60		-3.728E-02	6.525E-01	1.095E+00	7.281E-02	-0.034
		273.65		5.787E-03	1.005E+00	1.033E+00	6.973E-02	0.006
		340.55		8.669E-01	2.436E-01	4.034E-01	2.531E-02	2.149
		818.51		4.721E-02	9.198E-02	1.569E-01	1.568E-02	0.301
		1048.07	*	-8.644E-02	1.344E-01	2.137E-01	1.917E-02	-0.404
		1235.36		1.430E+00	8.380E-01	1.489E+00	1.517E-01	0.960
CE-139		165.86	*	1.052E-02	2.677E-02	4.587E-02	2.408E-03	0.229
BA-140		162.66		1.771E-01	1.050E+00	1.787E+00	1.104E-01	0.099
		304.85		3.325E-01	1.974E+00	2.819E+00	8.051E-01	0.118
		423.72		-1.515E+00	2.431E+00	3.823E+00	1.235E+00	-0.396
		537.26	*	-1.042E-01	3.380E-01	5.379E-01	1.802E-01	-0.194
LA-140	+	328.76		7.327E-01	6.023E-01	7.333E-01	4.761E-02	0.999
		487.02		-4.194E-02	1.767E-01	2.868E-01	2.046E-02	-0.146
		815.77		-1.642E-01	4.108E-01	6.560E-01	7.100E-02	-0.250
		1596.21	*	1.529E-02	1.023E-01	1.729E-01	1.187E-02	0.088
CE-141		145.44	*	-1.896E-02	7.377E-02	1.149E-01	6.559E-03	-0.165
CE-143		57.36		2.493E-02	7.377E-02	Half-Life too short		
		293.27	*	3.377E-02	7.377E-02	Half-Life too short		
		664.57		1.110E-01	7.377E-02	Half-Life too short		
		721.93		-2.671E-02	7.377E-02	Half-Life too short		
CE-144		80.12		-2.429E+00	2.772E+00	3.900E+00	3.377E-01	-0.623
		133.52	*	-1.257E-01	1.862E-01	2.866E-01	3.964E-02	-0.439
PM-144		476.78		-6.504E-03	5.580E-02	9.140E-02	6.713E-03	-0.071
		618.01		6.564E-03	2.927E-02	4.664E-02	3.553E-03	0.141
		696.49	*	-9.168E-03	3.143E-02	5.160E-02	4.191E-03	-0.178
PR-144		696.51	*	-6.743E-01	2.362E+00	3.880E+00	3.149E-01	-0.174
		1489.16		-1.014E+01	1.230E+01	1.794E+01	1.296E+00	-0.565
PM-146		453.88	*	2.341E-02	3.595E-02	6.161E-02	5.382E-03	0.380
		633.25		8.304E-02	1.230E+00	1.989E+00	7.546E-01	0.042
		735.93		4.243E-03	1.164E-01	1.940E-01	5.442E-02	0.022
		747.24		-3.010E-02	8.110E-02	1.310E-01	1.930E-02	-0.230
ND-147	+	91.11		8.487E-01	3.647E-01	7.741E-01	7.286E-02	1.096
		319.41		1.829E-01	4.750E+00	7.667E+00	4.430E-01	0.024
		531.02	*	-1.564E-01	7.462E-01	1.202E+00	1.678E-01	-0.130
PM-149		285.90	*	-3.708E-04	7.462E-01	Half-Life too short		
EU-152		121.78		3.634E-02	6.809E-02	1.117E-01	8.575E-03	0.325
		244.70		5.316E-02	3.128E-01	4.561E-01	2.547E-02	0.117
		344.28	*	-3.840E-02	9.898E-02	1.339E-01	8.731E-03	-0.287
		778.90		-3.794E-01	2.707E-01	3.254E-01	3.043E-02	-1.166
		964.08		6.718E-01	3.290E-01	5.251E-01	5.379E-02	1.279
		1085.87		-8.560E-02	3.393E-01	5.551E-01	4.301E-02	-0.154
		1112.07		-4.668E-02	3.006E-01	4.203E-01	2.992E-02	-0.111
	+	1408.01		3.004E-01	2.853E-01	3.015E-01	2.239E-02	0.996
GD-153		69.67		-3.051E+00	1.974E+00	2.985E+00	2.423E-01	-1.022

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		97.43	*	-1.069E-01	8.968E-02	1.308E-01	1.023E-02	-0.817
		103.18		-2.548E-02	1.201E-01	1.716E-01	1.238E-02	-0.148
EU-154		123.07		-1.984E-03	4.939E-02	7.906E-02	7.466E-03	-0.025
		723.31		1.157E-01	1.758E-01	2.658E-01	2.496E-02	0.435
		873.19		1.754E-01	2.479E-01	4.248E-01	5.786E-02	0.413
		996.26		-2.371E-02	3.118E-01	5.010E-01	9.017E-02	-0.047
		1004.73		-1.461E-01	2.071E-01	3.158E-01	3.882E-02	-0.463
		1274.44	*	-4.102E-02	1.149E-01	1.835E-01	1.847E-02	-0.224
TB-160	+	86.79		1.240E+00	3.776E-01	5.515E-01	5.045E-02	2.248
		197.04		4.218E-02	5.496E-01	9.068E-01	4.870E-02	0.047
		215.65		5.638E-01	7.078E-01	1.175E+00	6.416E-02	0.480
	+	298.57		2.933E-01	1.467E-01	2.031E-01	1.167E-02	1.444
		879.36	*	-7.320E-02	1.295E-01	2.021E-01	2.220E-02	-0.362
		962.29		1.010E+00	6.283E-01	9.851E-01	1.012E-01	1.026
		966.15		1.293E+00	3.330E-01	5.335E-01	5.445E-02	2.423
		1177.93		-3.023E-01	3.334E-01	5.141E-01	2.870E-02	-0.588
		1271.85		1.273E-01	6.825E-01	1.137E+00	7.685E-02	0.112
HO-166M		80.57		-2.947E-01	2.947E-01	4.114E-01	3.574E-02	-0.716
		184.41		6.438E-02	3.761E-02	6.056E-02	3.218E-03	1.063
		280.46		3.504E-02	8.121E-02	1.191E-01	6.794E-03	0.294
		410.95		9.941E-02	2.223E-01	3.789E-01	2.230E-02	0.262
		711.68	*	-3.957E-02	5.589E-02	8.909E-02	7.426E-03	-0.444
		752.31		2.045E-02	2.284E-01	3.813E-01	3.409E-02	0.054
		810.29		-5.649E-02	5.261E-02	7.957E-02	7.834E-03	-0.710
TA-182		67.75		8.017E-02	1.343E-01	2.146E-01	1.725E-02	0.374
		100.11		1.005E-01	1.758E-01	2.921E-01	2.196E-02	0.344
		152.43		-1.320E-01	3.511E-01	5.458E-01	2.936E-02	-0.242
		222.11		3.336E-01	3.192E-01	5.504E-01	3.021E-02	0.606
		1121.30		7.468E-01	1.827E-01	3.273E-01	2.255E-02	2.281
		1189.05		-1.079E-02	2.726E-01	4.492E-01	2.569E-02	-0.024
		1221.41	*	-9.461E-02	1.829E-01	2.908E-01	1.779E-02	-0.325
		1231.02		-7.842E-02	5.610E-01	7.786E-01	4.856E-02	-0.101
IR-192	+	295.96		1.209E+00	1.673E-01	2.934E-01	1.712E-02	4.122
		308.46		-1.443E-02	8.861E-02	1.419E-01	8.267E-03	-0.102
		316.51	*	-1.004E-02	3.279E-02	5.198E-02	3.015E-03	-0.193
		468.07		9.340E-02	6.386E-02	1.026E-01	7.319E-03	0.911
HG-203		70.83		-1.998E+00	1.839E+00	2.507E+00	3.965E-01	-0.797
		72.87		1.468E+00	1.012E+00	1.559E+00	2.391E-01	0.941
		279.20	*	2.531E-02	4.398E-02	6.496E-02	3.916E-03	0.390
BI-207		72.81		2.738E-01	2.054E-01	3.208E-01	2.648E-02	0.854
	+	74.97		7.402E-01	1.545E-01	2.498E-01	2.088E-02	2.964
		569.70		2.352E-03	2.695E-02	4.337E-02	3.039E-03	0.054
		1063.66	*	-1.020E-03	4.425E-02	7.378E-02	6.090E-03	-0.014
		1770.23		4.188E-01	4.047E-01	6.897E-01	4.172E-02	0.607
PB-210		46.54	*	8.449E-01	5.488E+00	9.016E+00	6.912E-01	0.094
PB-211		404.85	*	-3.922E-01	7.007E-01	1.098E+00	5.265E-01	-0.357
		427.09		1.220E+00	1.389E+00	2.226E+00	1.021E+00	0.548
		832.01		-2.483E-01	8.407E-01	1.336E+00	6.967E-01	-0.186
BI-212	+	727.33	*	2.586E+00	7.867E-01	1.041E+00	1.293E-01	2.484

---- Non-Identified Nuclides ----

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		785.37		2.537E+00	2.831E+00	4.899E+00	4.630E-01	0.518
		1620.50		1.439E+00	1.935E+00	3.482E+00	2.355E-01	0.413
RN-219	+	271.23		7.927E-01	3.088E-01	3.991E-01	3.170E-02	1.986
		401.81	*	-1.945E-01	3.690E-01	5.997E-01	8.064E-02	-0.324
RA-223		81.07		-2.761E-01	2.319E-01	3.196E-01	2.788E-02	-0.864
	+	83.79		2.493E-01	1.480E-01	2.111E-01	1.881E-02	1.181
		94.87		9.500E-01	4.901E-01	7.709E-01	6.277E-02	1.232
		144.24		5.225E-03	6.749E-01	1.063E+00	7.393E-02	0.005
		154.21		2.342E-01	3.532E-01	6.123E-01	4.044E-02	0.383
	+	269.46		6.159E-01	2.377E-01	3.145E-01	1.865E-02	1.958
		323.87	*	1.011E-01	6.675E-01	9.474E-01	1.526E-01	0.107
	+	338.28		7.109E+00	1.843E+00	2.171E+00	2.224E-01	3.274
AC-227		79.69		-1.205E+00	1.376E+00	1.919E+00	3.308E-01	-0.628
		235.96		4.067E-01	1.632E-01	2.604E-01	2.075E-02	1.561
		256.23	*	-6.554E-02	2.211E-01	3.571E-01	3.617E-02	-0.184
	+	299.98		2.137E+00	1.088E+00	1.484E+00	1.626E-01	1.440
		304.50		4.958E-01	1.607E+00	2.318E+00	3.531E-01	0.214
		334.37		-2.804E-01	1.900E+00	2.439E+00	3.467E-01	-0.115
TH-227		79.80		-1.594E+00	1.824E+00	2.526E+00	5.503E-01	-0.631
		235.96		4.067E-01	1.626E-01	2.604E-01	1.873E-02	1.561
		256.23	*	-6.554E-02	2.211E-01	3.571E-01	4.263E-02	-0.184
	+	299.98		2.137E+00	1.088E+00	1.484E+00	1.626E-01	1.440
		304.50		4.958E-01	1.607E+00	2.318E+00	3.531E-01	0.214
		334.37		-2.804E-01	1.900E+00	2.439E+00	3.467E-01	-0.115
PA-231		283.69	*	-2.597E-01	1.276E+00	2.054E+00	2.686E-01	-0.126
	+	301.36		1.373E+00	6.968E-01	9.734E-01	1.004E-01	1.411
TH-231		81.07		-2.761E-01	2.319E-01	3.196E-01	2.788E-02	-0.864
	+	83.79		2.493E-01	1.480E-01	2.111E-01	1.881E-02	1.181
		94.87		9.500E-01	4.901E-01	7.709E-01	6.277E-02	1.232
		144.24		5.225E-03	6.749E-01	1.063E+00	7.393E-02	0.005
		154.21		2.342E-01	3.532E-01	6.123E-01	4.044E-02	0.383
	+	269.46		6.159E-01	2.377E-01	3.145E-01	1.865E-02	1.958
		323.87	*	1.011E-01	6.675E-01	9.474E-01	1.526E-01	0.107
	+	338.28		7.109E+00	1.843E+00	2.171E+00	2.224E-01	3.274
PA-233	+	300.13		9.671E-01	4.976E-01	6.720E-01	8.981E-02	1.439
		311.90	*	8.226E-03	5.547E-02	9.024E-02	5.530E-03	0.091
		340.48		2.745E+00	9.464E-01	1.201E+00	2.786E-01	2.286
PA-234		94.67		4.751E-01	1.888E-01	2.939E-01	3.554E-02	1.617
		98.44		7.383E-02	9.637E-02	1.466E-01	8.159E-02	0.504
		111.00		6.592E-02	1.799E-01	2.945E-01	3.159E-02	0.224
		131.20		-4.940E-02	9.888E-02	1.544E-01	8.790E-03	-0.320
		569.50		2.088E-02	2.391E-01	3.848E-01	2.696E-02	0.054
		733.00		4.389E-03	3.404E-01	4.882E-01	1.084E-01	0.009
		880.51		-2.426E-01	2.491E-01	3.744E-01	4.121E-02	-0.648
		883.24		-7.418E-02	2.474E-01	3.867E-01	2.613E-01	-0.192
		926.50		-1.536E-01	1.563E-01	2.255E-01	5.892E-02	-0.681
		946.00	*	9.589E-02	2.501E-01	4.179E-01	8.244E-02	0.229
		949.00		8.559E-02	3.735E-01	6.178E-01	6.488E-02	0.139
PA-234M		766.42		2.537E+01	1.754E+01	1.981E+01	1.007E+01	1.280

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	6.288E+00	4.415E+00	7.742E+00	8.352E-01	0.812
NP-239		99.53		1.122E-01	1.559E-01	2.605E-01	1.974E-02	0.431
		103.37		3.343E-02	1.054E-01	1.551E-01	1.116E-02	0.216
	+	106.12		1.258E-01	8.503E-02	1.368E-01	9.513E-03	0.920
		117.23	*	-1.635E-01	3.798E-01	5.994E-01	3.702E-02	-0.273
		228.18		-2.224E-02	1.934E-01	3.181E-01	1.755E-02	-0.070
	+	277.60		2.123E-01	1.873E-01	2.746E-01	1.564E-02	0.773
AM-241		59.54	*	1.443E-02	1.902E-01	2.867E-01	2.378E-02	0.050
CM-247	+	278.00		9.019E-01	7.955E-01	1.161E+00	6.614E-02	0.777
		287.50		7.349E-01	1.095E+00	1.836E+00	1.050E-01	0.400
		402.40	*	-9.982E-03	3.387E-02	5.582E-02	3.250E-03	-0.179
CF-249		252.80		2.039E-01	8.177E-01	1.357E+00	7.623E-02	0.150
		333.37		4.273E-02	2.583E-01	2.642E-01	1.528E-02	0.162
		388.16	*	-1.265E-03	3.491E-02	5.845E-02	3.360E-03	-0.022
CF-251		177.52	*	-3.485E-02	1.161E-01	1.931E-01	1.020E-02	-0.181
		227.38		-1.358E-01	3.174E-01	5.152E-01	2.840E-02	-0.264
		285.41		-1.035E+00	1.941E+00	3.070E+00	1.755E-01	-0.337

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248517001      *
* Acquisition date : 19-MAR-2010 20:41:36 Detector SN#     :               *
* Detector ID        : GAM18               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.68      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 25-FEB-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248517001           Analyst initials: MXR1          *
* Batch Number       : 961099               Sample Quantity : 1.1857E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.853E+01	2.565E+00	4.202E-01	0.000E+00
CD-109	3.718E+00	1.110E+00	1.262E+00	0.000E+00
SN-126	3.595E-01	1.073E-01	1.309E-01	0.000E+00
BA-137M	3.135E-01	7.203E-02	4.627E-02	0.000E+00
CS-137	3.312E-01	7.611E-02	4.888E-02	0.000E+00
EU-155	1.582E-01	1.048E-01	1.674E-01	0.000E+00
TL-208	5.435E-01	7.736E-02	4.514E-02	0.000E+00
BI-211	4.691E+00	4.890E-01	2.913E-01	0.000E+00
PB-212	1.776E+00	1.623E-01	8.485E-02	0.000E+00
BI-214	1.315E+00	1.994E-01	9.414E-02	0.000E+00
PB-214	1.703E+00	1.999E-01	1.059E-01	0.000E+00
RA-224	4.405E+00	9.197E-01	9.083E-01	0.000E+00
RA-226	1.315E+00	1.994E-01	9.414E-02	0.000E+00
AC-228	1.884E+00	3.911E-01	1.985E-01	0.000E+00
RA-228	1.884E+00	3.911E-01	1.985E-01	0.000E+00
TH-228	1.776E+00	1.623E-01	8.485E-02	0.000E+00
TH-229	-2.395E-01	4.580E-01	7.811E-01	0.000E+00
TH-232	1.884E+00	3.911E-01	1.985E-01	0.000E+00
TH-234	3.502E+00	2.582E+00	2.342E+00	0.000E+00
U-235	-8.632E-02	1.981E-01	3.194E-01	0.000E+00
NP-237	1.073E+00	3.887E-01	3.522E-01	0.000E+00
U-238	3.502E+00	2.582E+00	2.342E+00	0.000E+00
ANH-511	1.270E-01	5.618E-02	4.099E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.677E-02	3.001E-01	5.154E-01	0.000E+00	NOT IDENT.
NA-22	-2.752E-02	4.078E-02	6.473E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.171E+09	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.885E-02	3.682E-02	5.777E-02	0.000E+00	FAIL ABUN

V-48	3.729E-02	8.206E-02	1.405E-01	0.000E+00	NOT IDENT.
CR-51	3.951E-02	3.939E-01	6.600E-01	0.000E+00	NOT IDENT.
MN-54	-1.574E-02	3.212E-02	5.221E-02	0.000E+00	NOT IDENT.
CO-56	3.502E-03	3.392E-02	5.744E-02	0.000E+00	FAIL ABUN
CO-57	6.888E-03	2.394E-02	4.066E-02	0.000E+00	NOT IDENT.
CO-58	-3.975E-02	3.643E-02	5.641E-02	0.000E+00	NOT IDENT.
FE-59	-3.171E-02	9.066E-02	1.504E-01	0.000E+00	NOT IDENT.
CO-60	-6.754E-03	3.230E-02	5.269E-02	0.000E+00	NOT IDENT.
ZN-65	1.040E-01	9.324E-02	1.491E-01	0.000E+00	NOT IDENT.
SE-75	1.148E-02	4.366E-02	6.599E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.929E-02	6.836E-02	0.000E+00	NOT IDENT.
Y-88	2.893E-02	3.251E-02	6.003E-02	0.000E+00	NOT IDENT.
Y-91	-2.186E+01	2.055E+01	3.199E+01	0.000E+00	NOT IDENT.
NB-94	3.291E-04	3.022E-02	5.179E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.825E-02	8.110E-02	0.000E+00	NOT IDENT.
NB-95M	6.974E-02	1.330E-01	2.054E-01	0.000E+00	NOT IDENT.
ZR-95	-1.878E-02	6.400E-02	1.066E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	6.017E+01	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.845E+25	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.474E-02	3.840E-02	6.228E-02	0.000E+00	NOT IDENT.
RH-106	2.211E-01	2.718E-01	4.721E-01	0.000E+00	NOT IDENT.
RU-106	2.211E-01	2.710E-01	4.721E-01	0.000E+00	NOT IDENT.
AG-108M	-9.688E-03	2.444E-02	4.097E-02	0.000E+00	NOT IDENT.
AG-110M	4.506E-02	3.411E-02	5.609E-02	0.000E+00	NOT IDENT.
SN-113	-1.276E-02	3.847E-02	6.544E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	8.939E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-2.475E-02	7.147E-02	1.222E-01	0.000E+00	NOT IDENT.
TE-123M	-3.548E-03	2.637E-02	4.539E-02	0.000E+00	NOT IDENT.
SB-124	1.030E-02	6.540E-02	1.122E-01	0.000E+00	NOT IDENT.
SB-125	1.549E-02	7.627E-02	1.323E-01	0.000E+00	FAIL ABUN
TE-125M	9.214E+00	1.133E+01	1.777E+01	0.000E+00	NOT IDENT.
I-126	2.426E-01	2.925E-01	4.660E-01	0.000E+00	NOT IDENT.
SB-126	-5.018E-02	2.118E-01	3.048E-01	0.000E+00	NOT IDENT.
SB-127	-3.336E-01	3.935E+00	6.718E+00	0.000E+00	NOT IDENT.
I-131	1.220E-01	1.669E-01	3.013E-01	0.000E+00	NOT IDENT.
TE-132	-3.818E-01	3.073E+00	5.249E+00	0.000E+00	NOT IDENT.
BA-133	2.868E-02	3.995E-02	6.056E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.713E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.378E-02	4.143E-02	7.499E-02	0.000E+00	NOT IDENT.
CS-135	2.217E-01	1.511E-01	2.432E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.881E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.644E-02	1.317E-01	2.139E-01	0.000E+00	NOT IDENT.
CE-139	1.052E-02	2.624E-02	4.686E-02	0.000E+00	NOT IDENT.
BA-140	-1.042E-01	3.312E-01	5.425E-01	0.000E+00	NOT IDENT.
LA-140	1.529E-02	1.003E-01	1.723E-01	0.000E+00	FAIL ABUN
CE-141	-1.896E-02	7.229E-02	1.175E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.847E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.257E-01	1.825E-01	2.935E-01	0.000E+00	NOT IDENT.
PM-144	-9.168E-03	3.080E-02	5.189E-02	0.000E+00	NOT IDENT.
PR-144	-6.743E-01	2.315E+00	3.901E+00	0.000E+00	NOT IDENT.
PM-146	2.341E-02	3.523E-02	6.225E-02	0.000E+00	NOT IDENT.
ND-147	-1.564E-01	7.312E-01	1.213E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	7.761E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-3.840E-02	9.700E-02	1.357E-01	0.000E+00	FAIL ABUN
GD-153	-1.069E-01	8.788E-02	1.344E-01	0.000E+00	NOT IDENT.
EU-154	-4.102E-02	1.126E-01	1.832E-01	0.000E+00	NOT IDENT.
TB-160	-7.320E-02	1.269E-01	2.027E-01	0.000E+00	FAIL ABUN
HO-166M	-3.957E-02	5.477E-02	8.956E-02	0.000E+00	NOT IDENT.
TA-182	-9.461E-02	1.793E-01	2.906E-01	0.000E+00	NOT IDENT.
IR-192	-1.004E-02	3.213E-02	5.272E-02	0.000E+00	FAIL ABUN
HG-203	2.531E-02	4.311E-02	6.599E-02	0.000E+00	NOT IDENT.
BI-207	-1.020E-03	4.336E-02	7.383E-02	0.000E+00	FAIL ABUN
PB-210	8.449E-01	5.378E+00	9.337E+00	0.000E+00	NOT IDENT.
PB-211	-3.922E-01	6.867E-01	1.110E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.710E-01	1.046E+00	0.000E+00	FAIL ABUN
RN-219	-1.945E-01	3.616E-01	6.068E-01	0.000E+00	FAIL ABUN
RA-223	1.011E-01	6.542E-01	9.608E-01	0.000E+00	FAIL ABUN
AC-227	-6.554E-02	2.167E-01	3.631E-01	0.000E+00	FAIL ABUN
TH-227	-6.554E-02	2.167E-01	3.631E-01	0.000E+00	FAIL ABUN
PA-231	-2.597E-01	1.251E+00	2.086E+00	0.000E+00	FAIL ABUN
TH-231	1.011E-01	6.542E-01	9.608E-01	0.000E+00	FAIL ABUN
PA-233	8.226E-03	5.436E-02	9.155E-02	0.000E+00	FAIL ABUN
PA-234	9.589E-02	2.451E-01	4.188E-01	0.000E+00	NOT IDENT.
PA-234M	6.288E+00	4.327E+00	7.753E+00	0.000E+00	NOT IDENT.
NP-239	-1.635E-01	3.722E-01	6.147E-01	0.000E+00	FAIL ABUN
AM-241	1.443E-02	1.864E-01	2.962E-01	0.000E+00	NOT IDENT.
CM-247	-9.982E-03	3.319E-02	5.648E-02	0.000E+00	FAIL ABUN
CF-249	-1.265E-03	3.422E-02	5.916E-02	0.000E+00	NOT IDENT.

CF-251	-3.485E-02	1.138E-01	1.971E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 22:42:43.93

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248517001.CNF;1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 20:41:36
Sample ID         : G248517001           Sample quantity  : 1.18570E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.68  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 961099               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1819	10.66*	1.894E+00	2.853E+01	2.853E+01	9.17
CD-109	88.03	270	3.70*	6.438E+00	3.595E+00	3.718E+00	30.46
SN-126	64.28	124	9.60	3.030E+00	1.350E+00	1.350E+00	74.52
	86.94	270	8.90	6.438E+00	1.494E+00	1.494E+00	50.63
	87.57	270	37.00*	6.438E+00	3.595E-01	3.595E-01	30.46
BA-137M	661.66	319	89.90*	3.588E+00	3.131E-01	3.135E-01	23.44
CS-137	661.66	319	85.10*	3.588E+00	3.307E-01	3.312E-01	23.45
EU-155	86.55	270	30.70	6.438E+00	4.333E-01	4.372E-01	30.48
	105.31	81	21.10*	7.728E+00	1.568E-01	1.582E-01	67.59
TL-208	277.37	61	6.60	6.259E+00	4.646E-01	4.646E-01	88.68
	583.19	574	85.00*	3.935E+00	5.435E-01	5.435E-01	14.52
	860.56	------	12.50	2.914E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	4.622E+00	------ Line Not Found		------
	351.06	1044	12.92*	5.452E+00	4.691E+00	4.691E+00	10.64
PB-212	74.82	412	10.28	4.942E+00	2.567E+00	2.567E+00	23.03
	77.11	750	17.10	5.259E+00	2.642E+00	2.642E+00	14.21
	238.63	1662	43.60*	6.793E+00	1.776E+00	1.776E+00	9.32
	300.09	121	3.30	5.985E+00	1.943E+00	1.943E+00	50.39
BI-214	609.32	721	45.49*	3.814E+00	1.315E+00	1.315E+00	15.47
	1120.29	205	14.92	2.335E+00	1.862E+00	1.862E+00	27.57
	1764.49	140	15.30	1.695E+00	1.705E+00	1.705E+00	28.88
PB-214	74.82	412	5.80	4.942E+00	4.550E+00	4.550E+00	22.33
	77.11	750	9.70	5.259E+00	4.657E+00	4.657E+00	16.43
	242.00	385	7.25	6.748E+00	2.491E+00	2.491E+00	22.08
	295.22	537	18.42	6.041E+00	1.528E+00	1.528E+00	15.26
	351.93	1044	35.60*	5.452E+00	1.703E+00	1.703E+00	11.98
RA-224	240.99	385	4.10*	6.748E+00	4.405E+00	4.405E+00	21.30
RA-226	609.32	721	45.49*	3.814E+00	1.315E+00	1.315E+00	15.47
	1120.29	205	14.92	2.335E+00	1.862E+00	1.862E+00	27.57
	1764.49	140	15.30	1.695E+00	1.705E+00	1.705E+00	28.88
AC-228	338.32	356	11.27	5.578E+00	1.792E+00	1.792E+00	47.61
	911.20	427	25.80*	2.781E+00	1.884E+00	1.884E+00	21.18

Sample ID : G248517001 Acquisition date : 19-MAR-2010 20:41:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	151	15.80	2.639E+00	1.148E+00	1.148E+00	55.17
RA-228	338.32	356	11.27	5.578E+00	1.792E+00	1.792E+00	47.61
	911.20	427	25.80*	2.781E+00	1.884E+00	1.884E+00	21.18
	968.97	151	15.80	2.639E+00	1.148E+00	1.148E+00	55.17
TH-228	74.82	412	10.28	4.942E+00	2.567E+00	2.567E+00	20.91
	77.11	750	17.10	5.259E+00	2.642E+00	2.642E+00	14.21
	238.63	1662	43.60*	6.793E+00	1.776E+00	1.776E+00	9.32
	300.09	121	3.30	5.985E+00	1.943E+00	1.943E+00	78.58
TH-229	85.43	119	14.70	6.107E+00	4.188E-01	4.188E-01	59.37
	88.47	270	24.00	6.438E+00	5.542E-01	5.542E-01	30.46
	193.51	------	4.41*	7.521E+00	------	Line Not Found	------
	210.85	------	2.80	7.232E+00	------	Line Not Found	------
TH-232	338.32	356	11.27	5.578E+00	1.792E+00	1.792E+00	24.51
	911.20	427	25.80*	2.781E+00	1.884E+00	1.884E+00	21.18
	968.97	151	15.80	2.639E+00	1.148E+00	1.148E+00	55.17
TH-234	63.29	124	3.70*	3.030E+00	3.502E+00	3.502E+00	75.23
	92.59	194	4.23	6.963E+00	2.090E+00	2.090E+00	47.65
U-235	89.96	122	3.47	6.719E+00	1.659E+00	1.659E+00	48.63
	93.35	194	5.60	6.963E+00	1.579E+00	1.579E+00	48.12
	143.76	------	10.96*	8.222E+00	------	Line Not Found	------
	163.33	------	5.08	8.005E+00	------	Line Not Found	------
	185.72	254	57.20	7.645E+00	1.839E-01	1.839E-01	33.18
	205.31	------	5.01	7.323E+00	------	Line Not Found	------
NP-237	86.48	270	12.40*	6.438E+00	1.073E+00	1.073E+00	36.98
	95.86	------	2.68	7.180E+00	------	Line Not Found	------
U-238	63.29	124	3.70*	3.030E+00	3.502E+00	3.502E+00	75.23
	92.59	194	4.23	6.963E+00	2.090E+00	2.090E+00	43.09
ANH-511	511.00	173	100.00*	4.312E+00	1.270E-01	1.270E-01	45.13

Flag: "*" = Keyline

Sample ID : G248517001 Acquisition date : 19-MAR-2010 20:41:36

Total number of lines in spectrum 35
Number of unidentified lines 4
Number of lines tentatively identified by NID 31 88.57%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.853E+01	2.853E+01	0.262E+01	9.17	
CD-109	461.40D	1.03	3.595E+00	3.718E+00	1.132E+00	30.46	
SN-126	2.30E+05Y	1.00	3.595E-01	3.595E-01	1.095E-01	30.46	
BA-137M	30.08Y	1.00	3.131E-01	3.135E-01	0.735E-01	23.44	
CS-137	30.08Y	1.00	3.307E-01	3.312E-01	0.777E-01	23.45	
EU-155	4.75Y	1.01	1.568E-01	1.582E-01	1.070E-01	67.59	
TL-208	1.41E+10Y	1.00	5.435E-01	5.435E-01	0.789E-01	14.52	
BI-211	7.04E+08Y	1.00	4.691E+00	4.691E+00	0.499E+00	10.64	
PB-212	1.41E+10Y	1.00	1.776E+00	1.776E+00	0.166E+00	9.32	
BI-214	1600.00Y	1.00	1.315E+00	1.315E+00	0.203E+00	15.47	
PB-214	1600.00Y	1.00	1.703E+00	1.703E+00	0.204E+00	11.98	
RA-224	1.41E+10Y	1.00	4.405E+00	4.405E+00	0.938E+00	21.30	
RA-226	1600.00Y	1.00	1.315E+00	1.315E+00	0.203E+00	15.47	
AC-228	1.41E+10Y	1.00	1.884E+00	1.884E+00	0.399E+00	21.18	
RA-228	1.41E+10Y	1.00	1.884E+00	1.884E+00	0.399E+00	21.18	
TH-228	1.41E+10Y	1.00	1.776E+00	1.776E+00	0.166E+00	9.32	
TH-229	7340.00Y	1.00	5.542E-01	5.542E-01	1.688E-01	30.46	K
TH-232	1.41E+10Y	1.00	1.884E+00	1.884E+00	0.399E+00	21.18	
TH-234	4.47E+09Y	1.00	3.502E+00	3.502E+00	2.635E+00	75.23	
U-235	7.04E+08Y	1.00	1.839E-01	1.839E-01	0.610E-01	33.18	K
NP-237	2.14E+06Y	1.00	1.073E+00	1.073E+00	0.397E+00	36.98	
U-238	4.47E+09Y	1.00	3.502E+00	3.502E+00	2.635E+00	75.23	
ANH-511	1.00E+09Y	1.00	1.270E-01	1.270E-01	0.573E-01	45.13	
	Total Activity :		6.540E+01	6.553E+01			

Grand Total Activity : 6.540E+01 6.553E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248517001 Acquisition date : 19-MAR-2010 20:41:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.27	204	337	1.09	417.56	413	10	2.84E-02	36.5	7.26E+00	
0	269.94	172	228	1.54	538.86	533	11	2.39E-02	38.1	6.35E+00	T
0	328.09	79	257	1.38	655.13	649	11	1.10E-02	81.9	5.68E+00	T
0	463.08	112	138	1.62	925.03	919	12	1.56E-02	46.0	4.60E+00	T
0	726.68	182	101	1.99	1452.09	1445	14	2.53E-02	27.8	3.34E+00	T
0	769.51	71	222	0.85	1537.72	1529	21	9.80E-03	****	3.19E+00	
0	1237.25	70	94	2.07	2473.04	2464	13	9.75E-03	62.6	2.15E+00	T
0	1376.53	64	43	2.46	2751.56	2742	19	8.96E-03	54.6	1.98E+00	
0	1408.74	39	47	6.86	2815.97	2805	20	5.38E-03	94.7	1.94E+00	T
0	1728.65	55	23	1.42	3455.76	3446	20	7.62E-03	51.9	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 22:42:47.32

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248517001.CNF;1  *
* Acquisition date : 19-MAR-2010 20:41:36  Detector SN#    :                *
* Detector ID      : GAM18                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.68         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-FEB-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G248517001            Analyst initials: MXR1           *
* Batch Number     : 961099                Sample Quantity : 1.18570E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.853E+01	2.617E+00	4.215E-01	3.198E-02	67.684
CD-109	3.718E+00	1.132E+00	1.227E+00	1.134E-01	3.031
SN-126	3.595E-01	1.095E-01	1.273E-01	1.173E-02	2.824
BA-137M	3.135E-01	7.350E-02	4.599E-02	3.506E-03	6.816
CS-137	3.312E-01	7.766E-02	4.859E-02	3.713E-03	6.816
EU-155	1.582E-01	1.070E-01	1.631E-01	1.165E-02	0.970
TL-208	5.435E-01	7.894E-02	4.481E-02	3.507E-03	12.129
BI-211	4.691E+00	4.989E-01	2.875E-01	1.846E-02	16.319
PB-212	1.776E+00	1.656E-01	8.339E-02	6.012E-03	21.302
BI-214	1.315E+00	2.034E-01	9.348E-02	8.401E-03	14.071
PB-214	1.703E+00	2.040E-01	1.045E-01	8.848E-03	16.288
RA-224	4.405E+00	9.384E-01	8.927E-01	4.973E-02	4.934
RA-226	1.315E+00	2.034E-01	9.348E-02	8.401E-03	14.071
AC-228	1.884E+00	3.991E-01	1.980E-01	2.682E-02	9.517
RA-228	1.884E+00	3.991E-01	1.980E-01	2.682E-02	9.517
TH-228	1.776E+00	1.656E-01	8.339E-02	6.012E-03	21.302
TH-229	5.542E-01	1.688E-01	7.659E-01	4.100E-02	0.724
TH-232	1.884E+00	3.991E-01	1.980E-01	2.682E-02	9.517

Sample ID : G248517001 Acquisition date : 19-MAR-2010 20:41:36

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	3.502E+00	2.635E+00	2.269E+00	4.086E-01	1.544
U-235	1.839E-01	6.102E-02	3.122E-01	4.868E-02	0.589
NP-237	1.073E+00	3.966E-01	3.424E-01	7.829E-02	3.133
U-238	3.502E+00	2.635E+00	2.269E+00	4.086E-01	1.544
ANH-511	1.270E-01	5.733E-02	4.062E-02	2.683E-03	3.127

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.677E-02		3.062E-01	5.104E-01	3.697E-02	0.111
NA-22	-2.752E-02		4.161E-02	6.482E-02	4.411E-03	-0.425
NA-24	-5.495E+02		1.108E+03	Half-Life too short		
SC-46	-2.885E-02		3.757E-02	5.761E-02	6.426E-03	-0.501
V-48	3.729E-02		8.373E-02	1.403E-01	1.387E-02	0.266
CR-51	3.951E-02		4.020E-01	6.507E-01	4.183E-02	0.061
MN-54	-1.574E-02		3.278E-02	5.203E-02	5.329E-03	-0.303
CO-56	3.502E-03		3.461E-02	5.725E-02	5.977E-03	0.061
CO-57	6.888E-03		2.443E-02	3.967E-02	2.350E-03	0.174
CO-58	-3.975E-02		3.717E-02	5.620E-02	5.548E-03	-0.707
FE-59	-3.171E-02		9.252E-02	1.503E-01	1.237E-02	-0.211
CO-60	-6.754E-03		3.296E-02	5.279E-02	3.989E-03	-0.128
ZN-65	1.040E-01		9.514E-02	1.491E-01	1.050E-02	0.698
SE-75	1.148E-02		4.455E-02	6.493E-02	3.715E-03	0.177
SR-85	1.104E-01		4.009E-02	6.775E-02	4.489E-03	1.630
Y-88	2.893E-02		3.317E-02	6.036E-02	3.438E-03	0.479
Y-91	-2.186E+01		2.097E+01	3.201E+01	1.892E+00	-0.683
NB-94	3.291E-04		3.084E-02	5.151E-02	4.226E-03	0.006
NB-95	1.048E-01		4.923E-02	8.075E-02	7.386E-03	1.297
NB-95M	6.974E-02		1.357E-01	2.018E-01	1.486E-02	0.346
ZR-95	-1.878E-02		6.530E-02	1.061E-01	1.048E-02	-0.177
MO-99	1.094E-05		3.070E-05	Half-Life too short		
TC-99M	-1.357E+18		9.413E+18	Half-Life too short		
RU-103	-2.474E-02		3.919E-02	6.170E-02	7.880E-03	-0.401
RH-106	2.211E-01		2.774E-01	4.689E-01	5.849E-02	0.471
RU-106	2.211E-01		2.765E-01	4.689E-01	3.451E-02	0.471
AG-108M	-9.688E-03		2.494E-02	4.053E-02	2.613E-03	-0.239
AG-110M	4.506E-02		3.481E-02	5.575E-02	4.397E-03	0.808
SN-113	-1.276E-02		3.925E-02	6.466E-02	3.966E-03	-0.197
CD-115	-4.320E-05		4.561E-05	Half-Life too short		
SN-117M	-2.475E-02		7.293E-02	1.196E-01	6.355E-03	-0.207
TE-123M	-3.548E-03		2.691E-02	4.441E-02	2.396E-03	-0.080
SB-124	1.030E-02		6.673E-02	1.127E-01	7.804E-03	0.091
SB-125	1.549E-02		7.782E-02	1.309E-01	8.170E-03	0.118
TE-125M	9.214E+00		1.156E+01	1.732E+01	1.558E+00	0.532
I-126	2.426E-01		2.984E-01	4.632E-01	3.561E-02	0.524
SB-126	-5.018E-02		2.161E-01	3.033E-01	2.568E-02	-0.165
SB-127	-3.336E-01		4.015E+00	6.680E+00	8.909E-01	-0.050

Sample ID : G248517001 Acquisition date : 19-MAR-2010 20:41:36

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	1.220E-01		1.703E-01	2.975E-01	1.945E-02	0.410
TE-132	-3.818E-01		3.136E+00	5.156E+00	8.342E-01	-0.074
BA-133	2.868E-02		4.077E-02	5.977E-02	6.735E-03	0.480
I-133	-2.289E+00		8.741E-01	Half-Life too short		
CS-134	5.378E-02		4.228E-02	7.469E-02	7.224E-03	0.720
CS-135	2.217E-01		1.541E-01	2.393E-01	1.809E-02	0.926
I-135	-2.482E+17		2.490E+17	Half-Life too short		
CS-136	-8.644E-02		1.344E-01	2.137E-01	1.917E-02	-0.404
CE-139	1.052E-02		2.677E-02	4.587E-02	2.408E-03	0.229
BA-140	-1.042E-01		3.380E-01	5.379E-01	1.802E-01	-0.194
LA-140	1.529E-02		1.023E-01	1.729E-01	1.187E-02	0.088
CE-141	-1.896E-02		7.377E-02	1.149E-01	6.559E-03	-0.165
CE-143	3.377E-02		5.024E-03	Half-Life too short		
CE-144	-1.257E-01		1.862E-01	2.866E-01	3.964E-02	-0.439
PM-144	-9.168E-03		3.143E-02	5.160E-02	4.191E-03	-0.178
PR-144	-6.743E-01		2.362E+00	3.880E+00	3.149E-01	-0.174
PM-146	2.341E-02		3.595E-02	6.161E-02	5.382E-03	0.380
ND-147	-1.564E-01		7.462E-01	1.202E+00	1.678E-01	-0.130
PM-149	-3.708E-04		3.960E-04	Half-Life too short		
EU-152	-3.840E-02		9.898E-02	1.339E-01	8.731E-03	-0.287
GD-153	-1.069E-01		8.968E-02	1.308E-01	1.023E-02	-0.817
EU-154	-4.102E-02		1.149E-01	1.835E-01	1.847E-02	-0.224
TB-160	-7.320E-02		1.295E-01	2.021E-01	2.220E-02	-0.362
HO-166M	-3.957E-02		5.589E-02	8.909E-02	7.426E-03	-0.444
TA-182	-9.461E-02		1.829E-01	2.908E-01	1.779E-02	-0.325
IR-192	-1.004E-02		3.279E-02	5.198E-02	3.015E-03	-0.193
HG-203	2.531E-02		4.398E-02	6.496E-02	3.916E-03	0.390
BI-207	-1.020E-03		4.425E-02	7.378E-02	6.090E-03	-0.014
PB-210	8.449E-01		5.488E+00	9.016E+00	6.912E-01	0.094
PB-211	-3.922E-01		7.007E-01	1.098E+00	5.265E-01	-0.357
BI-212	2.586E+00	+	7.867E-01	1.041E+00	1.293E-01	2.484
RN-219	-1.945E-01		3.690E-01	5.997E-01	8.064E-02	-0.324
RA-223	1.011E-01		6.675E-01	9.474E-01	1.526E-01	0.107
AC-227	-6.554E-02		2.211E-01	3.571E-01	3.617E-02	-0.184
TH-227	-6.554E-02		2.211E-01	3.571E-01	4.263E-02	-0.184
PA-231	-2.597E-01		1.276E+00	2.054E+00	2.686E-01	-0.126
TH-231	1.011E-01		6.675E-01	9.474E-01	1.526E-01	0.107
PA-233	8.226E-03		5.547E-02	9.024E-02	5.530E-03	0.091
PA-234	9.589E-02		2.501E-01	4.179E-01	8.244E-02	0.229
PA-234M	6.288E+00		4.415E+00	7.742E+00	8.352E-01	0.812
NP-239	-1.635E-01		3.798E-01	5.994E-01	3.702E-02	-0.273
AM-241	1.443E-02		1.902E-01	2.867E-01	2.378E-02	0.050
CM-247	-9.982E-03		3.387E-02	5.582E-02	3.250E-03	-0.179
CF-249	-1.265E-03		3.491E-02	5.845E-02	3.360E-03	-0.022
CF-251	-3.485E-02		1.161E-01	1.931E-01	1.020E-02	-0.181

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248517001            *
* Acquisition date : 19-MAR-2010 20:41:36 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.68     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-FEB-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248517001           Analyst initials: MXR1            *
* Batch Number     : 961099               Sample Quantity : 1.1857E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.853E+01	2.565E+00	2.102E-01	1.309E+00
CD-109	3.718E+00	1.110E+00	6.313E-01	5.662E-01
SN-126	3.595E-01	1.073E-01	6.551E-02	5.475E-02
BA-137M	3.135E-01	7.203E-02	2.315E-02	3.675E-02
CS-137	3.312E-01	7.611E-02	2.446E-02	3.883E-02
EU-155	1.582E-01	1.048E-01	8.376E-02	5.348E-02
TL-208	5.435E-01	7.736E-02	2.259E-02	3.947E-02
BI-211	4.691E+00	4.890E-01	1.457E-01	2.495E-01
PB-212	1.776E+00	1.623E-01	4.245E-02	8.282E-02
BI-214	1.315E+00	1.994E-01	4.710E-02	1.017E-01
PB-214	1.703E+00	1.999E-01	5.298E-02	1.020E-01
RA-224	4.405E+00	9.197E-01	4.544E-01	4.692E-01
RA-226	1.315E+00	1.994E-01	4.710E-02	1.017E-01
AC-228	1.884E+00	3.911E-01	9.929E-02	1.995E-01
RA-228	1.884E+00	3.911E-01	9.929E-02	1.995E-01
TH-228	1.776E+00	1.623E-01	4.245E-02	8.282E-02
TH-229	-2.395E-01	4.580E-01	3.908E-01	2.337E-01
TH-232	1.884E+00	3.911E-01	9.929E-02	1.995E-01
TH-234	3.502E+00	2.582E+00	1.172E+00	1.317E+00
U-235	-8.632E-02	1.981E-01	1.598E-01	1.011E-01
NP-237	1.073E+00	3.887E-01	1.762E-01	1.983E-01
U-238	3.502E+00	2.582E+00	1.172E+00	1.317E+00
ANH-511	1.270E-01	5.618E-02	2.051E-02	2.866E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.677E-02	3.001E-01	2.579E-01	1.531E-01	NOT IDENT.
NA-22	-2.752E-02	4.078E-02	3.239E-02	2.081E-02	NOT IDENT.
NA-24	-5.495E+08	2.171E+09	0.000E+00	1.108E+09	SHORT HLIF
SC-46	-2.885E-02	3.682E-02	2.890E-02	1.879E-02	FAIL ABUN

V-48	3.729E-02	8.206E-02	7.028E-02	4.187E-02	NOT IDENT.
CR-51	3.951E-02	3.939E-01	3.302E-01	2.010E-01	NOT IDENT.
MN-54	-1.574E-02	3.212E-02	2.612E-02	1.639E-02	NOT IDENT.
CO-56	3.502E-03	3.392E-02	2.874E-02	1.730E-02	FAIL ABUN
CO-57	6.888E-03	2.394E-02	2.034E-02	1.221E-02	NOT IDENT.
CO-58	-3.975E-02	3.643E-02	2.822E-02	1.859E-02	NOT IDENT.
FE-59	-3.171E-02	9.066E-02	7.522E-02	4.626E-02	NOT IDENT.
CO-60	-6.754E-03	3.230E-02	2.636E-02	1.648E-02	NOT IDENT.
ZN-65	1.040E-01	9.324E-02	7.458E-02	4.757E-02	NOT IDENT.
SE-75	1.148E-02	4.366E-02	3.302E-02	2.227E-02	NOT IDENT.
SR-85	1.104E-01	3.929E-02	3.420E-02	2.005E-02	NOT IDENT.
Y-88	2.893E-02	3.251E-02	3.003E-02	1.659E-02	NOT IDENT.
Y-91	-2.186E+01	2.055E+01	1.600E+01	1.048E+01	NOT IDENT.
NB-94	3.291E-04	3.022E-02	2.591E-02	1.542E-02	NOT IDENT.
NB-95	1.048E-01	4.825E-02	4.058E-02	2.462E-02	NOT IDENT.
NB-95M	6.974E-02	1.330E-01	1.027E-01	6.786E-02	NOT IDENT.
ZR-95	-1.878E-02	6.400E-02	5.334E-02	3.265E-02	NOT IDENT.
MO-99	1.094E+01	6.017E+01	0.000E+00	3.070E+01	SHORT HLIF
TC-99M	-1.357E+24	1.845E+25	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.474E-02	3.840E-02	3.116E-02	1.959E-02	NOT IDENT.
RH-106	2.211E-01	2.718E-01	2.362E-01	1.387E-01	NOT IDENT.
RU-106	2.211E-01	2.710E-01	2.362E-01	1.382E-01	NOT IDENT.
AG-108M	-9.688E-03	2.444E-02	2.050E-02	1.247E-02	NOT IDENT.
AG-110M	4.506E-02	3.411E-02	2.806E-02	1.740E-02	NOT IDENT.
SN-113	-1.276E-02	3.847E-02	3.274E-02	1.963E-02	NOT IDENT.
CD-115	-4.320E+01	8.939E+01	0.000E+00	4.561E+01	SHORT HLIF
SN-117M	-2.475E-02	7.147E-02	6.113E-02	3.646E-02	NOT IDENT.
TE-123M	-3.548E-03	2.637E-02	2.271E-02	1.345E-02	NOT IDENT.
SB-124	1.030E-02	6.540E-02	5.611E-02	3.337E-02	NOT IDENT.
SB-125	1.549E-02	7.627E-02	6.621E-02	3.891E-02	FAIL ABUN
TE-125M	9.214E+00	1.133E+01	8.891E+00	5.780E+00	NOT IDENT.
I-126	2.426E-01	2.925E-01	2.331E-01	1.492E-01	NOT IDENT.
SB-126	-5.018E-02	2.118E-01	1.525E-01	1.081E-01	NOT IDENT.
SB-127	-3.336E-01	3.935E+00	3.361E+00	2.008E+00	NOT IDENT.
I-131	1.220E-01	1.669E-01	1.507E-01	8.516E-02	NOT IDENT.
TE-132	-3.818E-01	3.073E+00	2.626E+00	1.568E+00	NOT IDENT.
BA-133	2.868E-02	3.995E-02	3.030E-02	2.038E-02	FAIL ABUN
I-133	-2.289E+06	1.713E+06	0.000E+00	8.741E+05	SHORT HLIF
CS-134	5.378E-02	4.143E-02	3.752E-02	2.114E-02	NOT IDENT.
CS-135	2.217E-01	1.511E-01	1.217E-01	7.707E-02	NOT IDENT.
I-135	-2.482E+23	4.881E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.644E-02	1.317E-01	1.070E-01	6.722E-02	NOT IDENT.
CE-139	1.052E-02	2.624E-02	2.344E-02	1.339E-02	NOT IDENT.
BA-140	-1.042E-01	3.312E-01	2.714E-01	1.690E-01	NOT IDENT.
LA-140	1.529E-02	1.003E-01	8.618E-02	5.117E-02	FAIL ABUN
CE-141	-1.896E-02	7.229E-02	5.879E-02	3.688E-02	NOT IDENT.
CE-143	3.377E+04	9.847E+03	0.000E+00	5.024E+03	SHORT HLIF
CE-144	-1.257E-01	1.825E-01	1.468E-01	9.310E-02	NOT IDENT.
PM-144	-9.168E-03	3.080E-02	2.596E-02	1.572E-02	NOT IDENT.
PR-144	-6.743E-01	2.315E+00	1.952E+00	1.181E+00	NOT IDENT.
PM-146	2.341E-02	3.523E-02	3.114E-02	1.797E-02	NOT IDENT.
ND-147	-1.564E-01	7.312E-01	6.067E-01	3.731E-01	FAIL ABUN
PM-149	-3.708E+02	7.761E+02	0.000E+00	3.960E+02	SHORT HLIF
EU-152	-3.840E-02	9.700E-02	6.789E-02	4.949E-02	FAIL ABUN
GD-153	-1.069E-01	8.788E-02	6.725E-02	4.484E-02	NOT IDENT.
EU-154	-4.102E-02	1.126E-01	9.166E-02	5.747E-02	NOT IDENT.
TB-160	-7.320E-02	1.269E-01	1.014E-01	6.473E-02	FAIL ABUN
HO-166M	-3.957E-02	5.477E-02	4.481E-02	2.794E-02	NOT IDENT.
TA-182	-9.461E-02	1.793E-01	1.454E-01	9.146E-02	NOT IDENT.
IR-192	-1.004E-02	3.213E-02	2.638E-02	1.640E-02	FAIL ABUN
HG-203	2.531E-02	4.311E-02	3.301E-02	2.199E-02	NOT IDENT.
BI-207	-1.020E-03	4.336E-02	3.694E-02	2.212E-02	FAIL ABUN
PB-210	8.449E-01	5.378E+00	4.671E+00	2.744E+00	NOT IDENT.
PB-211	-3.922E-01	6.867E-01	5.555E-01	3.504E-01	NOT IDENT.
BI-212	2.586E+00	7.710E-01	5.235E-01	3.934E-01	FAIL ABUN
RN-219	-1.945E-01	3.616E-01	3.036E-01	1.845E-01	FAIL ABUN
RA-223	1.011E-01	6.542E-01	4.807E-01	3.338E-01	FAIL ABUN
AC-227	-6.554E-02	2.167E-01	1.817E-01	1.105E-01	FAIL ABUN
TH-227	-6.554E-02	2.167E-01	1.817E-01	1.106E-01	FAIL ABUN
PA-231	-2.597E-01	1.251E+00	1.044E+00	6.382E-01	FAIL ABUN
TH-231	1.011E-01	6.542E-01	4.807E-01	3.338E-01	FAIL ABUN
PA-233	8.226E-03	5.436E-02	4.580E-02	2.773E-02	FAIL ABUN
PA-234	9.589E-02	2.451E-01	2.095E-01	1.251E-01	NOT IDENT.
PA-234M	6.288E+00	4.327E+00	3.879E+00	2.207E+00	NOT IDENT.
NP-239	-1.635E-01	3.722E-01	3.075E-01	1.899E-01	FAIL ABUN
AM-241	1.443E-02	1.864E-01	1.482E-01	9.510E-02	NOT IDENT.
CM-247	-9.982E-03	3.319E-02	2.826E-02	1.694E-02	FAIL ABUN
CF-249	-1.265E-03	3.422E-02	2.960E-02	1.746E-02	NOT IDENT.

CF-251	-3.485E-02	1.138E-01	9.861E-02	5.805E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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```

ENERGY	MDA COUNTS
46.54	285.3539
49.72	314.2181
57.36	0.0000
59.54	291.9760
63.29	308.5002
63.29	308.5002
64.28	373.4164
67.75	351.5339
69.67	434.4013
70.83	432.1059
72.81	376.3885
72.87	376.4573
72.87	376.4573
74.82	418.3024
74.82	418.3024
74.82	418.3024
74.97	418.4894
77.11	421.1378
77.11	421.1378
77.11	421.1378
79.69	424.2841
79.80	424.4167
80.12	424.8038
80.19	424.8864
80.57	425.3452
81.00	425.8605
81.07	425.9453
81.07	425.9453
83.79	370.4489
83.79	370.4489
85.43	335.8065
86.48	336.7584
86.55	336.8228
86.79	337.0362
86.94	337.1733
87.57	429.0220
88.03	377.7576
88.47	378.1966
89.96	379.6781
91.11	393.0977
92.59	394.5957
92.59	394.5957
93.35	336.6732
94.67	326.9508
94.87	327.1151
94.87	327.1151
95.86	351.2370
97.43	376.9434
98.44	302.3842
99.53	301.0957
100.11	302.5645
103.18	321.1338
103.37	300.7034
105.31	320.0885
106.12	344.0506
109.28	317.6623
111.00	331.7764
111.76	355.9991
116.30	299.8079
117.23	323.2652
121.12	297.4042
121.78	287.9231
122.06	303.4852
123.07	318.4456
131.20	338.2692
133.52	319.5520
136.00	318.8220

136.47	307.7930
140.51	0.0000
140.51	0.0000
143.76	367.0866
144.24	353.6310
144.24	353.6310
145.44	360.1614
152.43	354.1997
153.25	351.7929
154.21	336.6035
154.21	336.6035
156.02	330.6265
158.56	331.1863
159.00	315.5236
162.66	312.1381
163.33	307.1472
165.86	295.9181
176.60	321.0724
177.52	327.0008
181.07	0.0000
184.41	332.8755
185.72	316.3784
193.51	322.8519
197.04	309.5009
205.31	317.3192
210.85	266.2060
215.65	254.0782
222.11	248.4961
227.38	295.1592
228.16	285.6709
228.18	285.6776
235.69	303.4172
235.96	294.0353
235.96	294.0353
238.63	281.5299
238.63	281.5299
240.99	282.3489
242.00	240.4922
244.70	239.6869
252.40	229.8108
252.80	219.8362
256.23	239.9600
256.23	239.9600
260.90	0.0000
264.66	202.8411
268.22	203.6615
269.46	221.0069
269.46	221.0069
271.23	230.7163
273.65	227.2073
276.40	227.0701
277.37	222.9556
277.60	223.0113
278.00	217.5061
279.20	229.4284
279.54	229.5126
280.46	198.1135
283.69	223.4467
284.31	225.6866
285.41	233.2762
285.90	0.0000
287.50	205.4896
293.27	0.0000
295.22	238.8766
295.96	239.0629
298.57	239.7112
299.98	240.0595
299.98	240.0595
300.09	240.0871
300.09	240.0871
300.13	240.0940
301.36	212.7411
302.85	201.1358
304.50	198.0581
304.50	198.0581
304.85	199.8369
308.46	192.8540
311.90	184.9178

316.51	200.8860
319.41	201.4593
320.08	203.7575
323.87	208.8633
323.87	208.8633
328.76	239.5761
333.37	206.3766
334.37	213.1644
334.37	213.1644
338.28	198.5065
338.28	198.5065
338.32	198.5147
338.32	198.5147
338.32	198.5147
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340.55	192.7379
344.28	195.1775
351.06	189.6962
351.93	189.8441
356.01	154.2268
364.49	137.3232
366.42	0.0000
383.85	180.9649
388.16	182.5409
388.63	173.3905
391.69	173.8311
400.66	198.4005
401.81	203.2480
402.40	199.6140
404.85	222.4393
410.95	186.9002
414.70	168.6166
423.72	160.3251
427.09	133.1606
427.87	152.2734
433.94	155.8508
453.88	135.8677
463.37	134.8532
468.07	99.6835
473.00	144.6385
476.78	142.0647
477.60	142.1473
487.02	144.0760
492.35	0.0000
497.08	148.0741
511.00	141.3851
514.00	109.6220
527.90	0.0000
529.87	0.0000
531.02	125.8498
537.26	130.4633
546.56	0.0000
563.25	131.5494
569.33	113.1759
569.50	118.4265
569.70	118.4431
583.19	103.5532
600.60	161.9049
602.73	174.5745
604.72	130.1887
609.32	121.2350
609.32	121.2350
610.33	116.2970
614.28	129.1113
618.01	118.6018
621.93	104.8173
621.93	104.8173
633.25	112.0050
635.95	105.6367
636.99	105.6983
645.85	123.7317
657.76	100.7589
661.66	101.2317
661.66	101.2317
664.57	0.0000
666.33	96.4741
666.50	96.4826
677.62	86.3096

685.70	109.0400
695.00	136.7206
696.49	142.4474
696.51	142.4505
697.00	134.9854
702.65	142.8958
706.68	129.9983
711.68	146.3784
720.70	120.3403
721.93	0.0000
722.78	131.8623
722.91	131.8708
723.31	122.1261
724.19	114.0332
727.33	96.2619
733.00	93.2592
735.93	93.6655
739.50	0.0000
747.24	106.6708
752.31	101.1505
753.82	86.7627
756.73	107.1564
763.94	92.9922
765.81	106.3705
766.42	108.0643
777.92	0.0000
778.90	130.4362
783.70	91.8982
785.37	98.8177
795.86	101.2607
801.95	99.5678
810.29	119.7322
810.76	117.7798
815.77	98.2044
818.51	84.4189
832.01	99.9105
834.85	115.0398
836.80	0.0000
846.77	85.4704
856.80	115.1249
860.56	85.9771
871.09	82.2969
873.19	82.3694
875.33	0.0000
879.36	96.8555
880.51	106.0820
883.24	88.8426
884.68	69.4817
889.28	106.4692
898.04	108.9092
911.20	92.9681
911.20	92.9681
911.20	92.9681
926.50	98.7380
937.49	120.0467
944.13	92.1017
946.00	74.3642
949.00	78.6469
962.29	104.8013
964.08	108.4905
966.15	130.2941
968.97	88.7681
968.97	88.7681
968.97	88.7681
983.53	76.5103
996.26	86.4877
1001.03	75.9460
1004.73	116.7528
1037.84	82.7080
1038.76	0.0000
1048.07	94.2084
1050.41	85.8842
1050.41	85.8842
1063.66	83.4779
1085.87	91.6919
1099.45	102.5684
1112.07	88.4670
1115.54	90.2417

1120.29	71.9746
1120.29	71.9746
1120.55	71.9825
1121.30	82.0475
1131.51	0.0000
1173.23	77.8711
1177.93	107.2377
1189.05	92.9457
1204.77	120.9451
1221.41	117.6262
1231.02	135.3289
1235.36	119.1336
1238.28	104.3372
1260.41	0.0000
1271.85	79.3113
1274.44	92.4332
1274.54	100.4743
1291.59	68.6736
1298.22	0.0000
1312.11	75.1872
1332.49	56.2162
1365.19	51.7589
1368.63	0.0000
1384.29	38.1215
1408.01	59.5188
1457.56	0.0000
1460.82	33.3666
1489.16	52.2949
1505.03	46.8872
1596.21	32.6283
1620.50	26.0656
1678.03	0.0000
1690.97	21.5992
1764.49	26.9604
1764.49	26.9604
1770.23	14.2196
1771.35	10.6676
1791.20	0.0000
1836.06	21.3044

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248517001

Total Uranium Activity	1.0378E+01	ug/g
Total Uranium Counting Unc.	7.6815E+00	ug/g
Total Uranium Tpu	3.9191E-06	ug/g
Total Uranium Mda	3.4861E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 961099                    SAMPLE ID   : G248517001      *
*   ANALYST       : MXR1                      DETECTOR    : GAM18           *
*   SAMPLE DATE   : 25-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 19-MAR-2010 20:41:36.03    SAMPLE ALQT:  118.570 GRAM    *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.009E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.362E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 2.711E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.316E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 22:45:33.63

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                             Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248526001.CNF;1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 20:43:36
Sample ID         : G248526001           Sample quantity  : 1.33660E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 961099                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.41*	229	519	0.97	92.37	88	8	3.18E-02	19.2	
2	0	63.48*	198	923	0.89	126.52	122	9	2.75E-02	29.2	
3	2	74.81*	1008	570	0.93	149.19	144	17	1.40E-01	4.9	2.65E+00
4	2	77.14*	1611	435	0.83	153.83	144	17	2.24E-01	3.2	
5	0	84.20*	186	467	1.12	167.95	165	6	2.58E-02	20.2	
6	4	87.26*	544	550	1.16	174.07	171	21	7.56E-02	8.2	4.51E+00
7	4	90.02	352	516	1.13	179.59	171	21	4.88E-02	11.9	
8	4	92.88*	426	477	1.22	185.31	171	21	5.91E-02	10.8	
9	0	154.02*	82	384	0.99	307.59	305	8	1.14E-02	43.1	
10	0	185.90*	240	511	1.15	371.34	366	12	3.33E-02	20.5	
11	0	209.35	180	288	0.86	418.24	415	8	2.50E-02	18.0	
12	5	238.64*	1778	187	0.95	476.82	471	17	2.47E-01	2.7	2.69E+00
13	5	241.41*	368	312	1.77	482.34	471	17	5.11E-02	14.6	
14	0	270.30	189	224	1.63	540.13	536	10	2.62E-02	16.7	
15	0	295.18*	536	218	1.13	589.88	585	10	7.45E-02	6.8	
16	0	299.98	74	223	0.95	599.48	595	9	1.03E-02	38.1	
17	0	327.45	106	165	1.46	654.42	650	10	1.47E-02	24.6	
18	0	338.24	362	287	1.12	675.99	669	14	5.02E-02	11.2	
19	0	351.87*	842	218	1.18	703.26	698	11	1.17E-01	4.9	
20	0	462.61	77	90	1.49	924.71	921	8	1.07E-02	24.3	
21	0	510.92*	153	156	1.31	1021.35	1014	14	2.12E-02	21.4	
22	0	583.22*	492	106	1.31	1165.94	1160	13	6.84E-02	6.4	
23	0	609.35*	629	73	1.47	1218.20	1211	15	8.73E-02	5.1	
24	0	727.41	89	99	1.39	1454.30	1448	11	1.23E-02	24.1	
25	0	860.86	73	45	1.02	1721.21	1717	10	1.01E-02	20.8	
26	0	911.14*	368	56	1.65	1821.76	1816	14	5.11E-02	6.9	
27	0	934.76	39	50	1.15	1869.01	1863	10	5.48E-03	37.1	
28	1	964.63	59	75	1.97	1928.75	1922	22	8.14E-03	32.9	6.56E-01
29	1	968.90*	194	64	1.81	1937.29	1922	22	2.69E-02	10.9	
30	0	1120.10*	122	87	2.06	2239.69	2230	16	1.69E-02	19.7	
31	0	1378.22	52	39	1.82	2755.95	2749	15	7.27E-03	29.1	
32	0	1460.75	1505	16	2.06	2921.03	2910	22	2.09E-01	2.7	
33	0	1764.31*	101	11	1.45	3528.20	3520	15	1.40E-02	12.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 22:45:36

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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248526001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 20:43:36
Sample ID         : G248526001           Sample quantity  : 133.66 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA25              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.22   0.0%
Peak Width (FWHM):      3.00             Confidence level :     5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.576E+01	3.594E+00	5.565E-01	4.739E-02	64.266
CD-109	+	88.03	*	4.543E+00	8.917E-01	7.293E-01	7.837E-02	6.230
SN-126	+	64.28		5.929E-01	3.589E-01	2.958E-01	4.714E-02	2.004
	+	86.94		1.826E+00	8.211E-01	2.917E-01	1.221E-01	6.260
	+	87.57	*	4.393E-01	8.622E-02	7.037E-02	7.546E-03	6.243
TL-208		277.37		3.772E-01	3.868E-01	6.388E-01	9.181E-02	0.591
	+	583.19	*	6.515E-01	1.106E-01	5.432E-02	6.119E-03	11.993
	+	860.56		9.295E-01	3.986E-01	4.766E-01	4.980E-02	1.950
PB-210	+	46.54	*	1.651E+00	6.567E-01	5.796E-01	5.936E-02	2.848
BI-211		72.87		5.943E-01	1.739E+00	2.555E+00	2.580E-01	0.233
	+	351.06	*	4.708E+00	6.754E-01	3.352E-01	3.533E-02	14.043
PB-212	+	74.82		2.841E+00	4.870E-01	2.835E-01	3.988E-02	10.021
	+	77.11		2.741E+00	3.315E-01	1.718E-01	1.761E-02	15.951
	+	238.63	*	2.145E+00	2.714E-01	8.367E-02	9.559E-03	25.635
	+	300.09		1.419E+00	1.097E+00	1.091E+00	1.369E-01	1.300
BI-214	+	609.32	*	1.617E+00	2.550E-01	1.030E-01	1.247E-02	15.695
	+	1120.29		1.638E+00	6.690E-01	5.478E-01	5.973E-02	2.990
	+	1764.49		1.969E+00	5.256E-01	3.559E-01	2.932E-02	5.534
PB-214	+	74.82		5.036E+00	8.153E-01	5.025E-01	6.478E-02	10.021
	+	77.11		4.832E+00	7.074E-01	3.029E-01	3.984E-02	15.951
	+	242.00		2.692E+00	8.486E-01	5.098E-01	6.126E-02	5.280
	+	295.22		1.815E+00	3.389E-01	2.038E-01	2.612E-02	8.907
	+	351.93	*	1.709E+00	2.626E-01	1.220E-01	1.449E-02	14.007
RA-224	+	240.99	*	4.759E+00	1.475E+00	8.979E-01	9.436E-02	5.300
RA-226	+	609.32	*	1.617E+00	2.550E-01	1.030E-01	1.247E-02	15.695
	+	1120.29		1.638E+00	6.690E-01	5.478E-01	5.973E-02	2.990
	+	1764.49		1.969E+00	5.256E-01	3.559E-01	2.932E-02	5.534
AC-228	+	338.32		2.243E+00	1.071E+00	3.543E-01	1.493E-01	6.330
	+	911.20	*	2.387E+00	4.411E-01	2.417E-01	2.954E-02	9.876
	+	968.97		2.165E+00	7.126E-01	4.738E-01	1.166E-01	4.569
RA-228	+	338.32		2.243E+00	1.071E+00	3.543E-01	1.493E-01	6.330
	+	911.20	*	2.387E+00	4.411E-01	2.417E-01	2.954E-02	9.876
	+	968.97		2.165E+00	7.126E-01	4.738E-01	1.166E-01	4.569
TH-228	+	74.82		2.841E+00	4.024E-01	2.835E-01	2.900E-02	10.021

Sample ID : G248526001 Acquisition date : 19-MAR-2010 20:43:36

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.741E+00	3.315E-01	1.718E-01	1.761E-02	15.951
	+	238.63	*	2.145E+00	2.714E-01	8.367E-02	9.559E-03	25.635
	+	300.09		1.419E+00	1.391E+00	1.091E+00	6.720E-01	1.300
TH-229	+	85.43		3.742E-01	1.563E-01	1.891E-01	2.008E-02	1.978
	+	88.47		6.773E-01	1.329E-01	1.089E-01	1.173E-02	6.217
		193.51	*	-2.339E-02	4.533E-01	7.385E-01	7.043E-02	-0.032
	+	210.85		3.063E+00	1.141E+00	1.312E+00	1.300E-01	2.335
TH-232	+	338.32		2.243E+00	5.558E-01	3.543E-01	3.693E-02	6.330
	+	911.20	*	2.387E+00	4.411E-01	2.417E-01	2.954E-02	9.876
	+	968.97		2.165E+00	7.126E-01	4.738E-01	1.166E-01	4.569
TH-234	+	63.29	*	1.538E+00	9.447E-01	7.664E-01	1.455E-01	2.007
	+	92.59		3.061E+00	9.673E-01	6.187E-01	1.430E-01	4.946
U-235	+	89.96		3.052E+00	1.062E+00	7.585E-01	1.933E-01	4.023
	+	93.35		2.312E+00	7.473E-01	4.691E-01	1.130E-01	4.929
		143.76	*	-2.476E-02	1.670E-01	2.738E-01	5.029E-02	-0.090
		163.33		-3.507E-02	3.605E-01	5.936E-01	1.083E-01	-0.059
	+	185.72		1.835E-01	7.702E-02	5.784E-02	5.416E-03	3.173
		205.31		2.765E-01	4.734E-01	7.073E-01	1.325E-01	0.391
NP-237	+	86.48	*	1.311E+00	3.765E-01	2.253E-01	5.299E-02	5.819
		95.86		-9.406E-02	6.296E-01	9.654E-01	2.415E-01	-0.097
U-238	+	63.29	*	1.538E+00	9.447E-01	7.664E-01	1.455E-01	2.007
	+	92.59		3.061E+00	7.407E-01	6.187E-01	6.798E-02	4.946
ANH-511	+	511.00	*	1.527E-01	6.712E-02	4.340E-02	4.467E-03	3.518

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.946E-02	3.410E-01	5.471E-01	5.791E-02	-0.127
NA-22		1274.54	*	-1.771E-02	5.224E-02	8.327E-02	6.828E-03	-0.213
NA-24		1368.63	*	-3.806E+02	5.224E-02	Half-Life too short		
SC-46		889.28	*	3.852E-05	4.781E-02	7.778E-02	7.448E-03	0.000
	+	1120.55		2.942E-01	1.185E-01	1.523E-01	1.310E-02	1.931
V-48		944.13		9.152E-02	1.387E+00	2.256E+00	2.116E-01	0.041
		983.53	*	-4.263E-02	1.113E-01	1.727E-01	1.600E-02	-0.247
		1312.11		1.500E-02	1.268E-01	2.103E-01	1.714E-02	0.071
CR-51		320.08	*	-2.134E-01	4.230E-01	6.933E-01	7.695E-02	-0.308
MN-54		834.85	*	3.742E-02	4.195E-02	7.308E-02	7.416E-03	0.512
CO-56		846.77	*	-1.965E-04	4.203E-02	6.867E-02	6.890E-03	-0.003
		1037.84		-2.509E-02	3.588E-01	5.982E-01	5.671E-02	-0.042
		1238.28		2.074E-01	1.266E-01	2.269E-01	1.924E-02	0.914
		1771.35		-1.691E+00	4.732E-01	3.613E-01	2.974E-02	-4.682
CO-57		122.06	*	-2.910E-03	1.958E-02	3.285E-02	4.236E-03	-0.089
		136.47		3.409E-02	1.726E-01	2.911E-01	3.567E-02	0.117
CO-58		810.76	*	-1.997E-02	4.552E-02	7.185E-02	7.455E-03	-0.278
FE-59		1099.45	*	-5.837E-02	1.199E-01	1.920E-01	1.808E-02	-0.304
		1291.59		-3.211E-02	1.571E-01	2.528E-01	2.375E-02	-0.127
CO-60		1173.23		1.325E-02	5.159E-02	8.721E-02	7.179E-03	0.152
		1332.49	*	-1.644E-02	4.762E-02	7.515E-02	6.104E-03	-0.219

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.54	*	-1.361E-02	1.198E-01	1.696E-01	1.465E-02	-0.080
SE-75		121.12		2.658E-02	1.043E-01	1.776E-01	2.593E-02	0.150
		136.00		2.132E-02	3.329E-02	5.698E-02	6.761E-03	0.374
		264.66	*	1.695E-02	4.478E-02	7.273E-02	7.972E-03	0.233
		279.54		3.608E-03	1.144E-01	1.816E-01	2.072E-02	0.020
		400.66		-1.317E-02	2.644E-01	4.361E-01	5.034E-02	-0.030
SR-85		514.00	*	4.462E-02	4.382E-02	6.789E-02	7.004E-03	0.657
Y-88		898.04		6.123E-03	4.902E-02	8.052E-02	7.659E-03	0.076
		1836.06	*	7.491E-03	3.800E-02	6.485E-02	5.299E-03	0.116
Y-91		1204.77	*	2.727E+01	2.845E+01	5.011E+01	4.124E+00	0.544
NB-94		702.65	*	-3.605E-03	3.732E-02	6.167E-02	6.773E-03	-0.058
		871.09		1.500E-03	3.691E-02	6.038E-02	5.907E-03	0.025
NB-95		765.81	*	-1.351E-02	5.230E-02	8.473E-02	9.050E-03	-0.159
NB-95M		235.69	*	-6.003E-02	1.373E-01	1.907E-01	2.189E-02	-0.315
ZR-95		724.19		7.362E-02	1.190E-01	1.819E-01	2.088E-02	0.405
		756.73	*	-2.862E-02	9.019E-02	1.454E-01	1.669E-02	-0.197
MO-99		140.51		9.527E-05	9.019E-02	Half-Life too short		
		181.07		6.728E-05	9.019E-02	Half-Life too short		
		366.42		2.761E-04	9.019E-02	Half-Life too short		
		739.50	*	2.071E-05	9.019E-02	Half-Life too short		
		777.92		-3.720E-04	9.019E-02	Half-Life too short		
TC-99M		140.51	*	1.311E+19	9.019E-02	Half-Life too short		
RU-103		497.08	*	-4.630E-02	4.967E-02	7.456E-02	1.117E-02	-0.621
	+	610.33		1.896E+01	3.858E+00	3.570E+00	6.304E-01	5.311
RH-106		621.93	*	-4.713E-02	3.366E-01	5.605E-01	8.339E-02	-0.084
		1050.41		1.588E+00	2.920E+00	5.095E+00	4.581E-01	0.312
RU-106		621.93	*	-4.713E-02	3.366E-01	5.605E-01	6.138E-02	-0.084
		1050.41		1.588E+00	2.920E+00	5.095E+00	4.581E-01	0.312
AG-108M		433.94	*	1.872E-03	2.818E-02	4.651E-02	4.569E-03	0.040
		614.28		-4.469E-03	3.763E-02	5.450E-02	6.074E-03	-0.082
		722.91		2.674E-02	4.320E-02	6.623E-02	7.369E-03	0.404
AG-110M		657.76	*	-4.345E-02	4.001E-02	6.145E-02	6.925E-03	-0.707
		677.62		7.122E-02	3.397E-01	5.752E-01	6.468E-02	0.124
		706.68		1.421E-01	2.381E-01	4.112E-01	4.590E-02	0.346
		763.94		-2.057E-01	1.916E-01	2.896E-01	3.152E-02	-0.710
		884.68		-1.637E-02	5.685E-02	9.014E-02	8.904E-03	-0.182
		937.49		-1.268E-02	1.451E-01	2.002E-01	1.939E-02	-0.063
		1384.29		4.696E-02	2.045E-01	2.970E-01	2.504E-02	0.158
		1505.03		-1.536E-01	3.238E-01	4.885E-01	4.050E-02	-0.315
SN-113		391.69	*	-4.363E-02	4.729E-02	7.384E-02	6.896E-03	-0.591
CD-115		260.90		-2.714E-04	4.729E-02	Half-Life too short		
		492.35		1.652E-04	4.729E-02	Half-Life too short		
		527.90	*	-2.575E-06	4.729E-02	Half-Life too short		
SN-117M		156.02		1.473E+00	3.196E+00	4.860E+00	4.847E-01	0.303
		158.56	*	-3.190E-03	7.571E-02	1.121E-01	1.089E-02	-0.028
TE-123M		159.00	*	-2.071E-02	2.656E-02	4.030E-02	3.913E-03	-0.514
SB-124		602.73		-1.378E-02	4.890E-02	6.991E-02	7.599E-03	-0.197
		645.85		-5.293E-02	5.487E-01	9.132E-01	1.043E-01	-0.058
		722.78		2.920E-01	4.717E-01	7.232E-01	8.001E-02	0.404

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1690.97	*	4.762E-02	7.524E-02	1.397E-01	1.210E-02	0.341
SB-125		427.87	*	5.241E-02	8.841E-02	1.508E-01	1.456E-02	0.348
	+	463.37		6.768E-01	3.358E-01	5.434E-01	5.676E-02	1.246
		600.60		7.743E-02	1.828E-01	3.163E-01	3.597E-02	0.245
		635.95		-1.203E-01	2.830E-01	4.598E-01	5.314E-02	-0.262
TE-125M		109.28	*	2.288E+00	7.754E+00	1.330E+01	1.785E+00	0.172
I-126		388.63		2.838E-01	2.411E-01	4.245E-01	3.898E-02	0.669
		666.33	*	-3.413E-01	3.748E-01	5.854E-01	6.481E-02	-0.583
		753.82		2.053E+00	2.989E+00	5.172E+00	5.561E-01	0.397
SB-126		414.70		-5.203E-02	1.099E-01	1.756E-01	1.643E-02	-0.296
		666.50		-6.423E-02	1.282E-01	2.068E-01	2.289E-02	-0.311
		695.00		-2.579E-02	1.295E-01	2.127E-01	2.341E-02	-0.121
		697.00		-1.748E-01	4.470E-01	7.233E-01	7.955E-02	-0.242
		720.70	*	8.782E-02	2.527E-01	3.778E-01	4.123E-02	0.232
		856.80		-5.173E-01	9.120E-01	1.195E+00	1.187E-01	-0.433
SB-127		252.40		-6.053E+00	1.543E+01	2.380E+01	1.017E+01	-0.254
		473.00		-1.752E+00	6.019E+00	9.602E+00	1.511E+00	-0.182
		685.70	*	-2.638E-01	5.334E+00	8.861E+00	1.362E+00	-0.030
		783.70		8.547E+00	1.523E+01	2.597E+01	4.101E+00	0.329
I-131		80.19		4.604E+00	5.111E+00	7.639E+00	8.001E-01	0.603
		284.31		-2.555E+00	2.679E+00	3.945E+00	4.545E-01	-0.648
		364.49	*	-8.983E-02	2.176E-01	3.543E-01	3.654E-02	-0.254
		636.99		-7.220E-01	3.055E+00	5.038E+00	5.766E-01	-0.143
TE-132		49.72		6.232E+00	1.448E+01	2.197E+01	3.053E+00	0.284
		111.76		-5.544E+01	1.178E+02	1.927E+02	3.048E+01	-0.288
		116.30		2.025E+00	9.850E+01	1.668E+02	2.680E+01	0.012
		228.16	*	-3.411E-01	3.269E+00	5.241E+00	9.617E-01	-0.065
BA-133		81.00		5.024E-02	6.174E-02	8.109E-02	1.344E-02	0.620
		276.40		1.546E-01	3.545E-01	5.741E-01	9.049E-02	0.269
		302.85		3.958E-02	1.366E-01	2.082E-01	3.063E-02	0.190
		356.01	*	-1.954E-03	4.627E-02	6.785E-02	9.464E-03	-0.029
		383.85		-8.755E-02	2.818E-01	4.589E-01	5.930E-02	-0.191
I-133		529.87	*	6.484E-01	2.818E-01	Half-Life too short		
		875.33		-2.791E+01	2.818E-01	Half-Life too short		
		1298.22		-9.796E-01	2.818E-01	Half-Life too short		
CS-134		563.25		-2.793E-02	3.892E-01	6.212E-01	6.662E-02	-0.045
		569.33		-4.593E-02	2.141E-01	3.376E-01	3.642E-02	-0.136
		604.72		-3.232E-02	3.786E-02	5.058E-02	5.511E-03	-0.639
		795.86	*	5.237E-02	5.291E-02	9.275E-02	9.764E-03	0.565
		801.95		-2.890E-01	4.432E-01	6.940E-01	7.266E-02	-0.416
		1365.19		-2.342E-01	1.203E+00	1.910E+00	1.640E-01	-0.123
CS-135		268.22	*	6.567E-02	1.847E-01	2.670E-01	3.223E-02	0.246
I-135		546.56		-5.497E+17	1.847E-01	Half-Life too short		
		836.80		2.700E+18	1.847E-01	Half-Life too short		
		1038.76		-5.525E+17	1.847E-01	Half-Life too short		
		1131.51		-4.133E+17	1.847E-01	Half-Life too short		
		1260.41	*	-2.730E+17	1.847E-01	Half-Life too short		
		1457.56		7.845E+19	1.847E-01	Half-Life too short		
		1678.03		1.323E+17	1.847E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1791.20		9.235E+17	1.847E-01	Half-Life too short		
CS-136	+	153.25		1.801E+00	1.568E+00	1.868E+00	2.181E-01	0.964
		176.60		1.296E-01	6.193E-01	1.028E+00	1.028E-01	0.126
		273.65		1.388E-01	7.379E-01	1.056E+00	1.231E-01	0.131
		340.55		4.735E-01	2.406E-01	3.924E-01	4.183E-02	1.207
		818.51		-1.202E-01	1.104E-01	1.609E-01	1.658E-02	-0.747
		1048.07	*	-1.570E-01	1.783E-01	2.758E-01	2.582E-02	-0.569
		1235.36		3.086E-01	1.109E+00	1.861E+00	2.136E-01	0.166
BA-137M		661.66	*	-4.158E-02	4.322E-02	7.081E-02	7.844E-03	-0.587
CS-137		661.66	*	-4.392E-02	4.566E-02	7.480E-02	8.296E-03	-0.587
CE-139		165.86	*	-3.378E-03	2.559E-02	4.203E-02	3.747E-03	-0.080
BA-140		162.66		1.124E+00	9.758E-01	1.683E+00	1.652E-01	0.668
		304.85		-1.115E+00	1.865E+00	2.768E+00	8.314E-01	-0.403
		423.72		3.063E-01	2.818E+00	4.669E+00	1.547E+00	0.066
		537.26	*	1.380E-01	4.065E-01	6.677E-01	2.299E-01	0.207
LA-140	+	328.76		1.195E+00	6.035E-01	7.792E-01	8.571E-02	1.533
		487.02		9.246E-02	1.921E-01	3.236E-01	3.414E-02	0.286
		815.77		-1.620E-01	4.754E-01	7.540E-01	8.426E-02	-0.215
		1596.21	*	-1.824E-01	1.502E-01	2.092E-01	1.740E-02	-0.872
CE-141		145.44	*	-5.060E-02	6.170E-02	9.797E-02	1.090E-02	-0.516
CE-143		57.36		-8.435E-03	6.170E-02	Half-Life too short		
		293.27	*	1.860E-02	6.170E-02	Half-Life too short		
		664.57		1.210E-03	6.170E-02	Half-Life too short		
		721.93		3.620E-02	6.170E-02	Half-Life too short		
CE-144		80.12		1.381E+00	1.504E+00	2.249E+00	2.332E-01	0.614
		133.52	*	-1.390E-01	1.629E-01	2.610E-01	4.550E-02	-0.533
PM-144		476.78		4.763E-02	6.268E-02	1.074E-01	1.144E-02	0.443
		618.01		1.506E-02	3.294E-02	5.709E-02	6.354E-03	0.264
		696.49	*	-6.136E-03	3.851E-02	6.340E-02	6.978E-03	-0.097
PR-144		696.51	*	-4.569E-01	2.894E+00	4.764E+00	5.241E-01	-0.096
		1489.16		-3.795E+00	1.296E+01	1.996E+01	1.653E+00	-0.190
PM-146		453.88	*	2.349E-02	4.361E-02	7.372E-02	8.518E-03	0.319
		633.25		-4.053E-01	1.475E+00	2.414E+00	9.366E-01	-0.168
		735.93		1.126E-02	1.580E-01	2.631E-01	7.575E-02	0.043
		747.24		6.950E-02	1.056E-01	1.824E-01	2.911E-02	0.381
ND-147	+	91.11		1.562E+00	4.111E-01	5.281E-01	6.065E-02	2.957
		319.41		-1.801E+00	5.034E+00	8.323E+00	8.945E-01	-0.216
		531.02	*	5.941E-01	9.071E-01	1.528E+00	2.456E-01	0.389
PM-149		285.90	*	1.521E-04	9.071E-01	Half-Life too short		
EU-152		121.78		1.139E-03	5.483E-02	9.260E-02	1.274E-02	0.012
		244.70		-1.143E-02	3.272E-01	4.655E-01	4.924E-02	-0.025
		344.28	*	-3.557E-03	1.044E-01	1.537E-01	1.650E-02	-0.023
		778.90		-2.129E-01	3.020E-01	4.694E-01	4.974E-02	-0.454
	+	964.08		7.063E-01	4.691E-01	6.577E-01	6.135E-02	1.074
		1085.87		1.699E-01	4.258E-01	7.342E-01	6.465E-02	0.231
		1112.07		1.341E-01	3.922E-01	5.856E-01	5.065E-02	0.229
		1408.01		1.967E-01	1.931E-01	3.513E-01	2.886E-02	0.560
GD-153		69.67		-5.040E-01	8.482E-01	1.309E+00	1.309E-01	-0.385
		97.43	*	-7.134E-02	6.574E-02	9.483E-02	1.068E-02	-0.752

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		103.18		-7.103E-02	7.851E-02	1.288E-01	1.495E-02	-0.551
EU-154		123.07		9.137E-03	3.952E-02	6.719E-02	9.943E-03	0.136
		723.31		1.082E-01	1.951E-01	2.974E-01	3.452E-02	0.364
		873.19		1.457E-01	2.946E-01	5.009E-01	6.384E-02	0.291
		996.26		-3.580E-01	4.407E-01	6.498E-01	1.155E-01	-0.551
		1004.73		-2.630E-01	2.494E-01	3.572E-01	4.310E-02	-0.736
		1274.44	*	-4.227E-02	1.470E-01	2.354E-01	2.603E-02	-0.180
EU-155	+	86.55		5.342E-01	1.051E-01	1.327E-01	1.425E-02	4.026
		105.31	*	8.287E-02	7.845E-02	1.372E-01	1.622E-02	0.604
TB-160	+	86.79		1.515E+00	2.973E-01	3.880E-01	4.145E-02	3.905
		197.04		1.208E-01	5.157E-01	8.499E-01	8.171E-02	0.142
		215.65		-3.218E-01	7.495E-01	1.170E+00	1.171E-01	-0.275
	+	298.57		2.141E-01	1.650E-01	2.005E-01	2.206E-02	1.068
		879.36	*	3.389E-02	1.553E-01	2.581E-01	2.501E-02	0.131
		962.29		8.421E-01	7.839E-01	1.209E+00	1.128E-01	0.697
		966.15		1.166E+00	3.317E-01	6.113E-01	5.699E-02	1.907
		1177.93		-1.194E-01	4.426E-01	7.174E-01	5.905E-02	-0.166
		1271.85		-2.251E-02	8.830E-01	1.449E+00	1.187E-01	-0.016
HO-166M		80.57		7.967E-02	1.817E-01	2.347E-01	2.439E-02	0.339
	+	184.41		1.458E-01	6.119E-02	5.737E-02	5.355E-03	2.542
		280.46		-6.442E-02	8.580E-02	1.297E-01	1.447E-02	-0.497
		410.95		3.439E-01	2.543E-01	4.479E-01	4.173E-02	0.768
		711.68	*	-4.516E-02	6.555E-02	1.030E-01	1.128E-02	-0.438
		752.31		-8.404E-02	2.999E-01	4.848E-01	5.217E-02	-0.173
		810.29		-5.307E-02	6.549E-02	9.975E-02	1.034E-02	-0.532
TA-182		67.75		4.965E-02	5.246E-02	8.522E-02	8.479E-03	0.583
		100.11		1.200E-01	1.254E-01	2.198E-01	2.511E-02	0.546
		152.43		1.567E-01	3.459E-01	5.210E-01	5.383E-02	0.301
		222.11		2.215E-01	3.456E-01	5.738E-01	5.819E-02	0.386
	+	1121.30		8.020E-01	3.231E-01	4.129E-01	3.547E-02	1.943
		1189.05		4.632E-01	3.867E-01	6.926E-01	5.701E-02	0.669
		1221.41	*	-4.747E-02	2.414E-01	3.925E-01	3.228E-02	-0.121
		1231.02		-1.032E-01	6.073E-01	9.896E-01	8.135E-02	-0.104
IR-192	+	295.96		1.437E+00	2.519E-01	3.285E-01	3.639E-02	4.374
		308.46		-1.410E-02	8.923E-02	1.495E-01	1.634E-02	-0.094
		316.51	*	-1.676E-03	3.422E-02	5.756E-02	6.218E-03	-0.029
		468.07		-2.135E-02	7.357E-02	1.133E-01	1.186E-02	-0.188
HG-203		70.83		4.385E-01	7.764E-01	1.150E+00	1.939E-01	0.381
		72.87		1.648E-01	4.828E-01	7.087E-01	1.162E-01	0.233
		279.20	*	4.834E-02	4.162E-02	6.962E-02	7.889E-03	0.694
BI-207		72.81		1.126E-02	9.940E-02	1.447E-01	1.461E-02	0.078
	+	74.97		8.192E-01	1.156E-01	1.446E-01	1.470E-02	5.667
		569.70		-3.747E-03	3.327E-02	5.288E-02	5.656E-03	-0.071
		1063.66	*	-3.170E-02	6.075E-02	9.724E-02	8.679E-03	-0.326
		1770.23		-9.101E-02	5.168E-01	6.912E-01	5.691E-02	-0.132
PB-211		404.85	*	-2.406E-01	7.152E-01	1.142E+00	5.542E-01	-0.211
		427.09		1.272E-01	1.491E+00	2.464E+00	1.144E+00	0.052
		832.01		-7.709E-01	1.196E+00	1.741E+00	9.078E-01	-0.443
BI-212	+	727.33	*	1.825E+00	9.182E-01	1.275E+00	1.801E-01	1.431

---- Non-Identified Nuclides ----

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		785.37		4.146E-01	3.766E+00	6.248E+00	6.593E-01	0.066
		1620.50		2.346E+00	2.551E+00	4.758E+00	3.955E-01	0.493
RN-219	+	271.23		1.016E+00	3.614E-01	4.407E-01	5.445E-02	2.304
		401.81	*	-1.216E-01	3.991E-01	6.473E-01	9.854E-02	-0.188
RA-223		81.07		1.097E-01	1.389E-01	1.832E-01	1.907E-02	0.599
	+	83.79		2.227E-01	9.301E-02	1.334E-01	1.406E-02	1.669
		94.87		7.306E-01	3.197E-01	5.253E-01	5.838E-02	1.391
		144.24		1.740E-01	5.565E-01	9.284E-01	1.105E-01	0.187
	+	154.21		5.582E-01	4.853E-01	6.083E-01	6.609E-02	0.918
	+	269.46		7.891E-01	2.777E-01	3.559E-01	3.966E-02	2.217
		323.87	*	2.341E-01	6.537E-01	9.945E-01	1.834E-01	0.235
	+	338.28		8.899E+00	2.330E+00	2.580E+00	3.462E-01	3.449
AC-227		79.69		5.353E-01	7.478E-01	1.104E+00	2.005E-01	0.485
		235.96		-9.120E-03	1.548E-01	2.208E-01	2.623E-02	-0.041
		256.23	*	-6.988E-02	2.423E-01	3.805E-01	5.207E-02	-0.184
	+	299.98		1.560E+00	1.211E+00	1.533E+00	2.210E-01	1.018
		304.50		-4.964E-01	1.581E+00	2.303E+00	4.110E-01	-0.216
		334.37		7.666E-01	1.677E+00	2.564E+00	4.281E-01	0.299
TH-227		79.80		9.437E-01	9.872E-01	1.453E+00	3.271E-01	0.650
		235.96		-9.120E-03	1.548E-01	2.208E-01	2.512E-02	-0.041
		256.23	*	-6.988E-02	2.424E-01	3.805E-01	5.734E-02	-0.184
	+	299.98		1.560E+00	1.211E+00	1.533E+00	2.210E-01	1.018
		304.50		-4.964E-01	1.581E+00	2.303E+00	4.110E-01	-0.216
		334.37		7.666E-01	1.677E+00	2.564E+00	4.281E-01	0.299
PA-231		283.69	*	-4.256E-01	1.343E+00	2.071E+00	3.354E-01	-0.205
	+	301.36		1.002E+00	7.774E-01	9.858E-01	1.372E-01	1.017
TH-231		81.07		1.097E-01	1.389E-01	1.832E-01	1.907E-02	0.599
	+	83.79		2.227E-01	9.301E-02	1.334E-01	1.406E-02	1.669
		94.87		7.306E-01	3.197E-01	5.253E-01	5.838E-02	1.391
		144.24		1.740E-01	5.565E-01	9.284E-01	1.105E-01	0.187
	+	154.21		5.582E-01	4.853E-01	6.083E-01	6.609E-02	0.918
	+	269.46		7.891E-01	2.777E-01	3.559E-01	3.966E-02	2.217
		323.87	*	2.341E-01	6.537E-01	9.945E-01	1.834E-01	0.235
	+	338.28		8.899E+00	2.330E+00	2.580E+00	3.462E-01	3.449
PA-233	+	300.13		7.061E-01	5.508E-01	6.956E-01	1.135E-01	1.015
		311.90	*	8.910E-03	5.627E-02	9.581E-02	1.058E-02	0.093
		340.48		1.637E+00	8.064E-01	1.181E+00	2.923E-01	1.387
PA-234		94.67		2.852E-01	1.254E-01	2.009E-01	2.861E-02	1.419
		98.44		6.371E-02	7.308E-02	1.070E-01	6.023E-02	0.595
		111.00		-9.676E-02	1.336E-01	2.194E-01	3.244E-02	-0.441
		131.20		-2.451E-02	8.555E-02	1.420E-01	1.734E-02	-0.173
		569.50		-4.927E-02	2.941E-01	4.654E-01	4.978E-02	-0.106
		733.00		-1.185E-01	4.481E-01	6.560E-01	1.519E-01	-0.181
		880.51		2.903E-01	2.833E-01	5.032E-01	4.869E-02	0.577
		883.24		-2.571E-01	3.628E-01	4.805E-01	3.236E-01	-0.535
		926.50		-4.820E-03	1.899E-01	2.985E-01	7.630E-02	-0.016
		946.00	*	-3.081E-04	3.454E-01	5.585E-01	1.068E-01	-0.001
		949.00		1.355E-01	5.017E-01	8.303E-01	7.779E-02	0.163
PA-234M		766.42		8.951E+00	1.354E+01	2.203E+01	1.126E+01	0.406

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		1001.03	*	7.095E-01	5.451E+00	8.690E+00	9.102E-01	0.082
NP-239		99.53		1.577E-01	1.137E-01	1.982E-01	2.257E-02	0.796
		103.37		-3.045E-02	6.950E-02	1.165E-01	1.354E-02	-0.261
		106.12		5.028E-02	6.245E-02	1.087E-01	1.282E-02	0.463
		117.23	*	-2.668E-01	2.887E-01	4.669E-01	5.857E-02	-0.572
		228.18		-2.157E-02	2.015E-01	3.230E-01	3.315E-02	-0.067
		277.60		1.933E-01	1.775E-01	2.953E-01	3.289E-02	0.655
AM-241		59.54	*	-6.442E-03	5.261E-02	7.643E-02	7.941E-03	-0.084
CM-247		278.00		1.195E+00	7.503E-01	1.270E+00	1.415E-01	0.942
		287.50		2.298E-01	1.213E+00	1.938E+00	2.152E-01	0.119
		402.40	*	-1.448E-02	3.723E-02	6.010E-02	5.539E-03	-0.241
CF-249		252.80		-1.284E-01	8.989E-01	1.425E+00	1.529E-01	-0.090
		333.37		1.406E-01	1.855E-01	2.731E-01	2.872E-02	0.515
		388.16	*	3.611E-02	3.962E-02	6.890E-02	6.336E-03	0.524
CF-251		177.52	*	-3.415E-02	1.086E-01	1.759E-01	1.614E-02	-0.194
		227.38		-1.040E-02	3.277E-01	5.276E-01	5.407E-02	-0.020
		285.41		-4.839E-01	2.058E+00	3.207E+00	3.566E-01	-0.151

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248526001      *
* Acquisition date : 19-MAR-2010 20:43:36 Detector SN#     :               *
* Detector ID        : GAM25               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.22      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-FEB-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248526001           Analyst initials: MXR1          *
* Batch Number       : 961099               Sample Quantity : 1.3366E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope      :                *
* LCS DPM          :    0.000             LCS Isotope      :                *
* LCSD DPM         :    0.000             LCSD Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.576E+01	3.522E+00	5.575E-01	0.000E+00
CD-109	4.543E+00	8.738E-01	7.675E-01	0.000E+00
SN-126	4.393E-01	8.449E-02	7.406E-02	0.000E+00
TL-208	6.515E-01	1.084E-01	5.534E-02	0.000E+00
PB-210	1.651E+00	6.436E-01	6.164E-01	0.000E+00
BI-211	4.708E+00	6.619E-01	3.446E-01	0.000E+00
PB-212	2.145E+00	2.660E-01	8.657E-02	0.000E+00
BI-214	1.617E+00	2.499E-01	1.048E-01	0.000E+00
PB-214	1.709E+00	2.574E-01	1.254E-01	0.000E+00
RA-224	4.759E+00	1.445E+00	9.289E-01	0.000E+00
RA-226	1.617E+00	2.499E-01	1.048E-01	0.000E+00
AC-228	2.387E+00	4.322E-01	2.442E-01	0.000E+00
RA-228	2.387E+00	4.322E-01	2.442E-01	0.000E+00
TH-228	2.145E+00	2.660E-01	8.657E-02	0.000E+00
TH-229	-2.339E-02	4.442E-01	7.669E-01	0.000E+00
TH-232	2.387E+00	4.322E-01	2.442E-01	0.000E+00
TH-234	1.538E+00	9.258E-01	8.110E-01	0.000E+00
U-235	-2.476E-02	1.636E-01	2.857E-01	0.000E+00
NP-237	1.311E+00	3.689E-01	2.371E-01	0.000E+00
U-238	1.538E+00	9.258E-01	8.110E-01	0.000E+00
ANH-511	1.527E-01	6.578E-02	4.431E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.946E-02	3.342E-01	5.592E-01	0.000E+00	NOT IDENT.
NA-22	-1.771E-02	5.120E-02	8.363E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.098E+09	0.000E+00	0.000E+00	SHORT HLIF
SC-46	3.852E-05	4.685E-02	7.863E-02	0.000E+00	FAIL ABUN
V-48	-4.263E-02	1.091E-01	1.742E-01	0.000E+00	NOT IDENT.
CR-51	-2.134E-01	4.145E-01	7.137E-01	0.000E+00	NOT IDENT.

MN-54	3.742E-02	4.111E-02	7.397E-02	0.000E+00	NOT IDENT.
CO-56	-1.965E-04	4.119E-02	6.948E-02	0.000E+00	NOT IDENT.
CO-57	-2.910E-03	1.919E-02	3.438E-02	0.000E+00	NOT IDENT.
CO-58	-1.997E-02	4.461E-02	7.276E-02	0.000E+00	NOT IDENT.
FE-59	-5.837E-02	1.175E-01	1.933E-01	0.000E+00	NOT IDENT.
CO-60	-1.644E-02	4.667E-02	7.542E-02	0.000E+00	NOT IDENT.
ZN-65	-1.361E-02	1.174E-01	1.707E-01	0.000E+00	NOT IDENT.
SE-75	1.695E-02	4.389E-02	7.512E-02	0.000E+00	NOT IDENT.
SR-85	4.462E-02	4.295E-02	6.931E-02	0.000E+00	NOT IDENT.
Y-88	7.491E-03	3.724E-02	6.469E-02	0.000E+00	NOT IDENT.
Y-91	2.727E+01	2.788E+01	5.038E+01	0.000E+00	NOT IDENT.
NB-94	-3.605E-03	3.658E-02	6.261E-02	0.000E+00	NOT IDENT.
NB-95	-1.351E-02	5.125E-02	8.588E-02	0.000E+00	NOT IDENT.
NB-95M	-6.003E-02	1.345E-01	1.974E-01	0.000E+00	NOT IDENT.
ZR-95	-2.862E-02	8.839E-02	1.475E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	8.194E+01	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.604E+25	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.630E-02	4.868E-02	7.616E-02	0.000E+00	FAIL ABUN
RH-106	-4.713E-02	3.299E-01	5.703E-01	0.000E+00	NOT IDENT.
RU-106	-4.713E-02	3.298E-01	5.703E-01	0.000E+00	NOT IDENT.
AG-108M	1.872E-03	2.761E-02	4.762E-02	0.000E+00	NOT IDENT.
AG-110M	-4.345E-02	3.921E-02	6.246E-02	0.000E+00	NOT IDENT.
SN-113	-4.363E-02	4.634E-02	7.574E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.094E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-3.190E-03	7.419E-02	1.169E-01	0.000E+00	NOT IDENT.
TE-123M	-2.071E-02	2.602E-02	4.199E-02	0.000E+00	NOT IDENT.
SB-124	4.762E-02	7.373E-02	1.395E-01	0.000E+00	NOT IDENT.
SB-125	5.241E-02	8.664E-02	1.544E-01	0.000E+00	FAIL ABUN
TE-125M	2.288E+00	7.599E+00	1.395E+01	0.000E+00	NOT IDENT.
I-126	-3.413E-01	3.673E-01	5.949E-01	0.000E+00	NOT IDENT.
SB-126	8.782E-02	2.476E-01	3.834E-01	0.000E+00	NOT IDENT.
SB-127	-2.638E-01	5.228E+00	9.000E+00	0.000E+00	NOT IDENT.
I-131	-8.983E-02	2.133E-01	3.639E-01	0.000E+00	NOT IDENT.
TE-132	-3.411E-01	3.203E+00	5.427E+00	0.000E+00	NOT IDENT.
BA-133	-1.954E-03	4.535E-02	6.972E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.969E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.237E-02	5.185E-02	9.395E-02	0.000E+00	NOT IDENT.
CS-135	6.567E-02	1.810E-01	2.757E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.550E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.570E-01	1.748E-01	2.780E-01	0.000E+00	FAIL ABUN
BA-137M	-4.158E-02	4.236E-02	7.196E-02	0.000E+00	NOT IDENT.
CS-137	-4.392E-02	4.475E-02	7.602E-02	0.000E+00	NOT IDENT.
CE-139	-3.378E-03	2.508E-02	4.376E-02	0.000E+00	NOT IDENT.
BA-140	1.380E-01	3.983E-01	6.812E-01	0.000E+00	NOT IDENT.
LA-140	-1.824E-01	1.472E-01	2.093E-01	0.000E+00	FAIL ABUN
CE-141	-5.060E-02	6.047E-02	1.022E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.081E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.390E-01	1.596E-01	2.727E-01	0.000E+00	NOT IDENT.
PM-144	-6.136E-03	3.774E-02	6.438E-02	0.000E+00	NOT IDENT.
PR-144	-4.569E-01	2.836E+00	4.837E+00	0.000E+00	NOT IDENT.
PM-146	2.349E-02	4.274E-02	7.542E-02	0.000E+00	NOT IDENT.
ND-147	5.941E-01	8.890E-01	1.559E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	8.265E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-3.557E-03	1.023E-01	1.580E-01	0.000E+00	FAIL ABUN
GD-153	-7.134E-02	6.443E-02	9.963E-02	0.000E+00	NOT IDENT.
EU-154	-4.227E-02	1.441E-01	2.365E-01	0.000E+00	NOT IDENT.
EU-155	8.287E-02	7.688E-02	1.440E-01	0.000E+00	FAIL ABUN
TB-160	3.389E-02	1.522E-01	2.609E-01	0.000E+00	FAIL ABUN
HO-166M	-4.516E-02	6.424E-02	1.045E-01	0.000E+00	FAIL ABUN
TA-182	-4.747E-02	2.365E-01	3.945E-01	0.000E+00	FAIL ABUN
IR-192	-1.676E-03	3.353E-02	5.927E-02	0.000E+00	FAIL ABUN
HG-203	4.834E-02	4.079E-02	7.184E-02	0.000E+00	NOT IDENT.
BI-207	-3.170E-02	5.953E-02	9.799E-02	0.000E+00	FAIL ABUN
PB-211	-2.406E-01	7.009E-01	1.171E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.998E-01	1.294E+00	0.000E+00	FAIL ABUN
RN-219	-1.216E-01	3.912E-01	6.637E-01	0.000E+00	FAIL ABUN
RA-223	2.341E-01	6.407E-01	1.024E+00	0.000E+00	FAIL ABUN
AC-227	-6.988E-02	2.375E-01	3.933E-01	0.000E+00	FAIL ABUN
TH-227	-6.988E-02	2.375E-01	3.933E-01	0.000E+00	FAIL ABUN
PA-231	-4.256E-01	1.317E+00	2.137E+00	0.000E+00	FAIL ABUN
TH-231	2.341E-01	6.407E-01	1.024E+00	0.000E+00	FAIL ABUN
PA-233	8.910E-03	5.515E-02	9.868E-02	0.000E+00	FAIL ABUN
PA-234	-3.081E-04	3.385E-01	5.639E-01	0.000E+00	NOT IDENT.
PA-234M	7.095E-01	5.342E+00	8.766E+00	0.000E+00	NOT IDENT.
NP-239	-2.668E-01	2.829E-01	4.890E-01	0.000E+00	NOT IDENT.
AM-241	-6.442E-03	5.155E-02	8.096E-02	0.000E+00	NOT IDENT.
CM-247	-1.448E-02	3.648E-02	6.162E-02	0.000E+00	NOT IDENT.
CF-249	3.611E-02	3.883E-02	7.069E-02	0.000E+00	NOT IDENT.

CF-251	-3.415E-02	1.064E-01	1.829E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 22:45:34.41

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248526001.CNF;1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 19-MAR-2010 20:43:36
Sample ID         : G248526001           Sample quantity  : 1.33660E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 961099               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1505	10.66*	1.108E+00	3.576E+01	3.576E+01	10.05
CD-109	88.03	544	3.70*	9.403E+00	4.393E+00	4.543E+00	19.63
SN-126	64.28	198	9.60	9.779E+00	5.929E-01	5.929E-01	60.54
	86.94	544	8.90	9.403E+00	1.826E+00	1.826E+00	44.96
	87.57	544	37.00*	9.403E+00	4.393E-01	4.393E-01	19.63
TL-208	277.37	------	6.60	4.738E+00	------ Line Not Found		------
	583.19	492	85.00*	2.496E+00	6.515E-01	6.515E-01	16.98
	860.56	73	12.50	1.765E+00	9.295E-01	9.295E-01	42.89
PB-210	46.54	229	4.25*	9.181E+00	1.648E+00	1.651E+00	39.79
BI-211	72.87	------	1.23	9.724E+00	------ Line Not Found		------
	351.06	842	12.92*	3.886E+00	4.708E+00	4.708E+00	14.35
PB-212	74.82	1008	10.28	9.694E+00	2.841E+00	2.841E+00	17.14
	77.11	1611	17.10	9.651E+00	2.741E+00	2.741E+00	12.10
	238.63	1778	43.60*	5.339E+00	2.145E+00	2.145E+00	12.66
	300.09	74	3.30	4.444E+00	1.419E+00	1.419E+00	77.31
BI-214	609.32	629	45.49*	2.401E+00	1.617E+00	1.617E+00	15.78
	1120.29	122	14.92	1.398E+00	1.638E+00	1.638E+00	40.84
	1764.49	101	15.30	9.413E-01	1.969E+00	1.969E+00	26.69
PB-214	74.82	1008	5.80	9.694E+00	5.036E+00	5.036E+00	16.19
	77.11	1611	9.70	9.651E+00	4.832E+00	4.832E+00	14.64
	242.00	368	7.25	5.291E+00	2.691E+00	2.692E+00	31.53
	295.22	536	18.42	4.503E+00	1.815E+00	1.815E+00	18.67
	351.93	842	35.60*	3.886E+00	1.709E+00	1.709E+00	15.37
RA-224	240.99	368	4.10*	5.291E+00	4.759E+00	4.759E+00	30.99
RA-226	609.32	629	45.49*	2.401E+00	1.617E+00	1.617E+00	15.78
	1120.29	122	14.92	1.398E+00	1.638E+00	1.638E+00	40.84
	1764.49	101	15.30	9.413E-01	1.969E+00	1.969E+00	26.69
AC-228	338.32	362	11.27	4.019E+00	2.243E+00	2.243E+00	47.75
	911.20	368	25.80*	1.678E+00	2.387E+00	2.387E+00	18.48
	968.97	194	15.80	1.589E+00	2.165E+00	2.165E+00	32.92
RA-228	338.32	362	11.27	4.019E+00	2.243E+00	2.243E+00	47.75
	911.20	368	25.80*	1.678E+00	2.387E+00	2.387E+00	18.48

Sample ID : G248526001 Acquisition date : 19-MAR-2010 20:43:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	194	15.80	1.589E+00	2.165E+00	2.165E+00	32.92
TH-228	74.82	1008	10.28	9.694E+00	2.841E+00	2.841E+00	14.16
	77.11	1611	17.10	9.651E+00	2.741E+00	2.741E+00	12.10
	238.63	1778	43.60*	5.339E+00	2.145E+00	2.145E+00	12.66
	300.09	74	3.30	4.444E+00	1.419E+00	1.419E+00	98.05
TH-229	85.43	186	14.70	9.487E+00	3.742E-01	3.742E-01	41.77
	88.47	544	24.00	9.403E+00	6.773E-01	6.773E-01	19.63
	193.51	------	4.41*	6.239E+00	------	Line Not Found	------
	210.85	180	2.80	5.894E+00	3.063E+00	3.063E+00	37.24
TH-232	338.32	362	11.27	4.019E+00	2.243E+00	2.243E+00	24.79
	911.20	368	25.80*	1.678E+00	2.387E+00	2.387E+00	18.48
	968.97	194	15.80	1.589E+00	2.165E+00	2.165E+00	32.92
TH-234	63.29	198	3.70*	9.779E+00	1.538E+00	1.538E+00	61.41
	92.59	426	4.23	9.237E+00	3.061E+00	3.061E+00	31.61
U-235	89.96	352	3.47	9.323E+00	3.052E+00	3.052E+00	34.81
	93.35	426	5.60	9.237E+00	2.312E+00	2.312E+00	32.32
	143.76	------	10.96*	7.568E+00	------	Line Not Found	------
	163.33	------	5.08	6.998E+00	------	Line Not Found	------
	185.72	240	57.20	6.417E+00	1.835E-01	1.835E-01	41.97
	205.31	------	5.01	5.979E+00	------	Line Not Found	------
NP-237	86.48	544	12.40*	9.403E+00	1.311E+00	1.311E+00	28.72
	95.86	------	2.68	9.143E+00	------	Line Not Found	------
U-238	63.29	198	3.70*	9.779E+00	1.538E+00	1.538E+00	61.41
	92.59	426	4.23	9.237E+00	3.061E+00	3.061E+00	24.20
ANH-511	511.00	153	100.00*	2.808E+00	1.527E-01	1.527E-01	43.96

Flag: "*" = Keyline

Sample ID : G248526001 Acquisition date : 19-MAR-2010 20:43:36

Total number of lines in spectrum 33
Number of unidentified lines 2
Number of lines tentatively identified by NID 31 93.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.576E+01	3.576E+01	0.359E+01	10.05	
CD-109	461.40D	1.03	4.393E+00	4.543E+00	0.892E+00	19.63	
SN-126	2.30E+05Y	1.00	4.393E-01	4.393E-01	0.862E-01	19.63	
TL-208	1.41E+10Y	1.00	6.515E-01	6.515E-01	1.106E-01	16.98	
PB-210	22.20Y	1.00	1.648E+00	1.651E+00	0.657E+00	39.79	
BI-211	7.04E+08Y	1.00	4.708E+00	4.708E+00	0.675E+00	14.35	
PB-212	1.41E+10Y	1.00	2.145E+00	2.145E+00	0.271E+00	12.66	
BI-214	1600.00Y	1.00	1.617E+00	1.617E+00	0.255E+00	15.78	
PB-214	1600.00Y	1.00	1.709E+00	1.709E+00	0.263E+00	15.37	
RA-224	1.41E+10Y	1.00	4.759E+00	4.759E+00	1.475E+00	30.99	
RA-226	1600.00Y	1.00	1.617E+00	1.617E+00	0.255E+00	15.78	
AC-228	1.41E+10Y	1.00	2.387E+00	2.387E+00	0.441E+00	18.48	
RA-228	1.41E+10Y	1.00	2.387E+00	2.387E+00	0.441E+00	18.48	
TH-228	1.41E+10Y	1.00	2.145E+00	2.145E+00	0.271E+00	12.66	
TH-229	7340.00Y	1.00	6.773E-01	6.773E-01	1.329E-01	19.63	K
TH-232	1.41E+10Y	1.00	2.387E+00	2.387E+00	0.441E+00	18.48	
TH-234	4.47E+09Y	1.00	1.538E+00	1.538E+00	0.945E+00	61.41	
U-235	7.04E+08Y	1.00	1.835E-01	1.835E-01	0.770E-01	41.97	K
NP-237	2.14E+06Y	1.00	1.311E+00	1.311E+00	0.376E+00	28.72	
U-238	4.47E+09Y	1.00	1.538E+00	1.538E+00	0.945E+00	61.41	
ANH-511	1.00E+09Y	1.00	1.527E-01	1.527E-01	0.671E-01	43.96	
			---	---			
	Total Activity :		7.415E+01	7.431E+01			

Grand Total Activity : 7.415E+01 7.431E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248526001 Acquisition date : 19-MAR-2010 20:43:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	154.02	82	384	0.99	307.59	305	8	1.14E-02	86.3	7.26E+00	T
0	270.30	189	224	1.63	540.13	536	10	2.62E-02	33.4	4.84E+00	T
0	327.45	106	165	1.46	654.42	650	10	1.47E-02	49.3	4.13E+00	T
0	462.61	77	90	1.49	924.71	921	8	1.07E-02	48.5	3.06E+00	T
0	727.41	89	99	1.39	1454.30	1448	11	1.23E-02	48.3	2.05E+00	T
0	934.76	39	50	1.15	1869.01	1863	10	5.48E-03	74.2	1.64E+00	
1	964.63	59	75	1.97	1928.75	1922	22	8.14E-03	65.8	1.60E+00	T
0	1378.22	52	39	1.82	2755.95	2749	15	7.27E-03	58.2	1.17E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 22:45:38.13

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248526001.CNF;1  *
* Acquisition date : 19-MAR-2010 20:43:36  Detector SN#     :               *
* Detector ID      : GAM25                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.22         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-FEB-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G248526001            Analyst initials: MXR1           *
* Batch Number     : 961099                Sample Quantity : 1.33660E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.576E+01	3.594E+00	5.565E-01	4.739E-02	64.266
CD-109	4.543E+00	8.917E-01	7.293E-01	7.837E-02	6.230
SN-126	4.393E-01	8.622E-02	7.037E-02	7.546E-03	6.243
TL-208	6.515E-01	1.106E-01	5.432E-02	6.119E-03	11.993
PB-210	1.651E+00	6.567E-01	5.796E-01	5.936E-02	2.848
BI-211	4.708E+00	6.754E-01	3.352E-01	3.533E-02	14.043
PB-212	2.145E+00	2.714E-01	8.367E-02	9.559E-03	25.635
BI-214	1.617E+00	2.550E-01	1.030E-01	1.247E-02	15.695
PB-214	1.709E+00	2.626E-01	1.220E-01	1.449E-02	14.007
RA-224	4.759E+00	1.475E+00	8.979E-01	9.436E-02	5.300
RA-226	1.617E+00	2.550E-01	1.030E-01	1.247E-02	15.695
AC-228	2.387E+00	4.411E-01	2.417E-01	2.954E-02	9.876
RA-228	2.387E+00	4.411E-01	2.417E-01	2.954E-02	9.876
TH-228	2.145E+00	2.714E-01	8.367E-02	9.559E-03	25.635
TH-229	6.773E-01	1.329E-01	7.385E-01	7.043E-02	0.917
TH-232	2.387E+00	4.411E-01	2.417E-01	2.954E-02	9.876
TH-234	1.538E+00	9.447E-01	7.664E-01	1.455E-01	2.007
U-235	1.835E-01	7.702E-02	2.738E-01	5.029E-02	0.670

Sample ID : G248526001 Acquisition date : 19-MAR-2010 20:43:36

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.311E+00	3.765E-01	2.253E-01	5.299E-02	5.819
U-238	1.538E+00	9.447E-01	7.664E-01	1.455E-01	2.007
ANH-511	1.527E-01	6.712E-02	4.340E-02	4.467E-03	3.518

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.946E-02		3.410E-01	5.471E-01	5.791E-02	-0.127
NA-22	-1.771E-02		5.224E-02	8.327E-02	6.828E-03	-0.213
NA-24	-3.806E+02		1.070E+03	Half-Life too short		
SC-46	3.852E-05		4.781E-02	7.778E-02	7.448E-03	0.000
V-48	-4.263E-02		1.113E-01	1.727E-01	1.600E-02	-0.247
CR-51	-2.134E-01		4.230E-01	6.933E-01	7.695E-02	-0.308
MN-54	3.742E-02		4.195E-02	7.308E-02	7.416E-03	0.512
CO-56	-1.965E-04		4.203E-02	6.867E-02	6.890E-03	-0.003
CO-57	-2.910E-03		1.958E-02	3.285E-02	4.236E-03	-0.089
CO-58	-1.997E-02		4.552E-02	7.185E-02	7.455E-03	-0.278
FE-59	-5.837E-02		1.199E-01	1.920E-01	1.808E-02	-0.304
CO-60	-1.644E-02		4.762E-02	7.515E-02	6.104E-03	-0.219
ZN-65	-1.361E-02		1.198E-01	1.696E-01	1.465E-02	-0.080
SE-75	1.695E-02		4.478E-02	7.273E-02	7.972E-03	0.233
SR-85	4.462E-02		4.382E-02	6.789E-02	7.004E-03	0.657
Y-88	7.491E-03		3.800E-02	6.485E-02	5.299E-03	0.116
Y-91	2.727E+01		2.845E+01	5.011E+01	4.124E+00	0.544
NB-94	-3.605E-03		3.732E-02	6.167E-02	6.773E-03	-0.058
NB-95	-1.351E-02		5.230E-02	8.473E-02	9.050E-03	-0.159
NB-95M	-6.003E-02		1.373E-01	1.907E-01	2.189E-02	-0.315
ZR-95	-2.862E-02		9.019E-02	1.454E-01	1.669E-02	-0.197
MO-99	2.071E-05		4.180E-05	Half-Life too short		
TC-99M	1.311E+19		8.185E+18	Half-Life too short		
RU-103	-4.630E-02		4.967E-02	7.456E-02	1.117E-02	-0.621
RH-106	-4.713E-02		3.366E-01	5.605E-01	8.339E-02	-0.084
RU-106	-4.713E-02		3.366E-01	5.605E-01	6.138E-02	-0.084
AG-108M	1.872E-03		2.818E-02	4.651E-02	4.569E-03	0.040
AG-110M	-4.345E-02		4.001E-02	6.145E-02	6.925E-03	-0.707
SN-113	-4.363E-02		4.729E-02	7.384E-02	6.896E-03	-0.591
CD-115	-2.575E-06		5.580E-05	Half-Life too short		
SN-117M	-3.190E-03		7.571E-02	1.121E-01	1.089E-02	-0.028
TE-123M	-2.071E-02		2.656E-02	4.030E-02	3.913E-03	-0.514
SB-124	4.762E-02		7.524E-02	1.397E-01	1.210E-02	0.341
SB-125	5.241E-02		8.841E-02	1.508E-01	1.456E-02	0.348
TE-125M	2.288E+00		7.754E+00	1.330E+01	1.785E+00	0.172
I-126	-3.413E-01		3.748E-01	5.854E-01	6.481E-02	-0.583
SB-126	8.782E-02		2.527E-01	3.778E-01	4.123E-02	0.232
SB-127	-2.638E-01		5.334E+00	8.861E+00	1.362E+00	-0.030
I-131	-8.983E-02		2.176E-01	3.543E-01	3.654E-02	-0.254
TE-132	-3.411E-01		3.269E+00	5.241E+00	9.617E-01	-0.065

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-1.954E-03		4.627E-02	6.785E-02	9.464E-03	-0.029
I-133	6.484E-01		1.004E+00	Half-Life too short		
CS-134	5.237E-02		5.291E-02	9.275E-02	9.764E-03	0.565
CS-135	6.567E-02		1.847E-01	2.670E-01	3.223E-02	0.246
I-135	-2.730E+17		3.342E+17	Half-Life too short		
CS-136	-1.570E-01		1.783E-01	2.758E-01	2.582E-02	-0.569
BA-137M	-4.158E-02		4.322E-02	7.081E-02	7.844E-03	-0.587
CS-137	-4.392E-02		4.566E-02	7.480E-02	8.296E-03	-0.587
CE-139	-3.378E-03		2.559E-02	4.203E-02	3.747E-03	-0.080
BA-140	1.380E-01		4.065E-01	6.677E-01	2.299E-01	0.207
LA-140	-1.824E-01		1.502E-01	2.092E-01	1.740E-02	-0.872
CE-141	-5.060E-02		6.170E-02	9.797E-02	1.090E-02	-0.516
CE-143	1.860E-02		3.613E-03	Half-Life too short		
CE-144	-1.390E-01		1.629E-01	2.610E-01	4.550E-02	-0.533
PM-144	-6.136E-03		3.851E-02	6.340E-02	6.978E-03	-0.097
PR-144	-4.569E-01		2.894E+00	4.764E+00	5.241E-01	-0.096
PM-146	2.349E-02		4.361E-02	7.372E-02	8.518E-03	0.319
ND-147	5.941E-01		9.071E-01	1.528E+00	2.456E-01	0.389
PM-149	1.521E-04		4.217E-04	Half-Life too short		
EU-152	-3.557E-03		1.044E-01	1.537E-01	1.650E-02	-0.023
GD-153	-7.134E-02		6.574E-02	9.483E-02	1.068E-02	-0.752
EU-154	-4.227E-02		1.470E-01	2.354E-01	2.603E-02	-0.180
EU-155	8.287E-02		7.845E-02	1.372E-01	1.622E-02	0.604
TB-160	3.389E-02		1.553E-01	2.581E-01	2.501E-02	0.131
HO-166M	-4.516E-02		6.555E-02	1.030E-01	1.128E-02	-0.438
TA-182	-4.747E-02		2.414E-01	3.925E-01	3.228E-02	-0.121
IR-192	-1.676E-03		3.422E-02	5.756E-02	6.218E-03	-0.029
HG-203	4.834E-02		4.162E-02	6.962E-02	7.889E-03	0.694
BI-207	-3.170E-02		6.075E-02	9.724E-02	8.679E-03	-0.326
PB-211	-2.406E-01		7.152E-01	1.142E+00	5.542E-01	-0.211
BI-212	1.825E+00	+	9.182E-01	1.275E+00	1.801E-01	1.431
RN-219	-1.216E-01		3.991E-01	6.473E-01	9.854E-02	-0.188
RA-223	2.341E-01		6.537E-01	9.945E-01	1.834E-01	0.235
AC-227	-6.988E-02		2.423E-01	3.805E-01	5.207E-02	-0.184
TH-227	-6.988E-02		2.424E-01	3.805E-01	5.734E-02	-0.184
PA-231	-4.256E-01		1.343E+00	2.071E+00	3.354E-01	-0.205
TH-231	2.341E-01		6.537E-01	9.945E-01	1.834E-01	0.235
PA-233	8.910E-03		5.627E-02	9.581E-02	1.058E-02	0.093
PA-234	-3.081E-04		3.454E-01	5.585E-01	1.068E-01	-0.001
PA-234M	7.095E-01		5.451E+00	8.690E+00	9.102E-01	0.082
NP-239	-2.668E-01		2.887E-01	4.669E-01	5.857E-02	-0.572
AM-241	-6.442E-03		5.261E-02	7.643E-02	7.941E-03	-0.084
CM-247	-1.448E-02		3.723E-02	6.010E-02	5.539E-03	-0.241
CF-249	3.611E-02		3.962E-02	6.890E-02	6.336E-03	0.524
CF-251	-3.415E-02		1.086E-01	1.759E-01	1.614E-02	-0.194

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248526001           *
* Acquisition date : 19-MAR-2010 20:43:36 Detector SN#    :                *
* Detector ID      : GAM25                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.22     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 25-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248526001           Analyst initials: MXR1           *
* Batch Number     : 961099               Sample Quantity : 1.3366E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.576E+01	3.522E+00	2.789E-01	1.797E+00
CD-109	4.543E+00	8.738E-01	3.840E-01	4.458E-01
SN-126	4.393E-01	8.449E-02	3.705E-02	4.311E-02
TL-208	6.515E-01	1.084E-01	2.768E-02	5.532E-02
PB-210	1.651E+00	6.436E-01	3.084E-01	3.284E-01
BI-211	4.708E+00	6.619E-01	1.724E-01	3.377E-01
PB-212	2.145E+00	2.660E-01	4.331E-02	1.357E-01
BI-214	1.617E+00	2.499E-01	5.245E-02	1.275E-01
PB-214	1.709E+00	2.574E-01	6.272E-02	1.313E-01
RA-224	4.759E+00	1.445E+00	4.647E-01	7.375E-01
RA-226	1.617E+00	2.499E-01	5.245E-02	1.275E-01
AC-228	2.387E+00	4.322E-01	1.222E-01	2.205E-01
RA-228	2.387E+00	4.322E-01	1.222E-01	2.205E-01
TH-228	2.145E+00	2.660E-01	4.331E-02	1.357E-01
TH-229	-2.339E-02	4.442E-01	3.837E-01	2.267E-01
TH-232	2.387E+00	4.322E-01	1.222E-01	2.205E-01
TH-234	1.538E+00	9.258E-01	4.057E-01	4.724E-01
U-235	-2.476E-02	1.636E-01	1.430E-01	8.348E-02
NP-237	1.311E+00	3.689E-01	1.186E-01	1.882E-01
U-238	1.538E+00	9.258E-01	4.057E-01	4.724E-01
ANH-511	1.527E-01	6.578E-02	2.217E-02	3.356E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.946E-02	3.342E-01	2.798E-01	1.705E-01	NOT IDENT.
NA-22	-1.771E-02	5.120E-02	4.184E-02	2.612E-02	NOT IDENT.
NA-24	-3.806E+08	2.098E+09	0.000E+00	1.070E+09	SHORT HLIF
SC-46	3.852E-05	4.685E-02	3.934E-02	2.390E-02	FAIL ABUN
V-48	-4.263E-02	1.091E-01	8.717E-02	5.564E-02	NOT IDENT.
CR-51	-2.134E-01	4.145E-01	3.571E-01	2.115E-01	NOT IDENT.

MN-54	3.742E-02	4.111E-02	3.701E-02	2.098E-02	NOT IDENT.
CO-56	-1.965E-04	4.119E-02	3.476E-02	2.101E-02	NOT IDENT.
CO-57	-2.910E-03	1.919E-02	1.720E-02	9.792E-03	NOT IDENT.
CO-58	-1.997E-02	4.461E-02	3.640E-02	2.276E-02	NOT IDENT.
FE-59	-5.837E-02	1.175E-01	9.673E-02	5.994E-02	NOT IDENT.
CO-60	-1.644E-02	4.667E-02	3.773E-02	2.381E-02	NOT IDENT.
ZN-65	-1.361E-02	1.174E-01	8.540E-02	5.988E-02	NOT IDENT.
SE-75	1.695E-02	4.389E-02	3.758E-02	2.239E-02	NOT IDENT.
SR-85	4.462E-02	4.295E-02	3.467E-02	2.191E-02	NOT IDENT.
Y-88	7.491E-03	3.724E-02	3.236E-02	1.900E-02	NOT IDENT.
Y-91	2.727E+01	2.788E+01	2.520E+01	1.422E+01	NOT IDENT.
NB-94	-3.605E-03	3.658E-02	3.133E-02	1.866E-02	NOT IDENT.
NB-95	-1.351E-02	5.125E-02	4.297E-02	2.615E-02	NOT IDENT.
NB-95M	-6.003E-02	1.345E-01	9.873E-02	6.863E-02	NOT IDENT.
ZR-95	-2.862E-02	8.839E-02	7.378E-02	4.510E-02	NOT IDENT.
MO-99	2.071E+01	8.194E+01	0.000E+00	4.180E+01	SHORT HLIF
TC-99M	1.311E+25	1.604E+25	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.630E-02	4.868E-02	3.810E-02	2.484E-02	FAIL ABUN
RH-106	-4.713E-02	3.299E-01	2.853E-01	1.683E-01	NOT IDENT.
RU-106	-4.713E-02	3.298E-01	2.853E-01	1.683E-01	NOT IDENT.
AG-108M	1.872E-03	2.761E-02	2.383E-02	1.409E-02	NOT IDENT.
AG-110M	-4.345E-02	3.921E-02	3.125E-02	2.001E-02	NOT IDENT.
SN-113	-4.363E-02	4.634E-02	3.789E-02	2.364E-02	NOT IDENT.
CD-115	-2.575E+00	1.094E+02	0.000E+00	5.580E+01	SHORT HLIF
SN-117M	-3.190E-03	7.419E-02	5.846E-02	3.785E-02	NOT IDENT.
TE-123M	-2.071E-02	2.602E-02	2.101E-02	1.328E-02	NOT IDENT.
SB-124	4.762E-02	7.373E-02	6.981E-02	3.762E-02	NOT IDENT.
SB-125	5.241E-02	8.664E-02	7.726E-02	4.420E-02	FAIL ABUN
TE-125M	2.288E+00	7.599E+00	6.977E+00	3.877E+00	NOT IDENT.
I-126	-3.413E-01	3.673E-01	2.976E-01	1.874E-01	NOT IDENT.
SB-126	8.782E-02	2.476E-01	1.918E-01	1.263E-01	NOT IDENT.
SB-127	-2.638E-01	5.228E+00	4.503E+00	2.667E+00	NOT IDENT.
I-131	-8.983E-02	2.133E-01	1.820E-01	1.088E-01	NOT IDENT.
TE-132	-3.411E-01	3.203E+00	2.715E+00	1.634E+00	NOT IDENT.
BA-133	-1.954E-03	4.535E-02	3.488E-02	2.314E-02	NOT IDENT.
I-133	6.484E+05	1.969E+06	0.000E+00	1.004E+06	SHORT HLIF
CS-134	5.237E-02	5.185E-02	4.700E-02	2.646E-02	NOT IDENT.
CS-135	6.567E-02	1.810E-01	1.379E-01	9.237E-02	NOT IDENT.
I-135	-2.730E+23	6.550E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.570E-01	1.748E-01	1.391E-01	8.916E-02	FAIL ABUN
BA-137M	-4.158E-02	4.236E-02	3.600E-02	2.161E-02	NOT IDENT.
CS-137	-4.392E-02	4.475E-02	3.803E-02	2.283E-02	NOT IDENT.
CE-139	-3.378E-03	2.508E-02	2.189E-02	1.279E-02	NOT IDENT.
BA-140	1.380E-01	3.983E-01	3.408E-01	2.032E-01	NOT IDENT.
LA-140	-1.824E-01	1.472E-01	1.047E-01	7.511E-02	FAIL ABUN
CE-141	-5.060E-02	6.047E-02	5.115E-02	3.085E-02	NOT IDENT.
CE-143	1.860E+04	7.081E+03	0.000E+00	3.613E+03	SHORT HLIF
CE-144	-1.390E-01	1.596E-01	1.364E-01	8.145E-02	NOT IDENT.
PM-144	-6.136E-03	3.774E-02	3.221E-02	1.926E-02	NOT IDENT.
PR-144	-4.569E-01	2.836E+00	2.420E+00	1.447E+00	NOT IDENT.
PM-146	2.349E-02	4.274E-02	3.773E-02	2.181E-02	NOT IDENT.
ND-147	5.941E-01	8.890E-01	7.801E-01	4.536E-01	FAIL ABUN
PM-149	1.521E+02	8.265E+02	0.000E+00	4.217E+02	SHORT HLIF
EU-152	-3.557E-03	1.023E-01	7.907E-02	5.221E-02	FAIL ABUN
GD-153	-7.134E-02	6.443E-02	4.984E-02	3.287E-02	NOT IDENT.
EU-154	-4.227E-02	1.441E-01	1.183E-01	7.352E-02	NOT IDENT.
EU-155	8.287E-02	7.688E-02	7.204E-02	3.923E-02	FAIL ABUN
TB-160	3.389E-02	1.522E-01	1.305E-01	7.766E-02	FAIL ABUN
HO-166M	-4.516E-02	6.424E-02	5.230E-02	3.278E-02	FAIL ABUN
TA-182	-4.747E-02	2.365E-01	1.974E-01	1.207E-01	FAIL ABUN
IR-192	-1.676E-03	3.353E-02	2.965E-02	1.711E-02	FAIL ABUN
HG-203	4.834E-02	4.079E-02	3.594E-02	2.081E-02	NOT IDENT.
BI-207	-3.170E-02	5.953E-02	4.902E-02	3.037E-02	FAIL ABUN
PB-211	-2.406E-01	7.009E-01	5.859E-01	3.576E-01	NOT IDENT.
BI-212	1.825E+00	8.998E-01	6.473E-01	4.591E-01	FAIL ABUN
RN-219	-1.216E-01	3.912E-01	3.321E-01	1.996E-01	FAIL ABUN
RA-223	2.341E-01	6.407E-01	5.121E-01	3.269E-01	FAIL ABUN
AC-227	-6.988E-02	2.375E-01	1.967E-01	1.212E-01	FAIL ABUN
TH-227	-6.988E-02	2.375E-01	1.967E-01	1.212E-01	FAIL ABUN
PA-231	-4.256E-01	1.317E+00	1.069E+00	6.717E-01	FAIL ABUN
TH-231	2.341E-01	6.407E-01	5.121E-01	3.269E-01	FAIL ABUN
PA-233	8.910E-03	5.515E-02	4.937E-02	2.814E-02	FAIL ABUN
PA-234	-3.081E-04	3.385E-01	2.821E-01	1.727E-01	NOT IDENT.
PA-234M	7.095E-01	5.342E+00	4.386E+00	2.725E+00	NOT IDENT.
NP-239	-2.668E-01	2.829E-01	2.446E-01	1.443E-01	NOT IDENT.
AM-241	-6.442E-03	5.155E-02	4.050E-02	2.630E-02	NOT IDENT.
CM-247	-1.448E-02	3.648E-02	3.083E-02	1.861E-02	NOT IDENT.
CF-249	3.611E-02	3.883E-02	3.537E-02	1.981E-02	NOT IDENT.

CF-251	-3.415E-02	1.064E-01	9.152E-02	5.431E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	299.4243
49.72	318.5103
57.36	0.0000
59.54	418.6689
63.29	450.8852
63.29	450.8852
64.28	452.5238
67.75	450.0518
69.67	532.4720
70.83	475.1825
72.81	522.4109
72.87	522.5156
72.87	522.5156
74.82	468.0644
74.82	468.0644
74.82	468.0644
74.97	468.2928
77.11	471.5333
77.11	471.5333
77.11	471.5333
79.69	410.2246
79.80	391.0534
80.12	391.4415
80.19	391.5255
80.57	391.9853
81.00	348.8928
81.07	348.9675
81.07	348.9675
83.79	379.5494
83.79	379.5494
85.43	405.1408
86.48	406.3921
86.55	406.4752
86.79	350.0576
86.94	350.2137
87.57	350.8550
88.03	351.3209
88.47	351.7672
89.96	353.2666
91.11	354.4171
92.59	343.3529
92.59	343.3529
93.35	344.0762
94.67	345.3263
94.87	305.1624
94.87	305.1624
95.86	336.3295
97.43	375.8445
98.44	294.3553
99.53	287.7129
100.11	300.9391
103.18	346.3035
103.37	331.8562
105.31	322.2619
106.12	329.8442
109.28	318.4727
111.00	328.5713
111.76	311.6181
116.30	272.3976
117.23	293.4396
121.12	279.0186
121.78	280.3331
122.06	289.5000
123.07	282.0452
131.20	326.5253
133.52	315.2221
136.00	274.2360

136.47	297.6884
140.51	0.0000
140.51	0.0000
143.76	296.4532
144.24	279.7789
144.24	279.7789
145.44	312.5449
152.43	278.4961
153.25	294.7407
154.21	303.4344
154.21	303.4344
156.02	300.6060
158.56	287.4982
159.00	301.0970
162.66	225.2781
163.33	265.5807
165.86	259.9132
176.60	248.7822
177.52	252.1692
181.07	0.0000
184.41	277.8229
185.72	264.7197
193.51	244.3989
197.04	240.5775
205.31	233.6787
210.85	271.9624
215.65	253.6871
222.11	233.5233
227.38	233.0750
228.16	236.5638
228.18	236.5705
235.69	256.9888
235.96	257.0798
235.96	257.0798
238.63	222.3885
238.63	222.3885
240.99	223.0782
242.00	223.3735
244.70	202.0718
252.40	212.9884
252.80	199.7089
256.23	207.2904
256.23	207.2904
260.90	0.0000
264.66	185.6711
268.22	235.3640
269.46	222.0490
269.46	222.0490
271.23	199.6948
273.65	166.5086
276.40	203.2122
277.37	191.9488
277.60	191.9997
278.00	175.9849
279.20	168.1679
279.54	205.1063
280.46	219.1695
283.69	162.0943
284.31	184.2222
285.41	174.0143
285.90	0.0000
287.50	179.0776
293.27	0.0000
295.22	167.4948
295.96	172.5647
298.57	173.0612
299.98	149.9812
299.98	149.9812
300.09	149.9993
300.09	149.9993
300.13	150.0071
301.36	151.6260
302.85	153.2909
304.50	157.8281
304.50	157.8281
304.85	161.2067
308.46	148.1502
311.90	142.4221

316.51	159.3151
319.41	175.1465
320.08	177.9781
323.87	146.5684
323.87	146.5684
328.76	157.5097
333.37	124.5428
334.37	133.4674
334.37	133.4674
338.28	150.9197
338.28	150.9197
338.32	150.9247
338.32	150.9247
338.32	150.9247
340.48	154.9365
340.55	154.9468
344.28	154.0322
351.06	166.7855
351.93	166.9248
356.01	154.2812
364.49	159.4767
366.42	0.0000
383.85	137.3399
388.16	124.3664
388.63	115.7391
391.69	160.5364
400.66	138.3967
401.81	138.5332
402.40	144.4590
404.85	140.8491
410.95	123.8813
414.70	130.1873
423.72	118.2446
427.09	116.5769
427.87	105.6830
433.94	107.2041
453.88	111.9537
463.37	101.6976
468.07	112.8767
473.00	110.4907
476.78	84.9141
477.60	100.5078
487.02	82.4235
492.35	0.0000
497.08	130.3158
511.00	87.0280
514.00	86.7847
527.90	0.0000
529.87	0.0000
531.02	83.9271
537.26	88.6039
546.56	0.0000
563.25	102.2154
569.33	104.8195
569.50	104.8311
569.70	104.8427
583.19	77.9105
600.60	94.5000
602.73	105.1367
604.72	106.7658
609.32	74.1904
609.32	74.1904
610.33	74.2344
614.28	83.1826
618.01	82.7598
621.93	96.6241
621.93	96.6241
633.25	90.8427
635.95	92.8233
636.99	91.0408
645.85	85.9592
657.76	118.1788
661.66	106.3128
661.66	106.3128
664.57	0.0000
666.33	123.4181
666.50	113.1451
677.62	85.6147

685.70	92.6071
695.00	102.5684
696.49	101.6996
696.51	101.7022
697.00	105.5313
702.65	102.0340
706.68	86.9610
711.68	97.7292
720.70	73.8029
721.93	0.0000
722.78	72.2772
722.91	72.2827
723.31	72.2974
724.19	80.3670
727.33	85.3271
733.00	88.5737
735.93	81.4980
739.50	0.0000
747.24	72.2078
752.31	87.0640
753.82	78.3203
756.73	97.0616
763.94	116.1015
765.81	106.3600
766.42	91.6150
777.92	0.0000
778.90	99.1138
783.70	88.4155
785.37	98.4296
795.86	75.9406
801.95	78.1657
810.29	85.5146
810.76	77.4831
815.77	61.5257
818.51	72.7137
832.01	90.4428
834.85	70.2095
836.80	0.0000
846.77	59.3353
856.80	82.2109
860.56	64.8488
871.09	64.1161
873.19	54.8594
875.33	0.0000
879.36	57.0840
880.51	44.6513
883.24	76.9322
884.68	72.8198
889.28	71.9227
898.04	69.0551
911.20	64.1811
911.20	64.1811
911.20	64.1811
926.50	58.8284
937.49	67.3690
944.13	68.2641
946.00	69.3831
949.00	64.1250
962.29	80.5884
964.08	82.7957
966.15	82.8652
968.97	82.9583
968.97	82.9583
968.97	82.9583
983.53	70.4352
996.26	86.0340
1001.03	61.0996
1004.73	81.9470
1037.84	64.5455
1038.76	0.0000
1048.07	79.6032
1050.41	62.0710
1050.41	62.0710
1063.66	78.2031
1085.87	59.1292
1099.45	77.3354
1112.07	64.9609
1115.54	78.0502

1120.29	76.5520
1120.29	76.5520
1120.55	76.5586
1121.30	78.2076
1131.51	0.0000
1173.23	72.5677
1177.93	79.4642
1189.05	68.0888
1204.77	75.2893
1221.41	89.4633
1231.02	99.6027
1235.36	117.5183
1238.28	91.9291
1260.41	0.0000
1271.85	61.9420
1274.44	67.9917
1274.54	68.9916
1291.59	57.2969
1298.22	0.0000
1312.11	50.5778
1332.49	53.9446
1365.19	28.7770
1368.63	0.0000
1384.29	33.6622
1408.01	24.9736
1457.56	0.0000
1460.82	25.3477
1489.16	23.4162
1505.03	34.2070
1596.21	40.3515
1620.50	16.9955
1678.03	0.0000
1690.97	8.6469
1764.49	15.3990
1764.49	15.3990
1770.23	13.7061
1771.35	82.2568
1791.20	0.0000
1836.06	12.9197

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248526001

Total Uranium Activity	4.5652E+00	ug/g
Total Uranium Counting Unc.	2.7554E+00	ug/g
Total Uranium Tpu	1.4058E-06	ug/g
Total Uranium Mda	1.2089E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 961099                    SAMPLE ID  : G248526001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   : 25-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 19-MAR-2010 20:43:36.05    SAMPLE ALQT:  133.660 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.148E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.313E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.131E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.522E+00
```

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 13:12:19.58

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061469.CNF;1
Sample date       : 6-MAR-2010 00:00:00. Acquisition date : 20-MAR-2010 11:11:16
Sample ID         : G1202061469          Sample quantity  : 1.38240E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 961099                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 20-MAR-2010 13:12:22

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061469.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 6-MAR-2010 00:00:00 Acquisition date : 20-MAR-2010 11:11:16
Sample ID : G1202061469 Sample quantity : 138.24 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.56 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	9.426E-02	1.450E-01	2.612E-01	2.956E-02	0.361
NA-22		1274.54	*	9.310E-03	1.870E-02	3.360E-02	2.759E-03	0.277
NA-24		1368.63	*	-1.795E-01	1.870E-02	Half-Life too short		
K-40		1460.82	*	-2.250E-02	2.243E-01	4.088E-01	3.535E-02	-0.055
SC-46		889.28	*	-1.295E-02	1.603E-02	2.236E-02	2.202E-03	-0.579
		1120.55		1.607E-02	2.265E-02	4.160E-02	3.547E-03	0.386
V-48		944.13		-1.366E-01	3.401E-01	5.194E-01	5.024E-02	-0.263
		983.53	*	7.674E-03	2.485E-02	4.414E-02	4.187E-03	0.174
		1312.11		8.131E-03	1.970E-02	3.701E-02	3.052E-03	0.220
CR-51		320.08	*	5.011E-02	1.583E-01	2.632E-01	3.818E-02	0.190
MN-54		834.85	*	6.626E-03	1.473E-02	2.669E-02	2.628E-03	0.248
CO-56		846.77	*	-2.389E-03	1.771E-02	2.918E-02	2.875E-03	-0.082
		1037.84		-7.518E-02	1.112E-01	1.520E-01	1.458E-02	-0.495
		1238.28		-1.627E-02	2.643E-02	3.555E-02	2.991E-03	-0.458
		1771.35		-1.277E-01	1.336E-01	1.507E-01	1.240E-02	-0.847
CO-57		122.06	*	-2.695E-03	9.455E-03	1.567E-02	1.326E-03	-0.172
		136.47		-4.773E-02	8.230E-02	1.321E-01	1.240E-02	-0.361
CO-58		810.76	*	4.226E-04	1.589E-02	2.555E-02	2.515E-03	0.017
FE-59		1099.45	*	-2.503E-02	3.219E-02	4.191E-02	3.939E-03	-0.597
		1291.59		-4.963E-02	5.388E-02	6.337E-02	5.981E-03	-0.783
CO-60		1173.23		-1.909E-03	1.801E-02	2.884E-02	2.317E-03	-0.066
		1332.49	*	1.309E-03	1.534E-02	2.544E-02	2.102E-03	0.051
ZN-65		1115.54	*	-1.702E-02	3.190E-02	4.562E-02	3.915E-03	-0.373
SE-75		121.12		-2.253E-02	4.916E-02	8.020E-02	8.788E-03	-0.281
		136.00		-9.724E-03	1.594E-02	2.554E-02	2.249E-03	-0.381
		264.66	*	-9.117E-04	1.924E-02	3.101E-02	4.558E-03	-0.029
		279.54		-2.662E-02	4.948E-02	7.471E-02	1.170E-02	-0.356
		400.66		7.079E-02	1.113E-01	2.009E-01	2.565E-02	0.352
SR-85		514.00	*	-7.521E-02	2.981E-02	3.709E-02	3.962E-03	-2.028
Y-88		898.04		-8.296E-04	1.754E-02	2.915E-02	2.881E-03	-0.028
		1836.06	*	1.113E-02	1.806E-02	3.503E-02	2.844E-03	0.318
Y-91		1204.77	*	2.309E+00	8.706E+00	1.497E+01	1.212E+00	0.154
NB-94		702.65	*	4.577E-03	1.566E-02	2.651E-02	2.546E-03	0.173
		871.09		1.909E-02	1.724E-02	3.333E-02	3.284E-03	0.573

Sample ID : G1202061469 Acquisition date : 20-MAR-2010 11:11:16

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.868E-02	1.845E-02	3.444E-02	3.362E-03	0.542
NB-95M		235.69	*	-6.843E-02	5.271E-02	7.313E-02	1.022E-02	-0.936
ZR-95		724.19		-3.074E-02	4.485E-02	6.410E-02	6.615E-03	-0.480
		756.73	*	-1.087E-02	3.097E-02	4.631E-02	4.886E-03	-0.235
MO-99		140.51		-1.749E+00	8.840E+00	1.360E+01	3.242E+00	-0.129
		181.07		2.225E-01	5.949E+00	9.917E+00	1.950E+00	0.022
		366.42		7.230E-01	4.045E+01	6.417E+01	7.775E+00	0.011
		739.50	*	-3.362E+00	5.887E+00	8.618E+00	1.411E+00	-0.390
		777.92		-1.627E+01	1.530E+01	1.946E+01	1.904E+00	-0.836
TC-99M		140.51	*	-5.873E+08	1.530E+01	Half-Life too short		
RU-103		497.08	*	-5.291E-03	2.026E-02	3.261E-02	5.010E-03	-0.162
		610.33		-2.369E-01	4.209E-01	6.235E-01	1.068E-01	-0.380
RH-106		621.93	*	-4.821E-02	1.530E-01	2.380E-01	3.364E-02	-0.203
		1050.41		-5.931E-01	1.115E+00	1.642E+00	1.490E-01	-0.361
RU-106		621.93	*	-4.821E-02	1.530E-01	2.380E-01	2.361E-02	-0.203
		1050.41		-5.931E-01	1.115E+00	1.642E+00	1.490E-01	-0.361
AG-108M		433.94	*	5.453E-04	1.216E-02	2.056E-02	2.262E-03	0.027
		614.28		2.493E-03	1.765E-02	2.944E-02	3.015E-03	0.085
		722.91		1.101E-02	1.535E-02	2.786E-02	2.761E-03	0.395
CD-109		88.03	*	-8.629E-02	2.711E-01	4.091E-01	3.879E-02	-0.211
AG-110M		657.76	*	1.135E-02	1.593E-02	2.872E-02	2.798E-03	0.395
		677.62		-2.105E-02	1.297E-01	2.042E-01	1.991E-02	-0.103
		706.68		-3.412E-02	9.017E-02	1.355E-01	1.333E-02	-0.252
		763.94		-3.785E-02	7.770E-02	1.143E-01	1.139E-02	-0.331
		884.68		8.445E-03	2.150E-02	3.848E-02	3.884E-03	0.219
		937.49		3.539E-02	5.027E-02	9.342E-02	9.322E-03	0.379
		1384.29		1.112E-02	6.795E-02	1.146E-01	9.819E-03	0.097
		1505.03		3.369E-02	1.318E-01	2.341E-01	1.970E-02	0.144
SN-113		391.69	*	-2.236E-03	2.136E-02	3.576E-02	3.890E-03	-0.063
CD-115		260.90		3.571E+00	4.962E+01	8.116E+01	1.174E+01	0.044
		492.35		-1.049E+01	1.478E+01	2.213E+01	2.379E+00	-0.474
		527.90	*	8.162E-01	4.095E+00	6.980E+00	7.416E-01	0.117
SN-117M		156.02		2.330E-01	8.095E-01	1.391E+00	1.302E-01	0.168
		158.56	*	-1.422E-02	2.212E-02	3.309E-02	3.128E-03	-0.430
TE-123M		159.00	*	-1.063E-02	1.193E-02	1.736E-02	1.652E-03	-0.612
SB-124		602.73		-9.576E-03	2.131E-02	3.166E-02	3.200E-03	-0.302
		645.85		-1.069E-01	2.463E-01	3.744E-01	3.782E-02	-0.285
		722.78		1.028E-01	1.518E-01	2.741E-01	2.697E-02	0.375
		1690.97	*	2.324E-02	4.780E-02	8.823E-02	7.686E-03	0.263
SB-125		427.87	*	1.212E-02	4.215E-02	7.324E-02	7.983E-03	0.165
		463.37		-2.253E-02	1.037E-01	1.678E-01	1.899E-02	-0.134
		600.60		2.049E-02	9.679E-02	1.628E-01	1.738E-02	0.126
		635.95		3.789E-02	1.410E-01	2.388E-01	2.482E-02	0.159
TE-125M		109.28	*	3.669E-01	3.417E+00	5.886E+00	6.129E-01	0.062
I-126		388.63		5.973E-02	7.642E-02	1.393E-01	1.511E-02	0.429
		666.33	*	-6.981E-02	9.763E-02	1.389E-01	1.317E-02	-0.503
		753.82		4.332E-01	7.945E-01	1.397E+00	1.360E-01	0.310
SB-126		414.70		-5.234E-03	3.220E-02	5.322E-02	5.716E-03	-0.098
		666.50		-2.392E-02	3.346E-02	4.760E-02	4.512E-03	-0.503

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		695.00		-2.258E-02	3.987E-02	5.754E-02	5.512E-03	-0.392
		697.00		-1.289E-02	1.378E-01	2.153E-01	2.064E-02	-0.060
		720.70	*	2.423E-02	6.283E-02	1.080E-01	1.043E-02	0.224
		856.80		3.315E-02	2.125E-01	3.660E-01	3.607E-02	0.091
SN-126		64.28		-2.079E-01	1.773E-01	2.713E-01	3.936E-02	-0.766
		86.94		-4.894E-02	1.147E-01	1.685E-01	6.997E-02	-0.290
		87.57	*	-2.048E-03	2.592E-02	4.010E-02	3.783E-03	-0.051
SB-127		252.40		4.487E-01	1.704E+00	2.830E+00	1.215E+00	0.159
		473.00		-1.827E-02	6.950E-01	1.157E+00	1.640E-01	-0.016
		685.70	*	-4.564E-01	5.987E-01	8.469E-01	1.009E-01	-0.539
		783.70		-2.811E-01	1.336E+00	2.053E+00	2.676E-01	-0.137
I-131		80.19		5.625E-01	1.306E+00	2.138E+00	1.851E-01	0.263
		284.31		-6.937E-01	6.154E-01	8.316E-01	1.298E-01	-0.834
		364.49	*	-1.744E-02	5.843E-02	8.905E-02	1.117E-02	-0.196
		636.99		9.231E-02	7.709E-01	1.279E+00	1.304E-01	0.072
TE-132		49.72		-1.347E+00	3.796E+00	5.822E+00	5.992E-01	-0.231
		111.76		4.428E+00	1.100E+01	1.932E+01	2.073E+00	0.229
		116.30		-8.178E+00	8.660E+00	1.340E+01	1.434E+00	-0.610
		228.16	*	1.160E-01	2.652E-01	4.519E-01	8.255E-02	0.257
BA-133		81.00		-8.866E-03	2.871E-02	4.344E-02	6.758E-03	-0.204
		276.40		1.657E-02	1.563E-01	2.555E-01	4.847E-02	0.065
		302.85		-2.839E-02	6.549E-02	9.950E-02	1.770E-02	-0.285
		356.01	*	1.063E-02	1.702E-02	2.933E-02	4.671E-03	0.362
		383.85		1.036E-01	1.298E-01	2.377E-01	3.395E-02	0.436
I-133		529.87	*	-1.519E-04	1.298E-01	Half-Life too short		
		875.33		-2.568E-02	1.298E-01	Half-Life too short		
		1298.22		-6.466E-02	1.298E-01	Half-Life too short		
CS-134		563.25		1.579E-01	1.689E-01	3.118E-01	3.270E-02	0.506
		569.33		-9.350E-02	1.039E-01	1.454E-01	1.523E-02	-0.643
		604.72		-7.403E-04	1.667E-02	2.715E-02	2.744E-03	-0.027
		795.86	*	-1.419E-02	2.359E-02	3.243E-02	3.200E-03	-0.438
		801.95		9.761E-02	1.995E-01	3.448E-01	3.400E-02	0.283
		1365.19		3.724E-02	6.709E-01	1.098E+00	9.571E-02	0.034
CS-135		268.22	*	-2.514E-02	6.699E-02	1.036E-01	1.626E-02	-0.243
I-135		546.56		-2.576E+08	6.699E-02	Half-Life too short		
		836.80		-1.089E+09	6.699E-02	Half-Life too short		
		1038.76		-8.709E+08	6.699E-02	Half-Life too short		
		1131.51		-4.703E+08	6.699E-02	Half-Life too short		
		1260.41	*	2.112E+08	6.699E-02	Half-Life too short		
		1457.56		-2.170E+09	6.699E-02	Half-Life too short		
		1678.03		-4.010E+08	6.699E-02	Half-Life too short		
		1791.20		-1.102E+09	6.699E-02	Half-Life too short		
CS-136		153.25		-2.195E-02	2.979E-01	4.964E-01	5.369E-02	-0.044
		176.60		-3.271E-02	2.021E-01	3.315E-01	3.630E-02	-0.099
		273.65		-5.945E-02	2.132E-01	3.336E-01	5.204E-02	-0.178
		340.55		2.723E-03	5.592E-02	8.960E-02	1.218E-02	0.030
		818.51		2.346E-02	3.032E-02	5.577E-02	5.489E-03	0.421
		1048.07	*	5.252E-02	4.357E-02	8.746E-02	8.253E-03	0.601
		1235.36		-1.194E-01	1.622E-01	2.057E-01	2.350E-02	-0.581

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BA-137M		661.66	*	-6.444E-03	1.496E-02	2.241E-02	2.121E-03	-0.288
CS-137		661.66	*	-6.807E-03	1.581E-02	2.368E-02	2.244E-03	-0.288
CE-139		165.86	*	-5.789E-03	1.173E-02	1.870E-02	1.817E-03	-0.310
BA-140		162.66		2.519E-01	3.135E-01	5.576E-01	5.644E-02	0.452
		304.85		-2.879E-01	6.132E-01	9.181E-01	2.904E-01	-0.314
		423.72		-5.365E-02	8.461E-01	1.414E+00	4.738E-01	-0.038
		537.26	*	-1.597E-02	1.100E-01	1.776E-01	6.121E-02	-0.090
LA-140		328.76		1.252E-02	1.371E-01	2.211E-01	3.140E-02	0.057
		487.02		2.439E-02	6.487E-02	1.130E-01	1.265E-02	0.216
		815.77		-3.862E-03	1.458E-01	2.317E-01	2.486E-02	-0.017
		1596.21	*	6.798E-03	4.610E-02	7.935E-02	6.674E-03	0.086
CE-141		145.44	*	-6.737E-03	2.421E-02	3.978E-02	3.646E-03	-0.169
CE-143		57.36		-1.310E-04	2.421E-02	Half-Life too short		
		293.27	*	-3.063E-05	2.421E-02	Half-Life too short		
		664.57		-1.382E-04	2.421E-02	Half-Life too short		
		721.93		3.022E-04	2.421E-02	Half-Life too short		
CE-144		80.12		3.120E-01	7.450E-01	1.218E+00	1.048E-01	0.256
		133.52	*	5.378E-02	7.630E-02	1.355E-01	2.077E-02	0.397
PM-144		476.78		-1.102E-02	2.927E-02	4.634E-02	5.275E-03	-0.238
		618.01		4.747E-03	1.512E-02	2.587E-02	2.631E-03	0.183
		696.49	*	-1.840E-03	1.826E-02	2.850E-02	2.733E-03	-0.065
PR-144		696.51	*	-1.303E-01	1.367E+00	2.136E+00	2.047E-01	-0.061
		1489.16		2.441E+00	4.782E+00	9.236E+00	7.768E-01	0.264
PM-146		453.88	*	-2.053E-03	1.701E-02	2.801E-02	3.480E-03	-0.073
		633.25		-2.688E-01	7.201E-01	1.097E+00	4.222E-01	-0.245
		735.93		1.685E-02	7.281E-02	1.215E-01	3.448E-02	0.139
		747.24		1.225E-02	4.778E-02	8.012E-02	1.223E-02	0.153
ND-147		91.11		-5.967E-02	9.858E-02	1.449E-01	1.436E-02	-0.412
		319.41		2.777E-02	1.414E+00	2.267E+00	3.231E-01	0.012
		531.02	*	7.839E-02	2.256E-01	3.926E-01	6.352E-02	0.200
PM-149		285.90	*	2.917E+00	3.237E+01	5.274E+01	1.057E+01	0.055
EU-152		121.78		-1.740E-03	2.660E-02	4.493E-02	4.385E-03	-0.039
		244.70		-6.993E-03	1.456E-01	2.361E-01	3.209E-02	-0.030
		344.28	*	-2.917E-02	4.497E-02	6.490E-02	8.797E-03	-0.450
		778.90		-1.314E-01	1.308E-01	1.695E-01	1.659E-02	-0.775
		964.08		-1.272E-01	1.065E-01	1.418E-01	1.359E-02	-0.897
		1085.87		1.077E-01	1.589E-01	2.966E-01	2.615E-02	0.363
		1112.07		3.980E-03	1.158E-01	1.921E-01	1.652E-02	0.021
		1408.01		3.840E-02	6.645E-02	1.259E-01	1.052E-02	0.305
GD-153		69.67		-2.291E-01	5.079E-01	7.630E-01	5.876E-02	-0.300
		97.43	*	-5.991E-03	2.988E-02	4.364E-02	3.877E-03	-0.137
		103.18		-4.690E-02	3.566E-02	5.324E-02	4.619E-03	-0.881
EU-154		123.07		-6.405E-05	1.912E-02	3.246E-02	3.647E-03	-0.002
		723.31		2.440E-02	7.642E-02	1.299E-01	1.357E-02	0.188
		873.19		1.896E-03	1.321E-01	2.225E-01	2.852E-02	0.009
		996.26		1.745E-01	1.543E-01	3.020E-01	5.399E-02	0.578
		1004.73		-5.165E-02	9.278E-02	1.367E-01	1.668E-02	-0.378
		1274.44	*	2.639E-02	5.302E-02	9.522E-02	1.054E-02	0.277
EU-155		86.55		-1.387E-02	3.248E-02	4.847E-02	4.553E-03	-0.286

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		105.31	*	2.835E-02	3.334E-02	6.108E-02	5.327E-03	0.464
TB-160		86.79		-4.084E-02	8.671E-02	1.288E-01	1.203E-02	-0.317
		197.04		-6.145E-02	2.404E-01	3.679E-01	4.100E-02	-0.167
		215.65		3.843E-02	2.992E-01	4.979E-01	6.011E-02	0.077
		298.57		-2.811E-02	4.818E-02	7.159E-02	1.071E-02	-0.393
		879.36	*	-1.266E-03	5.508E-02	9.209E-02	9.074E-03	-0.014
		962.29		4.685E-02	1.542E-01	2.950E-01	2.829E-02	0.159
		966.15		-7.299E-02	8.546E-02	1.115E-01	1.067E-02	-0.655
		1177.93		2.116E-02	1.383E-01	2.340E-01	1.882E-02	0.090
		1271.85		-1.031E-01	3.356E-01	5.106E-01	4.187E-02	-0.202
HO-166M		80.57		5.678E-02	7.920E-02	1.332E-01	1.152E-02	0.426
		184.41		-3.672E-02	1.785E-02	2.553E-02	2.691E-03	-1.439
		280.46		-2.016E-02	3.799E-02	5.732E-02	8.858E-03	-0.352
		410.95		6.947E-03	1.036E-01	1.762E-01	1.891E-02	0.039
		711.68	*	1.054E-02	2.731E-02	4.700E-02	4.526E-03	0.224
		752.31		-9.057E-04	1.289E-01	2.072E-01	2.017E-02	-0.004
		810.29		-2.194E-03	2.564E-02	4.028E-02	3.958E-03	-0.054
TA-182		67.75		4.547E-03	3.111E-02	4.997E-02	3.783E-03	0.091
		100.11		3.419E-02	5.812E-02	1.043E-01	9.156E-03	0.328
		152.43		1.584E-02	1.277E-01	2.167E-01	2.003E-02	0.073
		222.11		6.157E-02	1.431E-01	2.445E-01	3.032E-02	0.252
		1121.30		3.022E-02	6.417E-02	1.137E-01	9.693E-03	0.266
		1189.05		-3.238E-02	1.184E-01	1.818E-01	1.466E-02	-0.178
		1221.41	*	-8.205E-02	7.980E-02	9.508E-02	7.724E-03	-0.863
		1231.02		1.398E-01	1.566E-01	3.051E-01	2.484E-02	0.458
IR-192		295.96		1.832E-02	4.713E-02	7.716E-02	1.163E-02	0.237
		308.46		2.769E-02	4.965E-02	8.400E-02	1.232E-02	0.330
		316.51	*	3.065E-04	1.466E-02	2.352E-02	3.381E-03	0.013
		468.07		7.792E-03	2.936E-02	5.074E-02	5.731E-03	0.154
HG-203		70.83		-1.488E-02	3.888E-01	6.110E-01	9.549E-02	-0.024
		72.87		-5.434E-02	2.359E-01	3.630E-01	5.507E-02	-0.150
		279.20	*	-2.358E-03	1.712E-02	2.722E-02	4.248E-03	-0.087
BI-207		72.81		-1.132E-02	5.519E-02	8.518E-02	6.762E-03	-0.133
		74.97		-2.349E-02	3.719E-02	5.277E-02	4.284E-03	-0.445
		569.70		-2.016E-03	1.531E-02	2.417E-02	2.508E-03	-0.083
		1063.66	*	-1.339E-02	2.369E-02	3.468E-02	3.115E-03	-0.386
		1770.23		-2.882E-01	2.932E-01	3.442E-01	2.833E-02	-0.837
TL-208		277.37		3.581E-02	1.696E-01	2.802E-01	5.006E-02	0.128
		583.19	*	-9.926E-03	1.609E-02	2.459E-02	2.653E-03	-0.404
		860.56		-1.454E-02	1.270E-01	2.097E-01	2.184E-02	-0.069
PB-210		46.54	*	-7.069E-02	1.051E+00	1.689E+00	1.558E-01	-0.042
BI-211		72.87		-2.204E-01	9.564E-01	1.472E+00	1.169E-01	-0.150
		351.06	*	2.328E-02	1.081E-01	1.744E-01	2.302E-02	0.133
PB-211		404.85	*	-2.172E-01	2.983E-01	4.205E-01	2.052E-01	-0.517
		427.09		3.094E-01	7.131E-01	1.235E+00	5.770E-01	0.250
		832.01		1.937E-02	4.202E-01	6.765E-01	3.523E-01	0.029
BI-212		727.33	*	6.570E-02	2.242E-01	3.713E-01	4.906E-02	0.177
		785.37		-1.560E+00	1.524E+00	1.648E+00	1.614E-01	-0.946
		1620.50		-4.483E-01	8.327E-01	1.072E+00	8.998E-02	-0.418

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		-7.896E-02	1.298E-01	1.843E-01	2.334E-02	-0.428
		77.11		-2.669E-02	7.163E-02	1.070E-01	8.892E-03	-0.249
		238.63	*	-3.344E-04	3.052E-02	4.865E-02	6.830E-03	-0.007
		300.09		1.196E-01	3.287E-01	5.506E-01	8.865E-02	0.217
BI-214		609.32	*	-4.773E-02	4.179E-02	5.657E-02	6.419E-03	-0.844
		1120.29		9.549E-02	1.347E-01	2.472E-01	2.682E-02	0.386
		1764.49		1.670E-01	1.407E-01	2.884E-01	2.376E-02	0.579
PB-214		74.82		-1.399E-01	2.299E-01	3.267E-01	3.704E-02	-0.428
		77.11		-4.705E-02	1.263E-01	1.886E-01	2.208E-02	-0.249
		242.00		-1.009E-01	1.515E-01	2.289E-01	3.351E-02	-0.441
		295.22		-1.364E-03	6.504E-02	1.019E-01	1.672E-02	-0.013
		351.93	*	-2.292E-02	4.102E-02	6.035E-02	8.607E-03	-0.380
RN-219		271.23		-6.067E-03	9.854E-02	1.583E-01	2.538E-02	-0.038
		401.81	*	7.636E-03	1.605E-01	2.729E-01	4.413E-02	0.028
RA-223		81.07		-2.288E-02	6.476E-02	9.754E-02	8.485E-03	-0.235
		83.79		2.187E-02	4.288E-02	6.929E-02	6.231E-03	0.316
		94.87		-5.184E-01	2.014E-01	2.260E-01	2.036E-02	-2.294
		144.24		-3.671E-01	3.067E-01	4.309E-01	4.286E-02	-0.852
		154.21		-2.630E-02	1.414E-01	2.331E-01	2.347E-02	-0.113
		269.46		1.210E-02	7.404E-02	1.221E-01	1.836E-02	0.099
		323.87	*	-1.828E-01	2.963E-01	4.318E-01	8.896E-02	-0.423
		338.28		-2.991E-01	4.885E-01	6.269E-01	9.978E-02	-0.477
RA-224		240.99	*	-2.243E-01	2.877E-01	4.316E-01	5.781E-02	-0.520
RA-226		609.32	*	-4.773E-02	4.179E-02	5.657E-02	6.419E-03	-0.844
		1120.29		9.549E-02	1.347E-01	2.472E-01	2.682E-02	0.386
		1764.49		1.670E-01	1.407E-01	2.884E-01	2.376E-02	0.579
AC-227		79.69		5.741E-02	3.634E-01	5.793E-01	9.967E-02	0.099
		235.96		-9.492E-02	6.655E-02	9.087E-02	1.301E-02	-1.045
		256.23	*	1.449E-03	1.044E-01	1.699E-01	2.807E-02	0.009
		299.98		3.337E-02	3.710E-01	6.024E-01	1.060E-01	0.055
		304.50		-3.965E-01	7.765E-01	1.165E+00	2.380E-01	-0.340
		334.37		4.872E-01	7.366E-01	1.264E+00	2.383E-01	0.385
TH-227		79.80		1.091E-01	4.825E-01	7.739E-01	1.684E-01	0.141
		235.96		-9.492E-02	6.647E-02	9.087E-02	1.263E-02	-1.045
		256.23	*	1.449E-03	1.044E-01	1.699E-01	3.005E-02	0.009
		299.98		3.337E-02	3.710E-01	6.024E-01	1.060E-01	0.055
		304.50		-3.965E-01	7.765E-01	1.165E+00	2.380E-01	-0.340
		334.37		4.872E-01	7.366E-01	1.264E+00	2.383E-01	0.385
AC-228		338.32		-7.560E-02	1.268E-01	1.579E-01	6.788E-02	-0.479
		911.20	*	9.420E-03	8.195E-02	1.380E-01	1.725E-02	0.068
		968.97		6.695E-02	1.076E-01	1.959E-01	4.839E-02	0.342
RA-228		338.32		-7.560E-02	1.268E-01	1.579E-01	6.788E-02	-0.479
		911.20	*	9.420E-03	8.195E-02	1.380E-01	1.725E-02	0.068
		968.97		6.695E-02	1.076E-01	1.959E-01	4.839E-02	0.342
TH-228		74.82		-7.896E-02	1.295E-01	1.843E-01	1.509E-02	-0.428
		77.11		-2.669E-02	7.163E-02	1.070E-01	8.892E-03	-0.249
		238.63	*	-3.344E-04	3.052E-02	4.865E-02	6.830E-03	-0.007
		300.09		1.196E-01	3.366E-01	5.506E-01	3.437E-01	0.217
TH-229		85.43		-5.287E-03	7.177E-02	1.099E-01	1.009E-02	-0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		9.680E-03	3.932E-02	6.281E-02	5.933E-03	0.154
		193.51	*	-1.569E-01	2.211E-01	3.405E-01	3.737E-02	-0.461
		210.85		3.266E-02	3.731E-01	6.189E-01	7.321E-02	0.053
PA-231		283.69	*	-2.910E-01	6.195E-01	9.366E-01	1.813E-01	-0.311
		301.36		2.186E-01	2.372E-01	4.173E-01	7.164E-02	0.524
TH-231		81.07		-2.288E-02	6.476E-02	9.754E-02	8.485E-03	-0.235
		83.79		2.187E-02	4.288E-02	6.929E-02	6.231E-03	0.316
		94.87		-5.184E-01	2.014E-01	2.260E-01	2.036E-02	-2.294
		144.24		-3.671E-01	3.067E-01	4.309E-01	4.286E-02	-0.852
		154.21		-2.630E-02	1.414E-01	2.331E-01	2.347E-02	-0.113
		269.46		1.210E-02	7.404E-02	1.221E-01	1.836E-02	0.099
		323.87	*	-1.828E-01	2.963E-01	4.318E-01	8.896E-02	-0.423
		338.28		-2.991E-01	4.885E-01	6.269E-01	9.978E-02	-0.477
TH-232		338.32		-7.560E-02	1.229E-01	1.579E-01	2.129E-02	-0.479
		911.20	*	9.420E-03	8.195E-02	1.380E-01	1.725E-02	0.068
		968.97		6.695E-02	1.076E-01	1.959E-01	4.839E-02	0.342
PA-233		300.13		6.103E-02	1.640E-01	2.746E-01	5.269E-02	0.222
		311.90	*	-1.733E-02	3.000E-02	4.439E-02	6.514E-03	-0.390
		340.48		2.266E-02	2.483E-01	4.000E-01	1.046E-01	0.057
PA-234		94.67		-1.783E-01	7.520E-02	8.502E-02	1.078E-02	-2.097
		98.44		-9.800E-03	3.177E-02	4.981E-02	2.780E-02	-0.197
		111.00		6.710E-02	6.720E-02	1.227E-01	1.474E-02	0.547
		131.20		-5.291E-02	3.968E-02	5.883E-02	5.075E-03	-0.899
		569.50		-3.247E-02	1.340E-01	2.078E-01	2.156E-02	-0.156
		733.00		-4.512E-04	1.724E-01	2.779E-01	6.290E-02	-0.002
		880.51		4.677E-02	1.177E-01	2.114E-01	2.083E-02	0.221
		883.24		2.677E-02	1.298E-01	2.234E-01	1.506E-01	0.120
		926.50		-2.287E-02	6.120E-02	9.274E-02	2.382E-02	-0.247
		946.00	*	6.777E-02	9.775E-02	1.876E-01	3.615E-02	0.361
		949.00		-8.779E-02	1.644E-01	2.404E-01	2.321E-02	-0.365
PA-234M		766.42		2.641E+00	5.282E+00	8.903E+00	4.536E+00	0.297
		1001.03	*	-8.553E-01	2.007E+00	3.060E+00	3.255E-01	-0.280
TH-234		63.29	*	-1.166E-01	4.516E-01	7.597E-01	1.351E-01	-0.154
		92.59		-3.464E-02	2.971E-01	5.222E-01	1.164E-01	-0.066
U-235		89.96		-2.336E-01	2.983E-01	4.199E-01	1.044E-01	-0.556
		93.35		-1.117E-01	2.174E-01	3.731E-01	8.686E-02	-0.299
		143.76	*	-8.138E-02	9.251E-02	1.337E-01	2.290E-02	-0.609
		163.33		6.314E-02	1.743E-01	2.997E-01	5.531E-02	0.211
		185.72		-9.785E-03	2.238E-02	3.716E-02	3.941E-03	-0.263
		205.31		-1.697E-01	2.477E-01	3.547E-01	6.991E-02	-0.478
NP-237		86.48	*	-6.488E-02	8.440E-02	1.197E-01	2.745E-02	-0.542
		95.86		-2.275E-01	3.154E-01	4.402E-01	1.061E-01	-0.517
U-238		63.29	*	-1.166E-01	4.516E-01	7.597E-01	1.351E-01	-0.154
		92.59		-3.464E-02	2.970E-01	5.222E-01	4.775E-02	-0.066
NP-239		99.53		3.856E-02	5.667E-02	9.783E-02	8.607E-03	0.394
		103.37		-4.338E-02	3.244E-02	4.829E-02	4.187E-03	-0.898
		106.12		8.328E-03	2.687E-02	4.719E-02	4.059E-03	0.176
		117.23	*	-5.864E-03	1.402E-01	2.378E-01	2.011E-02	-0.025
		228.18		4.438E-02	8.990E-02	1.542E-01	1.961E-02	0.288

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		2.832E-02	7.610E-02	1.278E-01	1.968E-02	0.222
AM-241		59.54	*	4.797E-02	4.240E-02	7.516E-02	5.906E-03	0.638
CM-247		278.00		1.543E-01	3.195E-01	5.426E-01	8.364E-02	0.284
		287.50		4.242E-01	5.575E-01	9.686E-01	1.480E-01	0.438
		402.40	*	-7.848E-03	1.533E-02	2.416E-02	2.586E-03	-0.325
CF-249		252.80		-1.698E-02	4.241E-01	6.866E-01	9.632E-02	-0.025
		333.37		1.300E-02	8.130E-02	1.322E-01	1.810E-02	0.098
		388.16	*	1.085E-02	1.864E-02	3.343E-02	3.636E-03	0.325
CF-251		177.52	*	3.438E-02	5.362E-02	9.391E-02	9.605E-03	0.366
		227.38		-1.562E-02	1.422E-01	2.301E-01	2.917E-02	-0.068
		285.41		-5.015E-01	9.689E-01	1.459E+00	2.237E-01	-0.344
ANH-511		511.00	*	-3.779E-02	2.985E-02	5.531E-02	5.914E-03	-0.683

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061469    *
* Acquisition date : 20-MAR-2010 11:11:16 Detector SN#     :               *
* Detector ID      : GAM11                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.56     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  6-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202061469          Analyst initials: MXR1            *
* Batch Number     : 961099               Sample Quantity : 1.3824E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	9.426E-02	1.421E-01	2.680E-01	0.000E+00 NOT IDENT.
NA-22	9.310E-03	1.832E-02	3.380E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	2.081E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	-2.250E-02	2.198E-01	4.101E-01	0.000E+00 NOT IDENT.
SC-46	-1.295E-02	1.571E-02	2.265E-02	0.000E+00 NOT IDENT.
V-48	7.674E-03	2.435E-02	4.464E-02	0.000E+00 NOT IDENT.
CR-51	5.011E-02	1.551E-01	2.721E-01	0.000E+00 NOT IDENT.
MN-54	6.626E-03	1.444E-02	2.709E-02	0.000E+00 NOT IDENT.
CO-56	-2.389E-03	1.736E-02	2.960E-02	0.000E+00 NOT IDENT.
CO-57	-2.695E-03	9.266E-03	1.650E-02	0.000E+00 NOT IDENT.
CO-58	4.226E-04	1.557E-02	2.594E-02	0.000E+00 NOT IDENT.
FE-59	-2.503E-02	3.155E-02	4.229E-02	0.000E+00 NOT IDENT.
CO-60	1.309E-03	1.503E-02	2.557E-02	0.000E+00 NOT IDENT.
ZN-65	-1.702E-02	3.126E-02	4.602E-02	0.000E+00 NOT IDENT.
SE-75	-9.117E-04	1.885E-02	3.218E-02	0.000E+00 NOT IDENT.
SR-85	-7.521E-02	2.922E-02	3.800E-02	0.000E+00 NOT IDENT.
Y-88	1.113E-02	1.770E-02	3.498E-02	0.000E+00 NOT IDENT.
Y-91	2.309E+00	8.532E+00	1.508E+01	0.000E+00 NOT IDENT.
NB-94	4.577E-03	1.535E-02	2.700E-02	0.000E+00 NOT IDENT.
NB-95	1.868E-02	1.808E-02	3.500E-02	0.000E+00 NOT IDENT.
NB-95M	-6.843E-02	5.166E-02	7.606E-02	0.000E+00 NOT IDENT.
ZR-95	-1.087E-02	3.035E-02	4.708E-02	0.000E+00 NOT IDENT.
MO-99	-3.362E+00	5.770E+00	8.765E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	2.910E+15	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-5.291E-03	1.985E-02	3.343E-02	0.000E+00 NOT IDENT.
RH-106	-4.821E-02	1.500E-01	2.429E-01	0.000E+00 NOT IDENT.

RU-106	-4.821E-02	1.499E-01	2.429E-01	0.000E+00	NOT IDENT.
AG-108M	5.453E-04	1.192E-02	2.113E-02	0.000E+00	NOT IDENT.
CD-109	-8.629E-02	2.657E-01	4.334E-01	0.000E+00	NOT IDENT.
AG-110M	1.135E-02	1.561E-02	2.928E-02	0.000E+00	NOT IDENT.
SN-113	-2.236E-03	2.093E-02	3.683E-02	0.000E+00	NOT IDENT.
CD-115	8.162E-01	4.013E+00	7.148E+00	0.000E+00	NOT IDENT.
SN-117M	-1.422E-02	2.168E-02	3.468E-02	0.000E+00	NOT IDENT.
TE-123M	-1.063E-02	1.169E-02	1.819E-02	0.000E+00	NOT IDENT.
SB-124	2.324E-02	4.684E-02	8.825E-02	0.000E+00	NOT IDENT.
SB-125	1.212E-02	4.131E-02	7.530E-02	0.000E+00	NOT IDENT.
TE-125M	3.669E-01	3.348E+00	6.211E+00	0.000E+00	NOT IDENT.
I-126	-6.981E-02	9.568E-02	1.416E-01	0.000E+00	NOT IDENT.
SB-126	2.423E-02	6.157E-02	1.099E-01	0.000E+00	NOT IDENT.
SN-126	-2.048E-03	2.540E-02	4.249E-02	0.000E+00	NOT IDENT.
SB-127	-4.564E-01	5.867E-01	8.627E-01	0.000E+00	NOT IDENT.
I-131	-1.744E-02	5.726E-02	9.185E-02	0.000E+00	NOT IDENT.
TE-132	1.160E-01	2.599E-01	4.703E-01	0.000E+00	NOT IDENT.
BA-133	1.063E-02	1.668E-02	3.027E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.524E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.419E-02	2.312E-02	3.294E-02	0.000E+00	NOT IDENT.
CS-135	-2.514E-02	6.565E-02	1.075E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.430E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.252E-02	4.270E-02	8.833E-02	0.000E+00	NOT IDENT.
BA-137M	-6.444E-03	1.466E-02	2.285E-02	0.000E+00	NOT IDENT.
CS-137	-6.807E-03	1.549E-02	2.413E-02	0.000E+00	NOT IDENT.
CE-139	-5.789E-03	1.150E-02	1.958E-02	0.000E+00	NOT IDENT.
BA-140	-1.597E-02	1.078E-01	1.818E-01	0.000E+00	NOT IDENT.
LA-140	6.798E-03	4.518E-02	7.947E-02	0.000E+00	NOT IDENT.
CE-141	-6.737E-03	2.373E-02	4.176E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.881E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.378E-02	7.478E-02	1.425E-01	0.000E+00	NOT IDENT.
PM-144	-1.840E-03	1.789E-02	2.903E-02	0.000E+00	NOT IDENT.
PR-144	-1.303E-01	1.340E+00	2.175E+00	0.000E+00	NOT IDENT.
PM-146	-2.053E-03	1.667E-02	2.877E-02	0.000E+00	NOT IDENT.
ND-147	7.839E-02	2.210E-01	4.020E-01	0.000E+00	NOT IDENT.
PM-149	2.917E+00	3.172E+01	5.465E+01	0.000E+00	NOT IDENT.
EU-152	-2.917E-02	4.407E-02	6.701E-02	0.000E+00	NOT IDENT.
GD-153	-5.991E-03	2.928E-02	4.614E-02	0.000E+00	NOT IDENT.
EU-154	2.639E-02	5.196E-02	9.580E-02	0.000E+00	NOT IDENT.
EU-155	2.835E-02	3.268E-02	6.450E-02	0.000E+00	NOT IDENT.
TB-160	-1.266E-03	5.398E-02	9.334E-02	0.000E+00	NOT IDENT.
HO-166M	1.054E-02	2.676E-02	4.784E-02	0.000E+00	NOT IDENT.
TA-182	-8.205E-02	7.821E-02	9.573E-02	0.000E+00	NOT IDENT.
IR-192	3.065E-04	1.437E-02	2.433E-02	0.000E+00	NOT IDENT.
HG-203	-2.358E-03	1.678E-02	2.822E-02	0.000E+00	NOT IDENT.
BI-207	-1.339E-02	2.321E-02	3.502E-02	0.000E+00	NOT IDENT.
TL-208	-9.926E-03	1.577E-02	2.513E-02	0.000E+00	NOT IDENT.
PB-210	-7.069E-02	1.030E+00	1.810E+00	0.000E+00	NOT IDENT.
BI-211	2.328E-02	1.059E-01	1.801E-01	0.000E+00	NOT IDENT.
PB-211	-2.172E-01	2.924E-01	4.328E-01	0.000E+00	NOT IDENT.
BI-212	6.570E-02	2.198E-01	3.778E-01	0.000E+00	NOT IDENT.
PB-212	-3.344E-04	2.991E-02	5.059E-02	0.000E+00	NOT IDENT.
BI-214	-4.773E-02	4.096E-02	5.776E-02	0.000E+00	NOT IDENT.
PB-214	-2.292E-02	4.020E-02	6.229E-02	0.000E+00	NOT IDENT.
RN-219	7.636E-03	1.573E-01	2.810E-01	0.000E+00	NOT IDENT.
RA-223	-1.828E-01	2.904E-01	4.463E-01	0.000E+00	NOT IDENT.
RA-224	-2.243E-01	2.819E-01	4.487E-01	0.000E+00	NOT IDENT.
RA-226	-4.773E-02	4.096E-02	5.776E-02	0.000E+00	NOT IDENT.
AC-227	1.449E-03	1.023E-01	1.764E-01	0.000E+00	NOT IDENT.
TH-227	1.449E-03	1.023E-01	1.764E-01	0.000E+00	NOT IDENT.
AC-228	9.420E-03	8.031E-02	1.398E-01	0.000E+00	NOT IDENT.
RA-228	9.420E-03	8.031E-02	1.398E-01	0.000E+00	NOT IDENT.
TH-228	-3.344E-04	2.991E-02	5.059E-02	0.000E+00	NOT IDENT.
TH-229	-1.569E-01	2.167E-01	3.555E-01	0.000E+00	NOT IDENT.
PA-231	-2.910E-01	6.072E-01	9.707E-01	0.000E+00	NOT IDENT.
TH-231	-1.828E-01	2.904E-01	4.463E-01	0.000E+00	NOT IDENT.
TH-232	9.420E-03	8.031E-02	1.398E-01	0.000E+00	NOT IDENT.
PA-233	-1.733E-02	2.940E-02	4.592E-02	0.000E+00	NOT IDENT.
PA-234	6.777E-02	9.579E-02	1.899E-01	0.000E+00	NOT IDENT.
PA-234M	-8.553E-01	1.967E+00	3.093E+00	0.000E+00	NOT IDENT.
TH-234	-1.166E-01	4.426E-01	8.097E-01	0.000E+00	NOT IDENT.
U-235	-8.138E-02	9.066E-02	1.403E-01	0.000E+00	NOT IDENT.
NP-237	-6.488E-02	8.271E-02	1.268E-01	0.000E+00	NOT IDENT.
U-238	-1.166E-01	4.426E-01	8.097E-01	0.000E+00	NOT IDENT.
NP-239	-5.864E-03	1.374E-01	2.506E-01	0.000E+00	NOT IDENT.
AM-241	4.797E-02	4.155E-02	8.020E-02	0.000E+00	NOT IDENT.
CM-247	-7.848E-03	1.502E-02	2.487E-02	0.000E+00	NOT IDENT.
CF-249	1.085E-02	1.827E-02	3.444E-02	0.000E+00	NOT IDENT.

CF-251	3.438E-02	5.254E-02	9.821E-02	0.000E+00 NOT IDENT.
ANH-511	-3.779E-02	2.925E-02	5.667E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 13:12:20.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061469.CNF;1
Sample date       : 6-MAR-2010 00:00:00. Acquisition date : 20-MAR-2010 11:11:16
Sample ID         : G1202061469          Sample quantity  : 1.38240E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 961099                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202061469
Acquisition date : 20-MAR-2010 11:11:16

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found
"E" = Manually edited
"M" = Manually accepted
"A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 13:12:24.68

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061469.CNF;1   *
* Acquisition date : 20-MAR-2010 11:11:16  Detector SN#    :                  *
* Detector ID      : GAM11                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:00.56         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 6-MAR-2010 00:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G1202061469           Analyst initials: MXR1             *
* Batch Number     : 961099                Sample Quantity : 1.38240E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.426E-02		1.450E-01	2.612E-01	2.956E-02	0.361
NA-22	9.310E-03		1.870E-02	3.360E-02	2.759E-03	0.277
NA-24	-1.795E-01		1.062E-01	Half-Life too short		
K-40	-2.250E-02		2.243E-01	4.088E-01	3.535E-02	-0.055
SC-46	-1.295E-02		1.603E-02	2.236E-02	2.202E-03	-0.579
V-48	7.674E-03		2.485E-02	4.414E-02	4.187E-03	0.174
CR-51	5.011E-02		1.583E-01	2.632E-01	3.818E-02	0.190
MN-54	6.626E-03		1.473E-02	2.669E-02	2.628E-03	0.248
CO-56	-2.389E-03		1.771E-02	2.918E-02	2.875E-03	-0.082
CO-57	-2.695E-03		9.455E-03	1.567E-02	1.326E-03	-0.172
CO-58	4.226E-04		1.589E-02	2.555E-02	2.515E-03	0.017
FE-59	-2.503E-02		3.219E-02	4.191E-02	3.939E-03	-0.597
CO-60	1.309E-03		1.534E-02	2.544E-02	2.102E-03	0.051
ZN-65	-1.702E-02		3.190E-02	4.562E-02	3.915E-03	-0.373
SE-75	-9.117E-04		1.924E-02	3.101E-02	4.558E-03	-0.029
SR-85	-7.521E-02		2.981E-02	3.709E-02	3.962E-03	-2.028
Y-88	1.113E-02		1.806E-02	3.503E-02	2.844E-03	0.318

Sample ID : G1202061469 Acquisition date : 20-MAR-2010 11:11:16

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	2.309E+00		8.706E+00	1.497E+01	1.212E+00	0.154
NB-94	4.577E-03		1.566E-02	2.651E-02	2.546E-03	0.173
NB-95	1.868E-02		1.845E-02	3.444E-02	3.362E-03	0.542
NB-95M	-6.843E-02		5.271E-02	7.313E-02	1.022E-02	-0.936
ZR-95	-1.087E-02		3.097E-02	4.631E-02	4.886E-03	-0.235
MO-99	-3.362E+00		5.887E+00	8.618E+00	1.411E+00	-0.390
TC-99M	-5.873E+08		1.485E+09	Half-Life too short		
RU-103	-5.291E-03		2.026E-02	3.261E-02	5.010E-03	-0.162
RH-106	-4.821E-02		1.530E-01	2.380E-01	3.364E-02	-0.203
RU-106	-4.821E-02		1.530E-01	2.380E-01	2.361E-02	-0.203
AG-108M	5.453E-04		1.216E-02	2.056E-02	2.262E-03	0.027
CD-109	-8.629E-02		2.711E-01	4.091E-01	3.879E-02	-0.211
AG-110M	1.135E-02		1.593E-02	2.872E-02	2.798E-03	0.395
SN-113	-2.236E-03		2.136E-02	3.576E-02	3.890E-03	-0.063
CD-115	8.162E-01		4.095E+00	6.980E+00	7.416E-01	0.117
SN-117M	-1.422E-02		2.212E-02	3.309E-02	3.128E-03	-0.430
TE-123M	-1.063E-02		1.193E-02	1.736E-02	1.652E-03	-0.612
SB-124	2.324E-02		4.780E-02	8.823E-02	7.686E-03	0.263
SB-125	1.212E-02		4.215E-02	7.324E-02	7.983E-03	0.165
TE-125M	3.669E-01		3.417E+00	5.886E+00	6.129E-01	0.062
I-126	-6.981E-02		9.763E-02	1.389E-01	1.317E-02	-0.503
SB-126	2.423E-02		6.283E-02	1.080E-01	1.043E-02	0.224
SN-126	-2.048E-03		2.592E-02	4.010E-02	3.783E-03	-0.051
SB-127	-4.564E-01		5.987E-01	8.469E-01	1.009E-01	-0.539
I-131	-1.744E-02		5.843E-02	8.905E-02	1.117E-02	-0.196
TE-132	1.160E-01		2.652E-01	4.519E-01	8.255E-02	0.257
BA-133	1.063E-02		1.702E-02	2.933E-02	4.671E-03	0.362
I-133	-1.519E-04		7.778E-04	Half-Life too short		
CS-134	-1.419E-02		2.359E-02	3.243E-02	3.200E-03	-0.438
CS-135	-2.514E-02		6.699E-02	1.036E-01	1.626E-02	-0.243
I-135	2.112E+08		2.770E+08	Half-Life too short		
CS-136	5.252E-02		4.357E-02	8.746E-02	8.253E-03	0.601
BA-137M	-6.444E-03		1.496E-02	2.241E-02	2.121E-03	-0.288
CS-137	-6.807E-03		1.581E-02	2.368E-02	2.244E-03	-0.288
CE-139	-5.789E-03		1.173E-02	1.870E-02	1.817E-03	-0.310
BA-140	-1.597E-02		1.100E-01	1.776E-01	6.121E-02	-0.090
LA-140	6.798E-03		4.610E-02	7.935E-02	6.674E-03	0.086
CE-141	-6.737E-03		2.421E-02	3.978E-02	3.646E-03	-0.169
CE-143	-3.063E-05		1.980E-05	Half-Life too short		
CE-144	5.378E-02		7.630E-02	1.355E-01	2.077E-02	0.397
PM-144	-1.840E-03		1.826E-02	2.850E-02	2.733E-03	-0.065
PR-144	-1.303E-01		1.367E+00	2.136E+00	2.047E-01	-0.061
PM-146	-2.053E-03		1.701E-02	2.801E-02	3.480E-03	-0.073
ND-147	7.839E-02		2.256E-01	3.926E-01	6.352E-02	0.200
PM-149	2.917E+00		3.237E+01	5.274E+01	1.057E+01	0.055
EU-152	-2.917E-02		4.497E-02	6.490E-02	8.797E-03	-0.450
GD-153	-5.991E-03		2.988E-02	4.364E-02	3.877E-03	-0.137
EU-154	2.639E-02		5.302E-02	9.522E-02	1.054E-02	0.277

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	2.835E-02		3.334E-02	6.108E-02	5.327E-03	0.464
TB-160	-1.266E-03		5.508E-02	9.209E-02	9.074E-03	-0.014
HO-166M	1.054E-02		2.731E-02	4.700E-02	4.526E-03	0.224
TA-182	-8.205E-02		7.980E-02	9.508E-02	7.724E-03	-0.863
IR-192	3.065E-04		1.466E-02	2.352E-02	3.381E-03	0.013
HG-203	-2.358E-03		1.712E-02	2.722E-02	4.248E-03	-0.087
BI-207	-1.339E-02		2.369E-02	3.468E-02	3.115E-03	-0.386
TL-208	-9.926E-03		1.609E-02	2.459E-02	2.653E-03	-0.404
PB-210	-7.069E-02		1.051E+00	1.689E+00	1.558E-01	-0.042
BI-211	2.328E-02		1.081E-01	1.744E-01	2.302E-02	0.133
PB-211	-2.172E-01		2.983E-01	4.205E-01	2.052E-01	-0.517
BI-212	6.570E-02		2.242E-01	3.713E-01	4.906E-02	0.177
PB-212	-3.344E-04		3.052E-02	4.865E-02	6.830E-03	-0.007
BI-214	-4.773E-02		4.179E-02	5.657E-02	6.419E-03	-0.844
PB-214	-2.292E-02		4.102E-02	6.035E-02	8.607E-03	-0.380
RN-219	7.636E-03		1.605E-01	2.729E-01	4.413E-02	0.028
RA-223	-1.828E-01		2.963E-01	4.318E-01	8.896E-02	-0.423
RA-224	-2.243E-01		2.877E-01	4.316E-01	5.781E-02	-0.520
RA-226	-4.773E-02		4.179E-02	5.657E-02	6.419E-03	-0.844
AC-227	1.449E-03		1.044E-01	1.699E-01	2.807E-02	0.009
TH-227	1.449E-03		1.044E-01	1.699E-01	3.005E-02	0.009
AC-228	9.420E-03		8.195E-02	1.380E-01	1.725E-02	0.068
RA-228	9.420E-03		8.195E-02	1.380E-01	1.725E-02	0.068
TH-228	-3.344E-04		3.052E-02	4.865E-02	6.830E-03	-0.007
TH-229	-1.569E-01		2.211E-01	3.405E-01	3.737E-02	-0.461
PA-231	-2.910E-01		6.195E-01	9.366E-01	1.813E-01	-0.311
TH-231	-1.828E-01		2.963E-01	4.318E-01	8.896E-02	-0.423
TH-232	9.420E-03		8.195E-02	1.380E-01	1.725E-02	0.068
PA-233	-1.733E-02		3.000E-02	4.439E-02	6.514E-03	-0.390
PA-234	6.777E-02		9.775E-02	1.876E-01	3.615E-02	0.361
PA-234M	-8.553E-01		2.007E+00	3.060E+00	3.255E-01	-0.280
TH-234	-1.166E-01		4.516E-01	7.597E-01	1.351E-01	-0.154
U-235	-8.138E-02		9.251E-02	1.337E-01	2.290E-02	-0.609
NP-237	-6.488E-02		8.440E-02	1.197E-01	2.745E-02	-0.542
U-238	-1.166E-01		4.516E-01	7.597E-01	1.351E-01	-0.154
NP-239	-5.864E-03		1.402E-01	2.378E-01	2.011E-02	-0.025
AM-241	4.797E-02		4.240E-02	7.516E-02	5.906E-03	0.638
CM-247	-7.848E-03		1.533E-02	2.416E-02	2.586E-03	-0.325
CF-249	1.085E-02		1.864E-02	3.343E-02	3.636E-03	0.325
CF-251	3.438E-02		5.362E-02	9.391E-02	9.605E-03	0.366
ANH-511	-3.779E-02		2.985E-02	5.531E-02	5.914E-03	-0.683

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202061469           *
* Acquisition date : 20-MAR-2010 11:11:16 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.56     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  6-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202061469          Analyst initials: MXR1            *
* Batch Number     : 961099               Sample Quantity : 1.3824E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	9.426E-02	1.421E-01	1.341E-01	7.250E-02 NOT IDENT.
NA-22	9.310E-03	1.832E-02	1.691E-02	9.348E-03 NOT IDENT.
NA-24	-1.795E+05	2.081E+05	0.000E+00	1.062E+05 SHORT HLIF
K-40	-2.250E-02	2.198E-01	2.052E-01	1.122E-01 NOT IDENT.
SC-46	-1.295E-02	1.571E-02	1.133E-02	8.017E-03 NOT IDENT.
V-48	7.674E-03	2.435E-02	2.233E-02	1.242E-02 NOT IDENT.
CR-51	5.011E-02	1.551E-01	1.361E-01	7.914E-02 NOT IDENT.
MN-54	6.626E-03	1.444E-02	1.355E-02	7.367E-03 NOT IDENT.
CO-56	-2.389E-03	1.736E-02	1.481E-02	8.856E-03 NOT IDENT.
CO-57	-2.695E-03	9.266E-03	8.257E-03	4.727E-03 NOT IDENT.
CO-58	4.226E-04	1.557E-02	1.298E-02	7.944E-03 NOT IDENT.
FE-59	-2.503E-02	3.155E-02	2.116E-02	1.610E-02 NOT IDENT.
CO-60	1.309E-03	1.503E-02	1.279E-02	7.671E-03 NOT IDENT.
ZN-65	-1.702E-02	3.126E-02	2.303E-02	1.595E-02 NOT IDENT.
SE-75	-9.117E-04	1.885E-02	1.610E-02	9.618E-03 NOT IDENT.
SR-85	-7.521E-02	2.922E-02	1.901E-02	1.491E-02 NOT IDENT.
Y-88	1.113E-02	1.770E-02	1.750E-02	9.032E-03 NOT IDENT.
Y-91	2.309E+00	8.532E+00	7.545E+00	4.353E+00 NOT IDENT.
NB-94	4.577E-03	1.535E-02	1.351E-02	7.831E-03 NOT IDENT.
NB-95	1.868E-02	1.808E-02	1.751E-02	9.226E-03 NOT IDENT.
NB-95M	-6.843E-02	5.166E-02	3.805E-02	2.636E-02 NOT IDENT.
ZR-95	-1.087E-02	3.035E-02	2.355E-02	1.548E-02 NOT IDENT.
MO-99	-3.362E+00	5.770E+00	4.385E+00	2.944E+00 NOT IDENT.
TC-99M	-5.873E+14	2.910E+15	0.000E+00	1.485E+15 SHORT HLIF
RU-103	-5.291E-03	1.985E-02	1.672E-02	1.013E-02 NOT IDENT.
RH-106	-4.821E-02	1.500E-01	1.215E-01	7.652E-02 NOT IDENT.

RU-106	-4.821E-02	1.499E-01	1.215E-01	7.648E-02	NOT IDENT.
AG-108M	5.453E-04	1.192E-02	1.057E-02	6.079E-03	NOT IDENT.
CD-109	-8.629E-02	2.657E-01	2.168E-01	1.356E-01	NOT IDENT.
AG-110M	1.135E-02	1.561E-02	1.465E-02	7.966E-03	NOT IDENT.
SN-113	-2.236E-03	2.093E-02	1.843E-02	1.068E-02	NOT IDENT.
CD-115	8.162E-01	4.013E+00	3.576E+00	2.048E+00	NOT IDENT.
SN-117M	-1.422E-02	2.168E-02	1.735E-02	1.106E-02	NOT IDENT.
TE-123M	-1.063E-02	1.169E-02	9.102E-03	5.963E-03	NOT IDENT.
SB-124	2.324E-02	4.684E-02	4.415E-02	2.390E-02	NOT IDENT.
SB-125	1.212E-02	4.131E-02	3.767E-02	2.107E-02	NOT IDENT.
TE-125M	3.669E-01	3.348E+00	3.107E+00	1.708E+00	NOT IDENT.
I-126	-6.981E-02	9.568E-02	7.082E-02	4.882E-02	NOT IDENT.
SB-126	2.423E-02	6.157E-02	5.499E-02	3.141E-02	NOT IDENT.
SN-126	-2.048E-03	2.540E-02	2.126E-02	1.296E-02	NOT IDENT.
SB-127	-4.564E-01	5.867E-01	4.316E-01	2.994E-01	NOT IDENT.
I-131	-1.744E-02	5.726E-02	4.595E-02	2.922E-02	NOT IDENT.
TE-132	1.160E-01	2.599E-01	2.353E-01	1.326E-01	NOT IDENT.
BA-133	1.063E-02	1.668E-02	1.514E-02	8.511E-03	NOT IDENT.
I-133	-1.519E+02	1.524E+03	0.000E+00	7.778E+02	SHORT HLIF
CS-134	-1.419E-02	2.312E-02	1.648E-02	1.180E-02	NOT IDENT.
CS-135	-2.514E-02	6.565E-02	5.379E-02	3.350E-02	NOT IDENT.
I-135	2.112E+14	5.430E+14	0.000E+00	2.770E+14	SHORT HLIF
CS-136	5.252E-02	4.270E-02	4.419E-02	2.179E-02	NOT IDENT.
BA-137M	-6.444E-03	1.466E-02	1.143E-02	7.482E-03	NOT IDENT.
CS-137	-6.807E-03	1.549E-02	1.207E-02	7.904E-03	NOT IDENT.
CE-139	-5.789E-03	1.150E-02	9.793E-03	5.867E-03	NOT IDENT.
BA-140	-1.597E-02	1.078E-01	9.095E-02	5.499E-02	NOT IDENT.
LA-140	6.798E-03	4.518E-02	3.976E-02	2.305E-02	NOT IDENT.
CE-141	-6.737E-03	2.373E-02	2.089E-02	1.211E-02	NOT IDENT.
CE-143	-3.063E+01	3.881E+01	0.000E+00	1.980E+01	SHORT HLIF
CE-144	5.378E-02	7.478E-02	7.129E-02	3.815E-02	NOT IDENT.
PM-144	-1.840E-03	1.789E-02	1.452E-02	9.129E-03	NOT IDENT.
PR-144	-1.303E-01	1.340E+00	1.088E+00	6.834E-01	NOT IDENT.
PM-146	-2.053E-03	1.667E-02	1.439E-02	8.507E-03	NOT IDENT.
ND-147	7.839E-02	2.210E-01	2.011E-01	1.128E-01	NOT IDENT.
PM-149	2.917E+00	3.172E+01	2.734E+01	1.618E+01	NOT IDENT.
EU-152	-2.917E-02	4.407E-02	3.353E-02	2.248E-02	NOT IDENT.
GD-153	-5.991E-03	2.928E-02	2.309E-02	1.494E-02	NOT IDENT.
EU-154	2.639E-02	5.196E-02	4.793E-02	2.651E-02	NOT IDENT.
EU-155	2.835E-02	3.268E-02	3.227E-02	1.667E-02	NOT IDENT.
TB-160	-1.266E-03	5.398E-02	4.670E-02	2.754E-02	NOT IDENT.
HO-166M	1.054E-02	2.676E-02	2.393E-02	1.366E-02	NOT IDENT.
TA-182	-8.205E-02	7.821E-02	4.790E-02	3.990E-02	NOT IDENT.
IR-192	3.065E-04	1.437E-02	1.217E-02	7.329E-03	NOT IDENT.
HG-203	-2.358E-03	1.678E-02	1.412E-02	8.561E-03	NOT IDENT.
BI-207	-1.339E-02	2.321E-02	1.752E-02	1.184E-02	NOT IDENT.
TL-208	-9.926E-03	1.577E-02	1.257E-02	8.044E-03	NOT IDENT.
PB-210	-7.069E-02	1.030E+00	9.057E-01	5.253E-01	NOT IDENT.
BI-211	2.328E-02	1.059E-01	9.008E-02	5.404E-02	NOT IDENT.
PB-211	-2.172E-01	2.924E-01	2.165E-01	1.492E-01	NOT IDENT.
BI-212	6.570E-02	2.198E-01	1.890E-01	1.121E-01	NOT IDENT.
PB-212	-3.344E-04	2.991E-02	2.531E-02	1.526E-02	NOT IDENT.
BI-214	-4.773E-02	4.096E-02	2.890E-02	2.090E-02	NOT IDENT.
PB-214	-2.292E-02	4.020E-02	3.116E-02	2.051E-02	NOT IDENT.
RN-219	7.636E-03	1.573E-01	1.406E-01	8.026E-02	NOT IDENT.
RA-223	-1.828E-01	2.904E-01	2.233E-01	1.482E-01	NOT IDENT.
RA-224	-2.243E-01	2.819E-01	2.245E-01	1.438E-01	NOT IDENT.
RA-226	-4.773E-02	4.096E-02	2.890E-02	2.090E-02	NOT IDENT.
AC-227	1.449E-03	1.023E-01	8.827E-02	5.221E-02	NOT IDENT.
TH-227	1.449E-03	1.023E-01	8.827E-02	5.221E-02	NOT IDENT.
AC-228	9.420E-03	8.031E-02	6.995E-02	4.097E-02	NOT IDENT.
RA-228	9.420E-03	8.031E-02	6.995E-02	4.097E-02	NOT IDENT.
TH-228	-3.344E-04	2.991E-02	2.531E-02	1.526E-02	NOT IDENT.
TH-229	-1.569E-01	2.167E-01	1.778E-01	1.106E-01	NOT IDENT.
PA-231	-2.910E-01	6.072E-01	4.856E-01	3.098E-01	NOT IDENT.
TH-231	-1.828E-01	2.904E-01	2.233E-01	1.482E-01	NOT IDENT.
TH-232	9.420E-03	8.031E-02	6.995E-02	4.097E-02	NOT IDENT.
PA-233	-1.733E-02	2.940E-02	2.297E-02	1.500E-02	NOT IDENT.
PA-234	6.777E-02	9.579E-02	9.500E-02	4.887E-02	NOT IDENT.
PA-234M	-8.553E-01	1.967E+00	1.548E+00	1.004E+00	NOT IDENT.
TH-234	-1.166E-01	4.426E-01	4.051E-01	2.258E-01	NOT IDENT.
U-235	-8.138E-02	9.066E-02	7.021E-02	4.625E-02	NOT IDENT.
NP-237	-6.488E-02	8.271E-02	6.344E-02	4.220E-02	NOT IDENT.
U-238	-1.166E-01	4.426E-01	4.051E-01	2.258E-01	NOT IDENT.
NP-239	-5.864E-03	1.374E-01	1.254E-01	7.010E-02	NOT IDENT.
AM-241	4.797E-02	4.155E-02	4.012E-02	2.120E-02	NOT IDENT.
CM-247	-7.848E-03	1.502E-02	1.244E-02	7.664E-03	NOT IDENT.
CF-249	1.085E-02	1.827E-02	1.723E-02	9.320E-03	NOT IDENT.

CF-251	3.438E-02	5.254E-02	4.913E-02	2.681E-02 NOT IDENT.
ANH-511	-3.779E-02	2.925E-02	2.835E-02	1.492E-02 NOT IDENT.

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	42.4178
49.72	42.8892
57.36	0.0000
59.54	38.5829
63.29	43.6016
63.29	43.6016
64.28	62.1369
67.75	51.1254
69.67	63.0753
70.83	59.7567
72.81	69.4940
72.87	69.5048
72.87	69.5048
74.82	80.5139
74.82	80.5139
74.82	80.5139
74.97	80.5451
77.11	76.2212
77.11	76.2212
77.11	76.2212
79.69	53.9391
79.80	53.9535
80.12	53.9961
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80.57	48.0493
81.00	62.5300
81.07	62.5407
81.07	62.5407
83.79	50.8453
83.79	50.8453
85.43	59.5498
86.48	82.8439
86.55	73.1094
86.79	75.5880
86.94	75.6145
87.57	65.9538
88.03	72.1372
88.47	61.1950
89.96	84.7360
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92.59	53.1188
92.59	53.1188
93.35	50.7332
94.67	130.3039
94.87	130.3608
94.87	130.3608
95.86	60.9659
97.43	47.4397
98.44	54.2146
99.53	42.6357
100.11	48.5469
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103.37	64.8877
105.31	39.7638
106.12	46.6082
109.28	58.8413
111.00	50.4838
111.76	63.4123
116.30	63.1008
117.23	54.5522
121.12	64.5407
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122.06	62.9044
123.07	58.6434
131.20	76.3637
133.52	53.4900
136.00	74.3060

136.47	72.5724
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140.51	0.0000
143.76	76.1703
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144.24	78.9517
145.44	67.2838
152.43	53.3201
153.25	53.3879
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154.21	55.3101
156.02	50.8419
158.56	55.6775
159.00	59.4284
162.66	51.3505
163.33	56.0736
165.86	62.8479
176.60	63.8151
177.52	52.4521
181.07	56.5417
184.41	70.2754
185.72	49.1832
193.51	66.2534
197.04	47.9592
205.31	68.2419
210.85	58.7497
215.65	48.0737
222.11	44.4055
227.38	46.7080
228.16	44.7175
228.18	43.7021
235.69	69.6996
235.96	75.8729
235.96	75.8729
238.63	53.4742
238.63	53.4742
240.99	70.1105
242.00	59.8662
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252.40	43.8397
252.80	46.9908
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256.23	39.8249
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269.46	38.2456
269.46	38.2456
271.23	42.5708
273.65	46.9407
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277.37	42.8312
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279.20	46.1267
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280.46	48.3316
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284.31	48.5129
285.41	45.3265
285.90	37.7899
287.50	34.6042
293.27	0.0000
295.22	34.8587
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298.57	45.8956
299.98	38.2962
299.98	38.2962
300.09	33.9233
300.09	33.9233
300.13	33.9245
301.36	29.5807
302.85	48.2718
304.50	49.4440
304.50	49.4440
304.85	47.2613
308.46	44.1089
311.90	44.2464

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320.08	31.1986
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323.87	43.6005
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334.37	28.2033
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338.28	31.6925
338.32	31.6937
338.32	31.6937
338.32	31.6937
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344.28	40.9534
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351.93	45.7918
356.01	21.8238
364.49	45.1025
366.42	34.7473
383.85	25.5361
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388.63	30.0478
391.69	38.9753
400.66	25.8604
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402.40	31.2509
404.85	30.4125
410.95	28.7510
414.70	31.5318
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427.87	29.0996
433.94	23.7438
453.88	23.1426
463.37	22.3572
468.07	24.2949
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476.78	29.1306
477.60	21.6243
487.02	26.4837
492.35	32.2667
497.08	34.2658
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514.00	117.3340
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529.87	0.0000
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537.26	21.4528
546.56	0.0000
563.25	17.8154
569.33	28.8000
569.50	19.8639
569.70	19.8663
583.19	14.0098
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604.72	29.3584
609.32	35.5191
609.32	35.5191
610.33	29.4452
614.28	26.4539
618.01	20.3888
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621.93	25.5379
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636.99	24.7068
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661.66	19.8019
661.66	19.8019
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666.50	25.0723
677.62	16.8052

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696.51	21.1969
697.00	21.2018
702.65	19.1321
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722.91	11.8020
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724.19	27.9114
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733.00	18.3229
735.93	19.4266
739.50	30.2678
747.24	18.4407
752.31	18.4822
753.82	14.1426
756.73	17.4287
763.94	24.0403
765.81	12.0299
766.42	16.4090
777.92	26.3855
778.90	26.3965
783.70	16.5317
785.37	19.8523
795.86	21.0486
801.95	16.6599
810.29	14.4889
810.76	12.2622
815.77	15.6389
818.51	8.9465
832.01	13.4941
834.85	11.7086
836.80	0.0000
846.77	17.1946
856.80	17.2637
860.56	17.2893
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873.19	16.4610
875.33	0.0000
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884.68	11.9415
889.28	16.5639
898.04	13.8494
911.20	16.7025
911.20	16.7025
911.20	16.7025
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944.13	13.1506
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949.00	12.2329
962.29	2.8366
964.08	15.1383
966.15	16.0960
968.97	11.3736
968.97	11.3736
968.97	11.3736
983.53	7.6217
996.26	6.6989
1001.03	16.2957
1004.73	16.3164
1037.84	11.6490
1038.76	0.0000
1048.07	5.8444
1050.41	15.5977
1050.41	15.5977
1063.66	16.6456
1085.87	7.8902
1099.45	11.8875
1112.07	9.9463
1115.54	11.9484

1120.29	11.9666
1120.29	11.9666
1120.55	11.9672
1121.30	13.9651
1131.51	0.0000
1173.23	12.1646
1177.93	10.1514
1189.05	12.2227
1204.77	11.2567
1221.41	14.3972
1231.02	5.1565
1235.36	10.3257
1238.28	10.3345
1260.41	0.0000
1271.85	14.6084
1274.44	8.3539
1274.54	8.3539
1291.59	12.5912
1298.22	0.0000
1312.11	2.1105
1332.49	6.3671
1365.19	10.7056
1368.63	0.0000
1384.29	6.4562
1408.01	3.2481
1457.56	0.0000
1460.82	5.4871
1489.16	2.7629
1505.03	6.4722
1596.21	8.5045
1620.50	4.7514
1678.03	0.0000
1690.97	5.7930
1764.49	3.9242
1764.49	3.9242
1770.23	11.7871
1771.35	9.8246
1791.20	0.0000
1836.06	2.9877

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202061469

Total Uranium Activity	-3.8465E-01	ug/g
Total Uranium Counting Unc.	1.3173E+00	ug/g
Total Uranium Tpu	6.7208E-07	ug/g
Total Uranium Mda	1.2056E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 13:13:06.61

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061470.CNF;1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 20-MAR-2010 11:11:45
Sample ID         : G1202061470          Sample quantity  : 1.33660E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 961099                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.42*	79	553	0.99	126.05	122	8	1.10E-02	53.8	
2	3	74.75*	627	557	1.33	148.71	142	19	8.71E-02	7.8	5.22E+00
3	3	77.09	749	413	1.03	153.41	142	19	1.04E-01	5.8	
4	1	87.29*	276	474	1.13	173.80	162	29	3.83E-02	14.3	1.64E+00
5	1	89.98	163	381	1.01	179.19	162	29	2.26E-02	20.8	
6	1	92.84*	301	409	1.10	184.91	162	29	4.18E-02	13.7	
7	0	185.87*	199	470	1.01	371.00	365	12	2.77E-02	23.7	
8	0	209.80	197	366	1.10	418.88	414	12	2.73E-02	20.8	
9	4	238.66*	1434	187	1.08	476.61	472	15	1.99E-01	3.1	1.39E+00
10	4	241.56	327	251	1.73	482.41	472	15	4.55E-02	14.0	
11	0	270.07*	131	207	1.35	539.43	535	10	1.82E-02	22.5	
12	0	277.41	89	252	1.32	554.12	549	11	1.24E-02	36.2	
13	0	295.29*	425	263	1.19	589.88	585	11	5.91E-02	8.9	
14	0	300.12	69	143	0.88	599.54	596	7	9.62E-03	31.1	
15	0	328.29	50	188	1.08	655.89	650	9	6.93E-03	51.6	
16	0	338.29*	298	177	0.86	675.89	671	9	4.13E-02	10.1	
17	0	351.90*	778	178	1.29	703.11	697	11	1.08E-01	4.9	
18	0	409.11	52	151	1.55	817.53	812	11	7.21E-03	48.5	
19	0	463.47	97	142	1.86	926.27	920	14	1.34E-02	28.2	
20	0	510.85*	142	172	1.93	1021.02	1013	17	1.97E-02	25.2	
21	0	583.16*	543	69	1.61	1165.63	1160	11	7.54E-02	5.3	
22	0	609.41*	557	108	1.33	1218.14	1212	14	7.74E-02	5.9	
23	0	727.28	109	69	1.51	1453.84	1448	11	1.52E-02	17.5	
24	0	768.10	80	71	1.31	1535.47	1530	11	1.10E-02	23.4	
25	0	794.33	71	67	0.81	1587.94	1581	14	9.88E-03	27.1	
26	0	861.35	64	85	2.01	1721.95	1713	13	8.92E-03	32.1	
27	0	911.39*	361	57	1.84	1822.01	1815	16	5.01E-02	7.2	
28	1	964.34	59	46	2.00	1927.87	1921	24	8.25E-03	27.1	2.06E+00
29	1	969.05*	206	40	2.01	1937.30	1921	24	2.86E-02	9.8	
30	0	1120.65*	96	74	1.14	2240.41	2234	14	1.34E-02	22.2	
31	0	1238.30*	59	100	1.55	2475.61	2468	18	8.15E-03	42.3	
32	0	1460.75*	1490	21	2.03	2920.29	2909	19	2.07E-01	2.7	
33	0	1630.80	18	14	1.81	3260.19	3254	11	2.52E-03	46.1	
34	0	1729.50	33	0	2.36	3457.45	3452	11	4.58E-03	17.4	
35	0	1764.31*	109	0	2.04	3527.02	3519	16	1.51E-02	10.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 20-MAR-2010 13:13:10

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061470.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 25-FEB-2010 12:00:00 Acquisition date : 20-MAR-2010 11:11:45
Sample ID : G1202061470 Sample quantity : 133.66 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.69 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.653E+01	3.855E+00	4.196E-01	3.806E-02	87.039
CD-109	+	88.03	*	3.907E+00	1.178E+00	1.229E+00	1.157E-01	3.179
SN-126	+	64.28		7.208E-01	7.830E-01	8.337E-01	1.213E-01	0.865
	+	86.94		1.569E+00	7.916E-01	4.989E-01	2.071E-01	3.145
	+	87.57	*	3.774E-01	1.138E-01	1.193E-01	1.117E-02	3.165
TL-208	+	277.37		9.019E-01	6.619E-01	6.415E-01	8.057E-02	1.406
	+	583.19	*	7.590E-01	1.079E-01	5.782E-02	5.498E-03	13.128
	+	860.56		8.521E-01	5.538E-01	4.699E-01	5.006E-02	1.813
BI-211		72.87		7.364E+00	3.832E+00	6.002E+00	4.806E-01	1.227
	+	351.06	*	4.802E+00	6.374E-01	3.452E-01	3.076E-02	13.910
PB-212	+	74.82		3.768E+00	7.576E-01	6.030E-01	7.655E-02	6.248
	+	77.11		2.575E+00	3.688E-01	3.466E-01	2.892E-02	7.428
	+	238.63	*	1.976E+00	2.265E-01	9.774E-02	9.463E-03	20.214
	+	300.09		1.485E+00	9.367E-01	1.281E+00	1.355E-01	1.160
BI-214	+	609.32	*	1.510E+00	2.370E-01	1.120E-01	1.163E-02	13.474
	+	1120.29		1.350E+00	6.160E-01	4.859E-01	5.324E-02	2.778
	+	1764.49		2.111E+00	4.586E-01	3.179E-01	2.690E-02	6.642
PB-214	+	74.82		6.678E+00	1.289E+00	1.069E+00	1.216E-01	6.248
	+	77.11		4.539E+00	7.502E-01	6.111E-01	7.170E-02	7.428
	+	242.00		2.736E+00	8.183E-01	5.589E-01	5.769E-02	4.895
	+	295.22		1.616E+00	3.377E-01	2.440E-01	2.647E-02	6.622
	+	351.93	*	1.743E+00	2.505E-01	1.256E-01	1.315E-02	13.880
RA-224	+	240.99	*	4.837E+00	1.419E+00	1.048E+00	8.946E-02	4.617
RA-226	+	609.32	*	1.510E+00	2.370E-01	1.120E-01	1.163E-02	13.474
	+	1120.29		1.350E+00	6.160E-01	4.859E-01	5.324E-02	2.778
	+	1764.49		2.111E+00	4.586E-01	3.179E-01	2.690E-02	6.642
AC-228	+	338.32		2.044E+00	9.478E-01	4.433E-01	1.848E-01	4.612
	+	911.20	*	2.440E+00	4.713E-01	2.438E-01	3.129E-02	10.010
	+	968.97		2.401E+00	7.612E-01	3.971E-01	9.868E-02	6.048
RA-228	+	338.32		2.044E+00	9.478E-01	4.433E-01	1.848E-01	4.612
	+	911.20	*	2.440E+00	4.713E-01	2.438E-01	3.129E-02	10.010
	+	968.97		2.401E+00	7.612E-01	3.971E-01	9.868E-02	6.048
TH-228	+	74.82		3.768E+00	6.645E-01	6.030E-01	4.968E-02	6.248
	+	77.11		2.575E+00	3.688E-01	3.466E-01	2.892E-02	7.428

Sample ID : G1202061470 Acquisition date : 20-MAR-2010 11:11:45

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.976E+00	2.265E-01	9.774E-02	9.463E-03	20.214
	+	300.09		1.485E+00	1.296E+00	1.281E+00	7.840E-01	1.160
TH-232	+	338.32		2.044E+00	4.494E-01	4.433E-01	3.787E-02	4.612
	+	911.20	*	2.440E+00	4.713E-01	2.438E-01	3.129E-02	10.010
	+	968.97		2.401E+00	7.612E-01	3.971E-01	9.868E-02	6.048
TH-234	+	63.29	*	1.870E+00	2.041E+00	2.256E+00	4.019E-01	0.829
	+	92.59		3.423E+00	1.210E+00	1.001E+00	2.227E-01	3.420
U-235	+	89.96		2.310E+00	1.118E+00	1.245E+00	3.091E-01	1.856
	+	93.35		2.585E+00	9.304E-01	7.521E-01	1.748E-01	3.437
		143.76	*	-2.305E-02	2.241E-01	3.550E-01	5.914E-02	-0.065
		163.33		-4.212E-01	5.094E-01	7.624E-01	1.345E-01	-0.552
	+	185.72		1.784E-01	8.576E-02	6.669E-02	5.418E-03	2.675
		205.31		2.742E-01	5.673E-01	8.463E-01	1.523E-01	0.324
NP-237	+	86.48	*	1.126E+00	4.136E-01	3.597E-01	8.244E-02	3.131
		95.86		3.349E-01	1.034E+00	1.522E+00	3.662E-01	0.220
U-238	+	63.29	*	1.870E+00	2.041E+00	2.256E+00	4.019E-01	0.829
	+	92.59		3.423E+00	9.896E-01	1.001E+00	9.042E-02	3.420
ANH-511	+	511.00	*	1.513E-01	7.732E-02	4.845E-02	4.239E-03	3.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	8.917E-02	4.206E-01	6.822E-01	6.330E-02	0.131
NA-22		1274.54	*	1.471E-02	5.546E-02	9.328E-02	7.954E-03	0.158
NA-24		1368.63	*	-4.548E+02	5.546E-02	Half-Life too short		
SC-46		889.28	*	3.950E-02	5.096E-02	8.753E-02	8.967E-03	0.451
	+	1120.55		2.436E-01	1.100E-01	1.507E-01	1.305E-02	1.617
V-48		944.13		-1.144E-01	1.426E+00	2.277E+00	2.292E-01	-0.050
		983.53	*	1.305E-02	1.062E-01	1.802E-01	1.772E-02	0.072
		1312.11		3.993E-02	1.291E-01	2.186E-01	1.896E-02	0.183
CR-51		320.08	*	4.916E-01	4.903E-01	8.447E-01	7.667E-02	0.582
MN-54		834.85	*	2.827E-02	4.421E-02	7.532E-02	7.517E-03	0.375
CO-56		846.77	*	-1.096E-02	4.514E-02	7.158E-02	7.187E-03	-0.153
		1037.84		-7.782E-02	3.546E-01	5.812E-01	5.724E-02	-0.134
	+	1238.28		2.462E-01	2.092E-01	2.209E-01	1.904E-02	1.115
		1771.35		7.421E-02	2.234E-01	3.812E-01	3.220E-02	0.195
CO-57		122.06	*	-1.904E-03	2.850E-02	4.569E-02	3.789E-03	-0.042
		136.47		-9.810E-02	2.323E-01	3.644E-01	3.191E-02	-0.269
CO-58		810.76	*	-2.883E-03	4.617E-02	7.480E-02	7.383E-03	-0.039
FE-59		1099.45	*	-1.056E-01	1.176E-01	1.796E-01	1.717E-02	-0.588
		1291.59		-9.149E-02	1.543E-01	2.373E-01	2.316E-02	-0.386
CO-60		1173.23		-1.060E-02	5.393E-02	8.793E-02	7.096E-03	-0.121
		1332.49	*	1.448E-02	4.070E-02	6.952E-02	6.085E-03	0.208
ZN-65		1115.54	*	-4.124E-02	1.183E-01	1.620E-01	1.413E-02	-0.255
SE-75		121.12		-1.343E-01	1.529E-01	2.355E-01	2.550E-02	-0.570
		136.00		-2.716E-02	4.551E-02	7.080E-02	5.771E-03	-0.384
		264.66	*	1.698E-02	4.938E-02	7.766E-02	6.739E-03	0.219
		279.54		1.580E-01	1.328E-01	2.080E-01	1.871E-02	0.760

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.66		4.850E-03	3.135E-01	5.078E-01	5.449E-02	0.010
SR-85		514.00	*	7.766E-02	4.692E-02	7.794E-02	6.827E-03	0.996
Y-88		898.04		-6.352E-03	5.026E-02	8.028E-02	8.284E-03	-0.079
		1836.06	*	5.351E-03	4.248E-02	7.186E-02	5.950E-03	0.074
Y-91		1204.77	*	-1.781E+01	2.892E+01	4.543E+01	3.732E+00	-0.392
NB-94		702.65	*	2.068E-02	3.629E-02	6.221E-02	5.724E-03	0.332
		871.09		-7.244E-03	3.967E-02	6.319E-02	6.420E-03	-0.115
NB-95		765.81	*	6.259E-02	5.744E-02	9.041E-02	8.677E-03	0.692
NB-95M		235.69	*	-3.498E-02	1.577E-01	2.289E-01	2.240E-02	-0.153
ZR-95		724.19		-2.533E-03	1.269E-01	1.802E-01	1.805E-02	-0.014
		756.73	*	3.813E-02	9.066E-02	1.515E-01	1.570E-02	0.252
MO-99		140.51		-2.441E-04	9.066E-02	Half-Life too short		
		181.07		1.195E-04	9.066E-02	Half-Life too short		
		366.42		-1.711E-04	9.066E-02	Half-Life too short		
		739.50	*	-6.280E-05	9.066E-02	Half-Life too short		
		777.92		-3.416E-04	9.066E-02	Half-Life too short		
TC-99M		140.51	*	-1.527E+20	9.066E-02	Half-Life too short		
RU-103		497.08	*	-2.450E-02	4.943E-02	8.050E-02	1.128E-02	-0.304
	+	610.33		1.790E+01	3.631E+00	3.771E+00	6.230E-01	4.746
RH-106		621.93	*	-3.394E-02	3.362E-01	5.542E-01	7.465E-02	-0.061
		1050.41		5.037E+00	2.890E+00	5.447E+00	5.082E-01	0.925
RU-106		621.93	*	-3.394E-02	3.362E-01	5.542E-01	4.957E-02	-0.061
		1050.41		5.037E+00	2.890E+00	5.447E+00	5.082E-01	0.925
AG-108M		433.94	*	-7.539E-04	3.051E-02	4.902E-02	4.248E-03	-0.015
		614.28		2.275E-02	4.015E-02	6.139E-02	5.659E-03	0.371
		722.91		3.217E-02	4.231E-02	6.548E-02	6.278E-03	0.491
AG-110M		657.76	*	-2.608E-02	3.870E-02	6.058E-02	5.558E-03	-0.430
		677.62		-2.589E-04	3.481E-01	5.746E-01	5.326E-02	0.000
		706.68		-1.423E-01	2.360E-01	3.694E-01	3.494E-02	-0.385
		763.94		3.276E-02	1.833E-01	2.654E-01	2.600E-02	0.123
		884.68		-1.645E-02	6.093E-02	9.620E-02	1.006E-02	-0.171
		937.49		-2.429E-02	1.433E-01	2.274E-01	2.357E-02	-0.107
		1384.29		-2.144E-02	1.929E-01	3.113E-01	2.810E-02	-0.069
		1505.03		-3.322E-01	3.134E-01	4.234E-01	3.737E-02	-0.785
SN-113		391.69	*	-5.189E-02	5.258E-02	7.955E-02	6.659E-03	-0.652
CD-115		260.90		1.639E-04	5.258E-02	Half-Life too short		
		492.35		3.479E-04	5.258E-02	Half-Life too short		
		527.90	*	5.096E-05	5.258E-02	Half-Life too short		
SN-117M		156.02		1.408E+00	3.671E+00	5.927E+00	4.729E-01	0.237
		158.56	*	-1.184E-02	8.931E-02	1.408E-01	1.123E-02	-0.084
TE-123M		159.00	*	8.438E-03	3.257E-02	5.226E-02	4.196E-03	0.161
SB-124		602.73		-1.319E-02	5.061E-02	7.120E-02	6.366E-03	-0.185
		645.85		3.277E-01	5.680E-01	9.808E-01	9.235E-02	0.334
		722.78		3.358E-01	4.638E-01	7.153E-01	6.806E-02	0.469
		1690.97	*	9.716E-03	8.745E-02	1.487E-01	1.336E-02	0.065
SB-125		427.87	*	2.364E-02	1.024E-01	1.674E-01	1.425E-02	0.141
	+	463.37		9.170E-01	5.239E-01	5.847E-01	5.379E-02	1.568
		600.60		2.893E-02	1.868E-01	3.144E-01	3.004E-02	0.092
		635.95		-2.465E-02	3.083E-01	5.083E-01	4.890E-02	-0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	2.358E+00	1.177E+01	1.917E+01	1.974E+00	0.123
I-126		388.63		3.384E-01	2.789E-01	4.834E-01	3.927E-02	0.700
		666.33	*	1.209E-01	3.770E-01	6.371E-01	5.705E-02	0.190
		753.82		3.211E-02	3.106E+00	5.092E+00	4.850E-01	0.006
SB-126		414.70		1.125E-02	1.404E-01	1.995E-01	1.647E-02	0.056
		666.50		3.742E-02	1.316E-01	2.219E-01	1.987E-02	0.169
		695.00		-3.737E-02	1.327E-01	2.139E-01	1.957E-02	-0.175
		697.00		-6.270E-02	4.489E-01	7.316E-01	6.704E-02	-0.086
		720.70	*	-2.386E-02	2.640E-01	3.716E-01	3.462E-02	-0.064
		856.80		1.749E-01	9.630E-01	1.378E+00	1.391E-01	0.127
SB-127		252.40		2.697E+00	1.817E+01	3.041E+01	1.286E+01	0.089
		473.00		-1.764E+00	7.157E+00	1.123E+01	1.695E+00	-0.157
		685.70	*	1.660E+00	5.598E+00	9.448E+00	1.346E+00	0.176
		783.70		1.623E+01	1.694E+01	2.936E+01	4.528E+00	0.553
I-131		80.19		-9.924E+00	1.354E+01	1.480E+01	1.294E+00	-0.670
		284.31		2.663E+00	3.024E+00	5.210E+00	4.782E-01	0.511
		364.49	*	7.050E-02	2.293E-01	3.807E-01	3.392E-02	0.185
		636.99		1.341E+00	3.413E+00	5.816E+00	5.517E-01	0.231
TE-132		49.72		-1.408E+00	1.008E+02	1.679E+02	2.207E+01	-0.008
		111.76		5.774E+01	2.003E+02	3.226E+02	4.294E+01	0.179
		116.30		9.969E+01	1.712E+02	2.817E+02	3.742E+01	0.354
		228.16	*	-3.294E+00	4.469E+00	7.190E+00	1.263E+00	-0.458
BA-133		81.00		-1.248E-01	1.423E-01	1.525E-01	2.372E-02	-0.819
	+	276.40		8.349E-01	6.151E-01	6.995E-01	9.890E-02	1.193
		302.85		-7.004E-02	1.668E-01	2.330E-01	3.052E-02	-0.301
		356.01	*	-3.942E-02	5.285E-02	7.035E-02	9.024E-03	-0.560
		383.85		-1.040E-01	3.199E-01	5.079E-01	6.157E-02	-0.205
I-133		529.87	*	8.586E-01	3.199E-01	Half-Life too short		
		875.33		3.316E+01	3.199E-01	Half-Life too short		
		1298.22		2.322E+01	3.199E-01	Half-Life too short		
CS-134		563.25		2.341E-01	3.955E-01	6.861E-01	6.155E-02	0.341
		569.33		2.292E-01	1.913E-01	3.458E-01	3.117E-02	0.663
		604.72		5.565E-03	3.708E-02	5.447E-02	4.882E-03	0.102
		795.86	*	8.606E-02	6.211E-02	9.972E-02	9.798E-03	0.863
		801.95		-2.562E-01	4.692E-01	6.786E-01	6.682E-02	-0.378
		1365.19		1.107E+00	1.351E+00	2.423E+00	2.224E-01	0.457
CS-135		268.22	*	1.739E-01	1.802E-01	2.768E-01	2.764E-02	0.628
I-135		546.56		4.570E+18	1.802E-01	Half-Life too short		
		836.80		3.089E+18	1.802E-01	Half-Life too short		
		1038.76		1.119E+18	1.802E-01	Half-Life too short		
		1131.51		2.340E+18	1.802E-01	Half-Life too short		
		1260.41	*	-1.273E+18	1.802E-01	Half-Life too short		
		1457.56		3.829E+20	1.802E-01	Half-Life too short		
		1678.03		-9.926E+17	1.802E-01	Half-Life too short		
		1791.20		-4.358E+18	1.802E-01	Half-Life too short		
CS-136		153.25		-7.899E-01	1.417E+00	2.194E+00	2.139E-01	-0.360
		176.60		-2.188E-01	7.441E-01	1.247E+00	1.122E-01	-0.175
		273.65		2.480E-01	1.240E+00	1.337E+00	1.256E-01	0.185
		340.55		5.902E-01	2.920E-01	4.614E-01	4.093E-02	1.279

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		818.51		-1.005E-01	1.221E-01	1.826E-01	1.810E-02	-0.550
		1048.07	*	8.955E-02	1.855E-01	3.220E-01	3.122E-02	0.278
		1235.36		1.608E+00	1.138E+00	1.835E+00	2.125E-01	0.876
BA-137M		661.66	*	-8.205E-03	3.986E-02	6.492E-02	5.792E-03	-0.126
CS-137		661.66	*	-8.667E-03	4.211E-02	6.858E-02	6.129E-03	-0.126
CE-139		165.86	*	-1.147E-02	3.473E-02	5.413E-02	4.309E-03	-0.212
BA-140		162.66		-8.540E-01	1.414E+00	2.158E+00	1.854E-01	-0.396
		304.85		-9.494E-01	2.331E+00	3.430E+00	1.005E+00	-0.277
		423.72		-1.661E+00	3.445E+00	5.308E+00	1.742E+00	-0.313
		537.26	*	-4.801E-02	4.427E-01	7.369E-01	2.503E-01	-0.065
LA-140	+	328.76		6.501E-01	6.735E-01	9.107E-01	8.274E-02	0.714
		487.02		-9.901E-02	2.354E-01	3.635E-01	3.339E-02	-0.272
		815.77		-9.141E-02	5.224E-01	8.363E-01	9.009E-02	-0.109
		1596.21	*	-8.394E-02	1.473E-01	2.164E-01	1.896E-02	-0.388
CE-141		145.44	*	5.190E-02	8.156E-02	1.333E-01	1.092E-02	0.389
CE-143		57.36		-3.216E-02	8.156E-02	Half-Life too short		
		293.27	*	3.756E-02	8.156E-02	Half-Life too short		
		664.57		9.842E-03	8.156E-02	Half-Life too short		
		721.93		3.600E-02	8.156E-02	Half-Life too short		
CE-144		80.12		-2.731E+00	3.790E+00	4.148E+00	3.572E-01	-0.658
		133.52	*	-8.688E-02	2.279E-01	3.584E-01	5.377E-02	-0.242
PM-144		476.78		-1.851E-02	7.710E-02	1.212E-01	1.134E-02	-0.153
		618.01		-9.478E-03	3.361E-02	5.462E-02	5.015E-03	-0.174
		696.49	*	-1.008E-02	3.807E-02	6.144E-02	5.632E-03	-0.164
PR-144		696.51	*	-7.404E-01	2.862E+00	4.622E+00	4.233E-01	-0.160
		1489.16		8.248E+00	1.207E+01	2.178E+01	1.923E+00	0.379
PM-146		453.88	*	3.378E-02	4.762E-02	7.988E-02	8.379E-03	0.423
		633.25		2.287E-01	1.543E+00	2.583E+00	9.886E-01	0.089
		735.93		-1.463E-02	1.605E-01	2.613E-01	7.391E-02	-0.056
		747.24		1.820E-03	1.151E-01	1.888E-01	2.854E-02	0.010
ND-147	+	91.11		1.228E+00	5.241E-01	8.843E-01	8.689E-02	1.388
		319.41		4.305E-02	6.020E+00	9.887E+00	8.534E-01	0.004
		531.02	*	-2.701E-01	1.017E+00	1.676E+00	2.525E-01	-0.161
PM-149		285.90	*	2.598E-04	1.017E+00	Half-Life too short		
EU-152		121.78		-2.790E-03	7.947E-02	1.276E-01	1.227E-02	-0.022
		244.70		-1.131E-01	3.732E-01	5.364E-01	4.591E-02	-0.211
		344.28	*	-9.983E-02	1.094E-01	1.689E-01	1.524E-02	-0.591
		778.90		-1.807E-01	2.830E-01	4.357E-01	4.214E-02	-0.415
	+	964.08		7.463E-01	4.109E-01	6.526E-01	6.496E-02	1.144
		1085.87		-6.237E-02	4.310E-01	7.092E-01	6.390E-02	-0.088
		1112.07		1.971E-01	3.555E-01	5.937E-01	5.196E-02	0.332
		1408.01		2.515E-01	1.862E-01	3.526E-01	3.109E-02	0.713
GD-153		69.67		5.014E-02	2.050E+00	3.021E+00	2.351E-01	0.017
		97.43	*	-1.226E-01	1.052E-01	1.423E-01	1.245E-02	-0.861
		103.18		-1.331E-01	1.278E-01	1.979E-01	1.685E-02	-0.673
EU-154		123.07		1.017E-02	5.748E-02	9.305E-02	1.031E-02	0.109
		723.31		1.513E-01	1.949E-01	3.017E-01	3.061E-02	0.501
		873.19		2.322E-01	3.328E-01	5.692E-01	7.435E-02	0.408
		996.26		-4.084E-01	3.968E-01	5.928E-01	1.070E-01	-0.689

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1004.73		1.028E-02	2.456E-01	4.131E-01	5.142E-02	0.025
		1274.44	*	3.881E-02	1.563E-01	2.625E-01	2.967E-02	0.148
EU-155	+	86.55		4.591E-01	1.385E-01	2.046E-01	1.911E-02	2.244
		105.31	*	3.799E-02	1.182E-01	1.936E-01	1.657E-02	0.196
TB-160	+	86.79		1.309E+00	3.947E-01	5.827E-01	5.410E-02	2.247
		197.04		2.199E-01	6.620E-01	1.122E+00	9.226E-02	0.196
		215.65		6.383E-01	9.304E-01	1.430E+00	1.197E-01	0.446
		298.57		2.152E-01	1.966E-01	2.320E-01	2.012E-02	0.928
		879.36	*	-6.715E-02	1.831E-01	2.867E-01	2.924E-02	-0.234
		962.29		1.891E+00	6.916E-01	1.232E+00	1.227E-01	1.535
		966.15		1.527E+00	3.479E-01	6.452E-01	6.414E-02	2.367
		1177.93		8.431E-03	4.666E-01	7.738E-01	6.262E-02	0.011
		1271.85		7.555E-01	9.777E-01	1.708E+00	1.453E-01	0.442
HO-166M		80.57		-3.352E-01	4.038E-01	4.377E-01	3.787E-02	-0.766
	+	184.41		1.417E-01	6.813E-02	7.245E-02	5.877E-03	1.956
		280.46		1.438E-02	9.553E-02	1.404E-01	1.217E-02	0.102
		410.95		3.606E-01	2.862E-01	4.482E-01	3.688E-02	0.805
		711.68	*	-3.069E-02	6.524E-02	1.031E-01	9.550E-03	-0.298
		752.31		-1.499E-01	3.097E-01	4.867E-01	4.632E-02	-0.308
		810.29		-4.194E-02	6.577E-02	1.008E-01	9.927E-03	-0.416
TA-182		67.75		-6.236E-02	1.288E-01	1.980E-01	1.516E-02	-0.315
		100.11		1.775E-01	2.003E-01	3.353E-01	2.892E-02	0.529
		152.43		-1.843E-01	4.002E-01	6.229E-01	4.977E-02	-0.296
		222.11		3.990E-02	4.052E-01	6.819E-01	5.742E-02	0.059
	+	1121.30		6.634E-01	2.994E-01	3.998E-01	3.460E-02	1.659
		1189.05		3.151E-01	3.903E-01	6.840E-01	5.570E-02	0.461
		1221.41	*	-5.680E-02	2.212E-01	3.571E-01	2.960E-02	-0.159
		1231.02		1.062E-01	6.081E-01	8.810E-01	7.340E-02	0.121
IR-192	+	295.96		1.286E+00	2.557E-01	3.494E-01	3.053E-02	3.681
		308.46		1.818E-02	1.089E-01	1.808E-01	1.573E-02	0.101
		316.51	*	-2.292E-02	3.964E-02	6.290E-02	5.445E-03	-0.364
		468.07		6.448E-02	7.966E-02	1.208E-01	1.111E-02	0.534
HG-203		70.83		1.216E+00	1.750E+00	2.637E+00	4.131E-01	0.461
		72.87		2.061E+00	1.105E+00	1.679E+00	2.553E-01	1.227
		279.20	*	8.010E-02	5.126E-02	8.167E-02	7.258E-03	0.981
BI-207		72.81		3.717E-01	2.188E-01	3.409E-01	2.728E-02	1.090
	+	74.97		1.086E+00	1.912E-01	2.596E-01	2.120E-02	4.185
		569.70		2.399E-02	2.972E-02	5.247E-02	4.671E-03	0.457
		1063.66	*	3.062E-02	6.255E-02	1.084E-01	9.986E-03	0.283
		1770.23		3.538E-01	3.730E-01	7.462E-01	6.305E-02	0.474
PB-210		46.54	*	9.560E-04	3.352E+00	5.528E+00	5.107E-01	0.000
PB-211		404.85	*	-5.048E-01	1.041E+00	1.372E+00	6.631E-01	-0.368
		427.09		5.674E-01	1.719E+00	2.798E+00	1.293E+00	0.203
		832.01		1.228E-01	1.169E+00	1.914E+00	9.971E-01	0.064
BI-212	+	727.33	*	2.345E+00	8.766E-01	1.308E+00	1.698E-01	1.793
		785.37		4.777E-02	3.704E+00	6.054E+00	5.878E-01	0.008
		1620.50		2.067E+00	2.361E+00	4.342E+00	3.792E-01	0.476
RN-219	+	271.23		7.967E-01	3.678E-01	4.841E-01	4.978E-02	1.646
		401.81	*	1.652E-01	4.728E-01	7.799E-01	1.140E-01	0.212

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-223		81.07		-2.843E-01	3.197E-01	3.446E-01	2.998E-02	-0.825
		83.79		2.724E-01	1.424E-01	2.217E-01	1.988E-02	1.229
		94.87		1.186E+00	5.292E-01	8.351E-01	7.420E-02	1.420
		144.24		4.512E-01	7.469E-01	1.216E+00	1.106E-01	0.371
		154.21		2.601E-01	4.215E-01	6.869E-01	6.092E-02	0.379
	+	269.46		6.190E-01	2.839E-01	3.671E-01	3.238E-02	1.686
		323.87	*	1.083E-01	7.959E-01	1.156E+00	2.003E-01	0.094
	+	338.28		8.113E+00	1.911E+00	2.710E+00	3.256E-01	2.994
AC-227		79.69		-1.375E+00	1.868E+00	2.030E+00	3.494E-01	-0.677
		235.96		1.747E-01	1.833E-01	2.824E-01	2.895E-02	0.619
		256.23	*	-8.000E-02	2.467E-01	4.031E-01	4.855E-02	-0.198
	+	299.98		1.634E+00	1.037E+00	1.682E+00	2.142E-01	0.972
		304.50		-8.296E-03	1.880E+00	2.715E+00	4.494E-01	-0.003
		334.37		-1.884E+00	2.230E+00	2.967E+00	4.616E-01	-0.635
TH-227		79.80		-1.799E+00	2.474E+00	2.676E+00	5.825E-01	-0.672
		235.96		1.747E-01	1.832E-01	2.824E-01	2.728E-02	0.619
		256.23	*	-8.000E-02	2.468E-01	4.031E-01	5.482E-02	-0.198
	+	299.98		1.634E+00	1.037E+00	1.682E+00	2.142E-01	0.972
		304.50		-8.296E-03	1.880E+00	2.715E+00	4.494E-01	-0.003
		334.37		-1.884E+00	2.230E+00	2.967E+00	4.616E-01	-0.635
TH-229		85.43		7.028E-01	2.475E-01	3.908E-01	3.571E-02	1.798
	+	88.47		5.819E-01	1.754E-01	2.584E-01	2.422E-02	2.252
		193.51	*	2.917E-02	5.472E-01	9.257E-01	7.583E-02	0.032
	+	210.85		3.874E+00	1.641E+00	1.750E+00	1.459E-01	2.214
PA-231		283.69	*	1.068E+00	1.529E+00	2.529E+00	3.697E-01	0.422
	+	301.36		1.050E+00	6.650E-01	1.099E+00	1.339E-01	0.955
TH-231		81.07		-2.843E-01	3.197E-01	3.446E-01	2.998E-02	-0.825
		83.79		2.724E-01	1.424E-01	2.217E-01	1.988E-02	1.229
		94.87		1.186E+00	5.292E-01	8.351E-01	7.420E-02	1.420
		144.24		4.512E-01	7.469E-01	1.216E+00	1.106E-01	0.371
		154.21		2.601E-01	4.215E-01	6.869E-01	6.092E-02	0.379
	+	269.46		6.190E-01	2.839E-01	3.671E-01	3.238E-02	1.686
		323.87	*	1.083E-01	7.959E-01	1.156E+00	2.003E-01	0.094
	+	338.28		8.113E+00	1.911E+00	2.710E+00	3.256E-01	2.994
PA-233	+	300.13		7.394E-01	4.726E-01	7.635E-01	1.134E-01	0.968
		311.90	*	-2.652E-02	6.644E-02	1.067E-01	9.487E-03	-0.249
		340.48		2.059E+00	9.641E-01	1.358E+00	3.264E-01	1.516
PA-234		94.67		5.649E-01	2.052E-01	3.172E-01	3.996E-02	1.781
		98.44		9.107E-03	1.019E-01	1.581E-01	8.822E-02	0.058
		111.00		3.747E-02	2.017E-01	3.282E-01	3.902E-02	0.114
		131.20		-6.786E-02	1.228E-01	1.922E-01	1.564E-02	-0.353
		569.50		2.298E-01	2.652E-01	4.697E-01	4.181E-02	0.489
		733.00		2.541E-01	4.609E-01	6.919E-01	1.557E-01	0.367
		880.51		2.015E-01	3.195E-01	5.453E-01	5.564E-02	0.370
		883.24		-1.258E-02	3.522E-01	5.680E-01	3.831E-01	-0.022
		926.50		-1.822E-02	2.036E-01	3.254E-01	8.409E-02	-0.056
		946.00	*	-2.195E-01	3.430E-01	5.127E-01	9.981E-02	-0.428
		949.00		-1.266E-01	5.110E-01	8.024E-01	8.056E-02	-0.158
PA-234M		766.42		2.751E+01	2.021E+01	2.450E+01	1.247E+01	1.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	-3.737E-01	5.231E+00	8.721E+00	9.527E-01	-0.043
NP-239		99.53		1.049E-01	1.753E-01	2.908E-01	2.515E-02	0.361
		103.37		-7.543E-02	1.115E-01	1.756E-01	1.494E-02	-0.429
		106.12		5.772E-02	9.271E-02	1.535E-01	1.294E-02	0.376
		117.23	*	2.081E-01	4.238E-01	6.965E-01	5.772E-02	0.299
		228.18		-1.797E-01	2.402E-01	3.888E-01	3.290E-02	-0.462
	+	277.60		4.122E-01	3.002E-01	3.463E-01	3.001E-02	1.190
AM-241		59.54	*	8.004E-02	1.777E-01	2.693E-01	2.121E-02	0.297
CM-247	+	278.00		1.751E+00	1.275E+00	1.467E+00	1.272E-01	1.193
		287.50		-8.883E-01	1.280E+00	2.032E+00	1.763E-01	-0.437
		402.40	*	1.096E-02	4.553E-02	7.219E-02	5.896E-03	0.152
CF-249		252.80		5.947E-02	9.718E-01	1.622E+00	1.394E-01	0.037
		333.37		-1.316E-01	2.513E-01	3.199E-01	2.741E-02	-0.411
		388.16	*	2.968E-02	4.491E-02	7.561E-02	6.146E-03	0.393
CF-251		177.52	*	-7.539E-02	1.293E-01	2.138E-01	1.722E-02	-0.353
		227.38		4.979E-02	3.905E-01	6.570E-01	5.556E-02	0.076
		285.41		8.188E-01	2.231E+00	3.756E+00	3.258E-01	0.218

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061470    *
* Acquisition date : 20-MAR-2010 11:11:45 Detector SN#     :               *
* Detector ID        : GAM12                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:01.69       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-FEB-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202061470          Analyst initials: MXR1          *
* Batch Number       : 961099               Sample Quantity : 1.3366E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 25-FEB-2010 20:55:17 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.653E+01	3.778E+00	4.204E-01	0.000E+00
CD-109	3.907E+00	1.154E+00	1.293E+00	0.000E+00
SN-126	3.774E-01	1.115E-01	1.255E-01	0.000E+00
TL-208	7.590E-01	1.058E-01	5.889E-02	0.000E+00
BI-211	4.802E+00	6.247E-01	3.548E-01	0.000E+00
PB-212	1.976E+00	2.220E-01	1.011E-01	0.000E+00
BI-214	1.510E+00	2.323E-01	1.140E-01	0.000E+00
PB-214	1.743E+00	2.455E-01	1.290E-01	0.000E+00
RA-224	4.837E+00	1.391E+00	1.084E+00	0.000E+00
RA-226	1.510E+00	2.323E-01	1.140E-01	0.000E+00
AC-228	2.440E+00	4.619E-01	2.463E-01	0.000E+00
RA-228	2.440E+00	4.619E-01	2.463E-01	0.000E+00
TH-228	1.976E+00	2.220E-01	1.011E-01	0.000E+00
TH-232	2.440E+00	4.619E-01	2.463E-01	0.000E+00
TH-234	1.870E+00	2.000E+00	2.387E+00	0.000E+00
U-235	-2.305E-02	2.196E-01	3.705E-01	0.000E+00
NP-237	1.126E+00	4.053E-01	3.787E-01	0.000E+00
U-238	1.870E+00	2.000E+00	2.387E+00	0.000E+00
ANH-511	1.513E-01	7.578E-02	4.946E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	8.917E-02	4.122E-01	6.974E-01	0.000E+00	NOT IDENT.
NA-22	1.471E-02	5.435E-02	9.368E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.935E+09	0.000E+00	0.000E+00	SHORT HLIF
SC-46	3.950E-02	4.994E-02	8.848E-02	0.000E+00	FAIL ABUN
V-48	1.305E-02	1.041E-01	1.819E-01	0.000E+00	NOT IDENT.
CR-51	4.916E-01	4.805E-01	8.696E-01	0.000E+00	NOT IDENT.
MN-54	2.827E-02	4.333E-02	7.623E-02	0.000E+00	NOT IDENT.
CO-56	-1.096E-02	4.424E-02	7.242E-02	0.000E+00	FAIL ABUN

CO-57	-1.904E-03	2.793E-02	4.782E-02	0.000E+00	NOT IDENT.
CO-58	-2.883E-03	4.525E-02	7.574E-02	0.000E+00	NOT IDENT.
FE-59	-1.056E-01	1.153E-01	1.809E-01	0.000E+00	NOT IDENT.
CO-60	1.448E-02	3.988E-02	6.977E-02	0.000E+00	NOT IDENT.
ZN-65	-4.124E-02	1.159E-01	1.631E-01	0.000E+00	NOT IDENT.
SE-75	1.698E-02	4.839E-02	8.021E-02	0.000E+00	NOT IDENT.
SR-85	7.766E-02	4.598E-02	7.957E-02	0.000E+00	NOT IDENT.
Y-88	5.351E-03	4.163E-02	7.169E-02	0.000E+00	NOT IDENT.
Y-91	-1.781E+01	2.834E+01	4.568E+01	0.000E+00	NOT IDENT.
NB-94	2.068E-02	3.556E-02	6.316E-02	0.000E+00	NOT IDENT.
NB-95	6.259E-02	5.629E-02	9.165E-02	0.000E+00	NOT IDENT.
NB-95M	-3.498E-02	1.545E-01	2.369E-01	0.000E+00	NOT IDENT.
ZR-95	3.813E-02	8.885E-02	1.536E-01	0.000E+00	NOT IDENT.
MO-99	0.000E+00	9.787E+01	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	1.281E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.450E-02	4.844E-02	8.223E-02	0.000E+00	FAIL ABUN
RH-106	-3.394E-02	3.295E-01	5.638E-01	0.000E+00	NOT IDENT.
RU-106	-3.394E-02	3.295E-01	5.638E-01	0.000E+00	NOT IDENT.
AG-108M	-7.539E-04	2.990E-02	5.020E-02	0.000E+00	NOT IDENT.
AG-110M	-2.608E-02	3.793E-02	6.158E-02	0.000E+00	NOT IDENT.
SN-113	-5.189E-02	5.153E-02	8.160E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.342E+02	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.184E-02	8.753E-02	1.468E-01	0.000E+00	NOT IDENT.
TE-123M	8.438E-03	3.192E-02	5.445E-02	0.000E+00	NOT IDENT.
SB-124	9.716E-03	8.570E-02	1.486E-01	0.000E+00	NOT IDENT.
SB-125	2.364E-02	1.003E-01	1.715E-01	0.000E+00	FAIL ABUN
TE-125M	2.358E+00	1.153E+01	2.010E+01	0.000E+00	NOT IDENT.
I-126	1.209E-01	3.695E-01	6.474E-01	0.000E+00	NOT IDENT.
SB-126	-2.386E-02	2.587E-01	3.770E-01	0.000E+00	NOT IDENT.
SB-127	1.660E+00	5.486E+00	9.596E+00	0.000E+00	NOT IDENT.
I-131	7.050E-02	2.247E-01	3.910E-01	0.000E+00	NOT IDENT.
TE-132	-3.294E+00	4.379E+00	7.445E+00	0.000E+00	NOT IDENT.
BA-133	-3.942E-02	5.179E-02	7.229E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.334E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.606E-02	6.086E-02	1.010E-01	0.000E+00	NOT IDENT.
CS-135	1.739E-01	1.766E-01	2.858E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.204E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.955E-02	1.818E-01	3.246E-01	0.000E+00	NOT IDENT.
BA-137M	-8.205E-03	3.906E-02	6.597E-02	0.000E+00	NOT IDENT.
CS-137	-8.667E-03	4.126E-02	6.970E-02	0.000E+00	NOT IDENT.
CE-139	-1.147E-02	3.403E-02	5.635E-02	0.000E+00	NOT IDENT.
BA-140	-4.801E-02	4.339E-01	7.517E-01	0.000E+00	NOT IDENT.
LA-140	-8.394E-02	1.444E-01	2.164E-01	0.000E+00	FAIL ABUN
CE-141	5.190E-02	7.993E-02	1.391E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.287E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-8.688E-02	2.233E-01	3.745E-01	0.000E+00	NOT IDENT.
PM-144	-1.008E-02	3.731E-02	6.239E-02	0.000E+00	NOT IDENT.
PR-144	-7.404E-01	2.805E+00	4.693E+00	0.000E+00	NOT IDENT.
PM-146	3.378E-02	4.667E-02	8.173E-02	0.000E+00	NOT IDENT.
ND-147	-2.701E-01	9.964E-01	1.710E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.091E+03	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-9.983E-02	1.072E-01	1.736E-01	0.000E+00	FAIL ABUN
GD-153	-1.226E-01	1.031E-01	1.495E-01	0.000E+00	NOT IDENT.
EU-154	3.881E-02	1.532E-01	2.636E-01	0.000E+00	NOT IDENT.
EU-155	3.799E-02	1.158E-01	2.032E-01	0.000E+00	FAIL ABUN
TB-160	-6.715E-02	1.794E-01	2.899E-01	0.000E+00	FAIL ABUN
HO-166M	-3.069E-02	6.394E-02	1.047E-01	0.000E+00	FAIL ABUN
TA-182	-5.680E-02	2.168E-01	3.590E-01	0.000E+00	FAIL ABUN
IR-192	-2.292E-02	3.885E-02	6.476E-02	0.000E+00	FAIL ABUN
HG-203	8.010E-02	5.024E-02	8.428E-02	0.000E+00	NOT IDENT.
BI-207	3.062E-02	6.130E-02	1.092E-01	0.000E+00	FAIL ABUN
PB-210	9.560E-04	3.285E+00	5.879E+00	0.000E+00	NOT IDENT.
PB-211	-5.048E-01	1.020E+00	1.407E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.591E-01	1.327E+00	0.000E+00	FAIL ABUN
RN-219	1.652E-01	4.633E-01	7.997E-01	0.000E+00	FAIL ABUN
RA-223	1.083E-01	7.800E-01	1.190E+00	0.000E+00	FAIL ABUN
AC-227	-8.000E-02	2.418E-01	4.166E-01	0.000E+00	FAIL ABUN
TH-227	-8.000E-02	2.418E-01	4.166E-01	0.000E+00	FAIL ABUN
TH-229	2.917E-02	5.363E-01	9.613E-01	0.000E+00	FAIL ABUN
PA-231	1.068E+00	1.499E+00	2.609E+00	0.000E+00	FAIL ABUN
TH-231	1.083E-01	7.800E-01	1.190E+00	0.000E+00	FAIL ABUN
PA-233	-2.652E-02	6.511E-02	1.098E-01	0.000E+00	FAIL ABUN
PA-234	-2.195E-01	3.362E-01	5.178E-01	0.000E+00	NOT IDENT.
PA-234M	-3.737E-01	5.126E+00	8.797E+00	0.000E+00	NOT IDENT.
NP-239	2.081E-01	4.154E-01	7.295E-01	0.000E+00	FAIL ABUN
AM-241	8.004E-02	1.742E-01	2.852E-01	0.000E+00	NOT IDENT.
CM-247	1.096E-02	4.462E-02	7.402E-02	0.000E+00	FAIL ABUN
CF-249	2.968E-02	4.401E-02	7.757E-02	0.000E+00	NOT IDENT.

CF-251	-7.539E-02	1.267E-01	2.224E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 13:13:08.01

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061470.CNF;1
Sample date       : 25-FEB-2010 12:00:00 Acquisition date : 20-MAR-2010 11:11:45
Sample ID         : G1202061470          Sample quantity  : 1.33660E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 961099                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1490	10.66*	1.075E+00	3.653E+01	3.653E+01	10.56
CD-109	88.03	276	3.70*	5.547E+00	3.774E+00	3.907E+00	30.15
SN-126	64.28	79	9.60	3.221E+00	7.208E-01	7.208E-01	108.62
	86.94	276	8.90	5.547E+00	1.569E+00	1.569E+00	50.45
	87.57	276	37.00*	5.547E+00	3.774E-01	3.774E-01	30.15
TL-208	277.37	89	6.60	4.202E+00	9.019E-01	9.019E-01	73.39
	583.19	543	85.00*	2.364E+00	7.590E-01	7.590E-01	14.22
	860.56	64	12.50	1.693E+00	8.521E-01	8.521E-01	64.99
BI-211	72.87	------	1.23	4.356E+00	------	Line Not Found	------
	351.06	778	12.92*	3.521E+00	4.802E+00	4.802E+00	13.27
PB-212	74.82	627	10.28	4.550E+00	3.768E+00	3.768E+00	20.11
	77.11	749	17.10	4.775E+00	2.575E+00	2.575E+00	14.32
	238.63	1434	43.60*	4.675E+00	1.976E+00	1.976E+00	11.47
	300.09	69	3.30	3.967E+00	1.485E+00	1.485E+00	63.06
BI-214	609.32	557	45.49*	2.279E+00	1.510E+00	1.510E+00	15.70
	1120.29	96	14.92	1.341E+00	1.350E+00	1.350E+00	45.64
	1764.49	109	15.30	9.452E-01	2.111E+00	2.111E+00	21.72
PB-214	74.82	627	5.80	4.550E+00	6.678E+00	6.678E+00	19.30
	77.11	749	9.70	4.775E+00	4.539E+00	4.539E+00	16.53
	242.00	327	7.25	4.636E+00	2.736E+00	2.736E+00	29.91
	295.22	425	18.42	4.014E+00	1.616E+00	1.616E+00	20.90
	351.93	778	35.60*	3.521E+00	1.743E+00	1.743E+00	14.37
RA-224	240.99	327	4.10*	4.636E+00	4.837E+00	4.837E+00	29.34
RA-226	609.32	557	45.49*	2.279E+00	1.510E+00	1.510E+00	15.70
	1120.29	96	14.92	1.341E+00	1.350E+00	1.350E+00	45.64
	1764.49	109	15.30	9.452E-01	2.111E+00	2.111E+00	21.72
AC-228	338.32	298	11.27	3.627E+00	2.044E+00	2.044E+00	46.36
	911.20	361	25.80*	1.610E+00	2.440E+00	2.440E+00	19.31
	968.97	206	15.80	1.525E+00	2.401E+00	2.401E+00	31.70
RA-228	338.32	298	11.27	3.627E+00	2.044E+00	2.044E+00	46.36
	911.20	361	25.80*	1.610E+00	2.440E+00	2.440E+00	19.31
	968.97	206	15.80	1.525E+00	2.401E+00	2.401E+00	31.70

Sample ID : G1202061470 Acquisition date : 20-MAR-2010 11:11:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	627	10.28	4.550E+00	3.768E+00	3.768E+00	17.64
	77.11	749	17.10	4.775E+00	2.575E+00	2.575E+00	14.32
	238.63	1434	43.60*	4.675E+00	1.976E+00	1.976E+00	11.47
	300.09	69	3.30	3.967E+00	1.485E+00	1.485E+00	87.25
TH-232	338.32	298	11.27	3.627E+00	2.044E+00	2.044E+00	21.98
	911.20	361	25.80*	1.610E+00	2.440E+00	2.440E+00	19.31
	968.97	206	15.80	1.525E+00	2.401E+00	2.401E+00	31.70
TH-234	63.29	79	3.70*	3.221E+00	1.870E+00	1.870E+00	109.11
	92.59	301	4.23	5.838E+00	3.423E+00	3.423E+00	35.34
U-235	89.96	163	3.47	5.699E+00	2.310E+00	2.310E+00	48.38
	93.35	301	5.60	5.838E+00	2.585E+00	2.585E+00	35.99
	143.76	------	10.96*	6.165E+00	------	Line Not Found	------
	163.33	------	5.08	5.865E+00	------	Line Not Found	------
	185.72	199	57.20	5.484E+00	1.784E-01	1.784E-01	48.08
	205.31	------	5.01	5.165E+00	------	Line Not Found	------
NP-237	86.48	276	12.40*	5.547E+00	1.126E+00	1.126E+00	36.72
	95.86	------	2.68	5.962E+00	------	Line Not Found	------
U-238	63.29	79	3.70*	3.221E+00	1.870E+00	1.870E+00	109.11
	92.59	301	4.23	5.838E+00	3.423E+00	3.423E+00	28.91
ANH-511	511.00	142	100.00*	2.633E+00	1.513E-01	1.513E-01	51.12

Flag: "*" = Keyline

Sample ID : G1202061470 Acquisition date : 20-MAR-2010 11:11:45

Total number of lines in spectrum 35
Number of unidentified lines 5
Number of lines tentatively identified by NID 30 85.71%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.653E+01	3.653E+01	0.386E+01	10.56	
CD-109	461.40D	1.04	3.774E+00	3.907E+00	1.178E+00	30.15	
SN-126	2.30E+05Y	1.00	3.774E-01	3.774E-01	1.138E-01	30.15	
TL-208	1.41E+10Y	1.00	7.590E-01	7.590E-01	1.079E-01	14.22	
BI-211	7.04E+08Y	1.00	4.802E+00	4.802E+00	0.637E+00	13.27	
PB-212	1.41E+10Y	1.00	1.976E+00	1.976E+00	0.227E+00	11.47	
BI-214	1600.00Y	1.00	1.510E+00	1.510E+00	0.237E+00	15.70	
PB-214	1600.00Y	1.00	1.743E+00	1.743E+00	0.251E+00	14.37	
RA-224	1.41E+10Y	1.00	4.837E+00	4.837E+00	1.419E+00	29.34	
RA-226	1600.00Y	1.00	1.510E+00	1.510E+00	0.237E+00	15.70	
AC-228	1.41E+10Y	1.00	2.440E+00	2.440E+00	0.471E+00	19.31	
RA-228	1.41E+10Y	1.00	2.440E+00	2.440E+00	0.471E+00	19.31	
TH-228	1.41E+10Y	1.00	1.976E+00	1.976E+00	0.227E+00	11.47	
TH-232	1.41E+10Y	1.00	2.440E+00	2.440E+00	0.471E+00	19.31	
TH-234	4.47E+09Y	1.00	1.870E+00	1.870E+00	2.041E+00	109.11	
U-235	7.04E+08Y	1.00	1.784E-01	1.784E-01	0.858E-01	48.08	K
NP-237	2.14E+06Y	1.00	1.126E+00	1.126E+00	0.414E+00	36.72	
U-238	4.47E+09Y	1.00	1.870E+00	1.870E+00	2.041E+00	109.11	
ANH-511	1.00E+09Y	1.00	1.513E-01	1.513E-01	0.773E-01	51.12	
		Total Activity :	7.231E+01	7.244E+01			

Grand Total Activity : 7.231E+01 7.244E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202061470 Acquisition date : 20-MAR-2010 11:11:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.80	197	366	1.10	418.88	414	12	2.73E-02	41.5	5.09E+00	T
0	270.07	131	207	1.35	539.43	535	10	1.82E-02	45.0	4.28E+00	T
0	328.29	50	188	1.08	655.89	650	9	6.93E-03	****	3.71E+00	T
0	409.11	52	151	1.55	817.53	812	11	7.21E-03	97.0	3.14E+00	
0	463.47	97	142	1.86	926.27	920	14	1.34E-02	56.4	2.85E+00	T
0	727.28	109	69	1.51	1453.84	1448	11	1.52E-02	35.1	1.96E+00	T
0	768.10	80	71	1.31	1535.47	1530	11	1.10E-02	46.9	1.87E+00	
0	794.33	71	67	0.81	1587.94	1581	14	9.88E-03	54.1	1.82E+00	
1	964.34	59	46	2.00	1927.87	1921	24	8.25E-03	54.2	1.53E+00	T
0	1238.30	59	100	1.55	2475.61	2468	18	8.15E-03	84.5	1.23E+00	T
0	1630.80	18	14	1.81	3260.19	3254	11	2.52E-03	92.2	9.93E-01	
0	1729.50	33	0	2.36	3457.45	3452	11	4.58E-03	34.8	9.56E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 13:13:12.27

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061470.CNF;1   *
* Acquisition date : 20-MAR-2010 11:11:45  Detector SN#    :                  *
* Detector ID      : GAM12                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.69         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 25-FEB-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202061470           Analyst initials: MXR1             *
* Batch Number     : 961099                Sample Quantity : 1.33660E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 25-FEB-2010 20:55:17.3MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.653E+01	3.855E+00	4.196E-01	3.806E-02	87.039
CD-109	3.907E+00	1.178E+00	1.229E+00	1.157E-01	3.179
SN-126	3.774E-01	1.138E-01	1.193E-01	1.117E-02	3.165
TL-208	7.590E-01	1.079E-01	5.782E-02	5.498E-03	13.128
BI-211	4.802E+00	6.374E-01	3.452E-01	3.076E-02	13.910
PB-212	1.976E+00	2.265E-01	9.774E-02	9.463E-03	20.214
BI-214	1.510E+00	2.370E-01	1.120E-01	1.163E-02	13.474
PB-214	1.743E+00	2.505E-01	1.256E-01	1.315E-02	13.880
RA-224	4.837E+00	1.419E+00	1.048E+00	8.946E-02	4.617
RA-226	1.510E+00	2.370E-01	1.120E-01	1.163E-02	13.474
AC-228	2.440E+00	4.713E-01	2.438E-01	3.129E-02	10.010
RA-228	2.440E+00	4.713E-01	2.438E-01	3.129E-02	10.010
TH-228	1.976E+00	2.265E-01	9.774E-02	9.463E-03	20.214
TH-232	2.440E+00	4.713E-01	2.438E-01	3.129E-02	10.010
TH-234	1.870E+00	2.041E+00	2.256E+00	4.019E-01	0.829
U-235	1.784E-01	8.576E-02	3.550E-01	5.914E-02	0.502
NP-237	1.126E+00	4.136E-01	3.597E-01	8.244E-02	3.131
U-238	1.870E+00	2.041E+00	2.256E+00	4.019E-01	0.829

Sample ID : G1202061470 Acquisition date : 20-MAR-2010 11:11:45

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.513E-01	7.732E-02	4.845E-02	4.239E-03	3.122

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.917E-02		4.206E-01	6.822E-01	6.330E-02	0.131
NA-22	1.471E-02		5.546E-02	9.328E-02	7.954E-03	0.158
NA-24	-4.548E+02		2.518E+03	Half-Life too short		
SC-46	3.950E-02		5.096E-02	8.753E-02	8.967E-03	0.451
V-48	1.305E-02		1.062E-01	1.802E-01	1.772E-02	0.072
CR-51	4.916E-01		4.903E-01	8.447E-01	7.667E-02	0.582
MN-54	2.827E-02		4.421E-02	7.532E-02	7.517E-03	0.375
CO-56	-1.096E-02		4.514E-02	7.158E-02	7.187E-03	-0.153
CO-57	-1.904E-03		2.850E-02	4.569E-02	3.789E-03	-0.042
CO-58	-2.883E-03		4.617E-02	7.480E-02	7.383E-03	-0.039
FE-59	-1.056E-01		1.176E-01	1.796E-01	1.717E-02	-0.588
CO-60	1.448E-02		4.070E-02	6.952E-02	6.085E-03	0.208
ZN-65	-4.124E-02		1.183E-01	1.620E-01	1.413E-02	-0.255
SE-75	1.698E-02		4.938E-02	7.766E-02	6.739E-03	0.219
SR-85	7.766E-02		4.692E-02	7.794E-02	6.827E-03	0.996
Y-88	5.351E-03		4.248E-02	7.186E-02	5.950E-03	0.074
Y-91	-1.781E+01		2.892E+01	4.543E+01	3.732E+00	-0.392
NB-94	2.068E-02		3.629E-02	6.221E-02	5.724E-03	0.332
NB-95	6.259E-02		5.744E-02	9.041E-02	8.677E-03	0.692
NB-95M	-3.498E-02		1.577E-01	2.289E-01	2.240E-02	-0.153
ZR-95	3.813E-02		9.066E-02	1.515E-01	1.570E-02	0.252
MO-99	-6.280E-05		4.993E-05	Half-Life too short		
TC-99M	-1.527E+20		6.533E+19	Half-Life too short		
RU-103	-2.450E-02		4.943E-02	8.050E-02	1.128E-02	-0.304
RH-106	-3.394E-02		3.362E-01	5.542E-01	7.465E-02	-0.061
RU-106	-3.394E-02		3.362E-01	5.542E-01	4.957E-02	-0.061
AG-108M	-7.539E-04		3.051E-02	4.902E-02	4.248E-03	-0.015
AG-110M	-2.608E-02		3.870E-02	6.058E-02	5.558E-03	-0.430
SN-113	-5.189E-02		5.258E-02	7.955E-02	6.659E-03	-0.652
CD-115	5.096E-05		6.849E-05	Half-Life too short		
SN-117M	-1.184E-02		8.931E-02	1.408E-01	1.123E-02	-0.084
TE-123M	8.438E-03		3.257E-02	5.226E-02	4.196E-03	0.161
SB-124	9.716E-03		8.745E-02	1.487E-01	1.336E-02	0.065
SB-125	2.364E-02		1.024E-01	1.674E-01	1.425E-02	0.141
TE-125M	2.358E+00		1.177E+01	1.917E+01	1.974E+00	0.123
I-126	1.209E-01		3.770E-01	6.371E-01	5.705E-02	0.190
SB-126	-2.386E-02		2.640E-01	3.716E-01	3.462E-02	-0.064
SB-127	1.660E+00		5.598E+00	9.448E+00	1.346E+00	0.176
I-131	7.050E-02		2.293E-01	3.807E-01	3.392E-02	0.185
TE-132	-3.294E+00		4.469E+00	7.190E+00	1.263E+00	-0.458
BA-133	-3.942E-02		5.285E-02	7.035E-02	9.024E-03	-0.560
I-133	8.586E-01		1.701E+00	Half-Life too short		

Sample ID : G1202061470 Acquisition date : 20-MAR-2010 11:11:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	8.606E-02		6.211E-02	9.972E-02	9.798E-03	0.863
CS-135	1.739E-01		1.802E-01	2.768E-01	2.764E-02	0.628
I-135	-1.273E+18		1.635E+18	Half-Life too short		
CS-136	8.955E-02		1.855E-01	3.220E-01	3.122E-02	0.278
BA-137M	-8.205E-03		3.986E-02	6.492E-02	5.792E-03	-0.126
CS-137	-8.667E-03		4.211E-02	6.858E-02	6.129E-03	-0.126
CE-139	-1.147E-02		3.473E-02	5.413E-02	4.309E-03	-0.212
BA-140	-4.801E-02		4.427E-01	7.369E-01	2.503E-01	-0.065
LA-140	-8.394E-02		1.473E-01	2.164E-01	1.896E-02	-0.388
CE-141	5.190E-02		8.156E-02	1.333E-01	1.092E-02	0.389
CE-143	3.756E-02		6.564E-03	Half-Life too short		
CE-144	-8.688E-02		2.279E-01	3.584E-01	5.377E-02	-0.242
PM-144	-1.008E-02		3.807E-02	6.144E-02	5.632E-03	-0.164
PR-144	-7.404E-01		2.862E+00	4.622E+00	4.233E-01	-0.160
PM-146	3.378E-02		4.762E-02	7.988E-02	8.379E-03	0.423
ND-147	-2.701E-01		1.017E+00	1.676E+00	2.525E-01	-0.161
PM-149	2.598E-04		5.568E-04	Half-Life too short		
EU-152	-9.983E-02		1.094E-01	1.689E-01	1.524E-02	-0.591
GD-153	-1.226E-01		1.052E-01	1.423E-01	1.245E-02	-0.861
EU-154	3.881E-02		1.563E-01	2.625E-01	2.967E-02	0.148
EU-155	3.799E-02		1.182E-01	1.936E-01	1.657E-02	0.196
TB-160	-6.715E-02		1.831E-01	2.867E-01	2.924E-02	-0.234
HO-166M	-3.069E-02		6.524E-02	1.031E-01	9.550E-03	-0.298
TA-182	-5.680E-02		2.212E-01	3.571E-01	2.960E-02	-0.159
IR-192	-2.292E-02		3.964E-02	6.290E-02	5.445E-03	-0.364
HG-203	8.010E-02		5.126E-02	8.167E-02	7.258E-03	0.981
BI-207	3.062E-02		6.255E-02	1.084E-01	9.986E-03	0.283
PB-210	9.560E-04		3.352E+00	5.528E+00	5.107E-01	0.000
PB-211	-5.048E-01		1.041E+00	1.372E+00	6.631E-01	-0.368
BI-212	2.345E+00	+	8.766E-01	1.308E+00	1.698E-01	1.793
RN-219	1.652E-01		4.728E-01	7.799E-01	1.140E-01	0.212
RA-223	1.083E-01		7.959E-01	1.156E+00	2.003E-01	0.094
AC-227	-8.000E-02		2.467E-01	4.031E-01	4.855E-02	-0.198
TH-227	-8.000E-02		2.468E-01	4.031E-01	5.482E-02	-0.198
TH-229	2.917E-02		5.472E-01	9.257E-01	7.583E-02	0.032
PA-231	1.068E+00		1.529E+00	2.529E+00	3.697E-01	0.422
TH-231	1.083E-01		7.959E-01	1.156E+00	2.003E-01	0.094
PA-233	-2.652E-02		6.644E-02	1.067E-01	9.487E-03	-0.249
PA-234	-2.195E-01		3.430E-01	5.127E-01	9.981E-02	-0.428
PA-234M	-3.737E-01		5.231E+00	8.721E+00	9.527E-01	-0.043
NP-239	2.081E-01		4.238E-01	6.965E-01	5.772E-02	0.299
AM-241	8.004E-02		1.777E-01	2.693E-01	2.121E-02	0.297
CM-247	1.096E-02		4.553E-02	7.219E-02	5.896E-03	0.152
CF-249	2.968E-02		4.491E-02	7.561E-02	6.146E-03	0.393
CF-251	-7.539E-02		1.293E-01	2.138E-01	1.722E-02	-0.353

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202061470          *
* Acquisition date : 20-MAR-2010 11:11:45 Detector SN#    :                *
* Detector ID      : GAM12                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.69     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-FEB-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202061470          Analyst initials: MXR1           *
* Batch Number     : 961099               Sample Quantity : 1.3366E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 25-FEB-2010 20:55:17 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.653E+01	3.778E+00	2.103E-01	1.928E+00
CD-109	3.907E+00	1.154E+00	6.471E-01	5.889E-01
SN-126	3.774E-01	1.115E-01	6.279E-02	5.689E-02
TL-208	7.590E-01	1.058E-01	2.946E-02	5.396E-02
BI-211	4.802E+00	6.247E-01	1.775E-01	3.187E-01
PB-212	1.976E+00	2.220E-01	5.060E-02	1.133E-01
BI-214	1.510E+00	2.323E-01	5.706E-02	1.185E-01
PB-214	1.743E+00	2.455E-01	6.456E-02	1.253E-01
RA-224	4.837E+00	1.391E+00	5.422E-01	7.097E-01
RA-226	1.510E+00	2.323E-01	5.706E-02	1.185E-01
AC-228	2.440E+00	4.619E-01	1.232E-01	2.357E-01
RA-228	2.440E+00	4.619E-01	1.232E-01	2.357E-01
TH-228	1.976E+00	2.220E-01	5.060E-02	1.133E-01
TH-232	2.440E+00	4.619E-01	1.232E-01	2.357E-01
TH-234	1.870E+00	2.000E+00	1.194E+00	1.020E+00
U-235	-2.305E-02	2.196E-01	1.854E-01	1.121E-01
NP-237	1.126E+00	4.053E-01	1.895E-01	2.068E-01
U-238	1.870E+00	2.000E+00	1.194E+00	1.020E+00
ANH-511	1.513E-01	7.578E-02	2.475E-02	3.866E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	8.917E-02	4.122E-01	3.489E-01	2.103E-01	NOT IDENT.
NA-22	1.471E-02	5.435E-02	4.687E-02	2.773E-02	NOT IDENT.
NA-24	-4.548E+08	4.935E+09	0.000E+00	2.518E+09	SHORT HLIF
SC-46	3.950E-02	4.994E-02	4.427E-02	2.548E-02	FAIL ABUN
V-48	1.305E-02	1.041E-01	9.098E-02	5.310E-02	NOT IDENT.
CR-51	4.916E-01	4.805E-01	4.350E-01	2.452E-01	NOT IDENT.
MN-54	2.827E-02	4.333E-02	3.814E-02	2.211E-02	NOT IDENT.
CO-56	-1.096E-02	4.424E-02	3.623E-02	2.257E-02	FAIL ABUN

CO-57	-1.904E-03	2.793E-02	2.393E-02	1.425E-02	NOT IDENT.
CO-58	-2.883E-03	4.525E-02	3.789E-02	2.309E-02	NOT IDENT.
FE-59	-1.056E-01	1.153E-01	9.049E-02	5.880E-02	NOT IDENT.
CO-60	1.448E-02	3.988E-02	3.490E-02	2.035E-02	NOT IDENT.
ZN-65	-4.124E-02	1.159E-01	8.158E-02	5.914E-02	NOT IDENT.
SE-75	1.698E-02	4.839E-02	4.013E-02	2.469E-02	NOT IDENT.
SR-85	7.766E-02	4.598E-02	3.981E-02	2.346E-02	NOT IDENT.
Y-88	5.351E-03	4.163E-02	3.586E-02	2.124E-02	NOT IDENT.
Y-91	-1.781E+01	2.834E+01	2.285E+01	1.446E+01	NOT IDENT.
NB-94	2.068E-02	3.556E-02	3.160E-02	1.814E-02	NOT IDENT.
NB-95	6.259E-02	5.629E-02	4.585E-02	2.872E-02	NOT IDENT.
NB-95M	-3.498E-02	1.545E-01	1.185E-01	7.884E-02	NOT IDENT.
ZR-95	3.813E-02	8.885E-02	7.685E-02	4.533E-02	NOT IDENT.
MO-99	-6.280E+01	9.787E+01	0.000E+00	4.993E+01	SHORT HLIF
TC-99M	-1.527E+26	1.281E+26	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.450E-02	4.844E-02	4.114E-02	2.472E-02	FAIL ABUN
RH-106	-3.394E-02	3.295E-01	2.821E-01	1.681E-01	NOT IDENT.
RU-106	-3.394E-02	3.295E-01	2.821E-01	1.681E-01	NOT IDENT.
AG-108M	-7.539E-04	2.990E-02	2.511E-02	1.526E-02	NOT IDENT.
AG-110M	-2.608E-02	3.793E-02	3.081E-02	1.935E-02	NOT IDENT.
SN-113	-5.189E-02	5.153E-02	4.083E-02	2.629E-02	NOT IDENT.
CD-115	5.096E+01	1.342E+02	0.000E+00	6.849E+01	SHORT HLIF
SN-117M	-1.184E-02	8.753E-02	7.342E-02	4.466E-02	NOT IDENT.
TE-123M	8.438E-03	3.192E-02	2.724E-02	1.628E-02	NOT IDENT.
SB-124	9.716E-03	8.570E-02	7.435E-02	4.372E-02	NOT IDENT.
SB-125	2.364E-02	1.003E-01	8.580E-02	5.119E-02	FAIL ABUN
TE-125M	2.358E+00	1.153E+01	1.005E+01	5.884E+00	NOT IDENT.
I-126	1.209E-01	3.695E-01	3.239E-01	1.885E-01	NOT IDENT.
SB-126	-2.386E-02	2.587E-01	1.886E-01	1.320E-01	NOT IDENT.
SB-127	1.660E+00	5.486E+00	4.801E+00	2.799E+00	NOT IDENT.
I-131	7.050E-02	2.247E-01	1.956E-01	1.146E-01	NOT IDENT.
TE-132	-3.294E+00	4.379E+00	3.725E+00	2.234E+00	NOT IDENT.
BA-133	-3.942E-02	5.179E-02	3.617E-02	2.643E-02	FAIL ABUN
I-133	8.586E+05	3.334E+06	0.000E+00	1.701E+06	SHORT HLIF
CS-134	8.606E-02	6.086E-02	5.054E-02	3.105E-02	NOT IDENT.
CS-135	1.739E-01	1.766E-01	1.430E-01	9.010E-02	NOT IDENT.
I-135	-1.273E+24	3.204E+24	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.955E-02	1.818E-01	1.624E-01	9.277E-02	NOT IDENT.
BA-137M	-8.205E-03	3.906E-02	3.301E-02	1.993E-02	NOT IDENT.
CS-137	-8.667E-03	4.126E-02	3.487E-02	2.105E-02	NOT IDENT.
CE-139	-1.147E-02	3.403E-02	2.819E-02	1.736E-02	NOT IDENT.
BA-140	-4.801E-02	4.339E-01	3.761E-01	2.214E-01	NOT IDENT.
LA-140	-8.394E-02	1.444E-01	1.083E-01	7.366E-02	FAIL ABUN
CE-141	5.190E-02	7.993E-02	6.960E-02	4.078E-02	NOT IDENT.
CE-143	3.756E+04	1.287E+04	0.000E+00	6.564E+03	SHORT HLIF
CE-144	-8.688E-02	2.233E-01	1.874E-01	1.139E-01	NOT IDENT.
PM-144	-1.008E-02	3.731E-02	3.121E-02	1.904E-02	NOT IDENT.
PR-144	-7.404E-01	2.805E+00	2.348E+00	1.431E+00	NOT IDENT.
PM-146	3.378E-02	4.667E-02	4.089E-02	2.381E-02	NOT IDENT.
ND-147	-2.701E-01	9.964E-01	8.555E-01	5.084E-01	FAIL ABUN
PM-149	2.598E+02	1.091E+03	0.000E+00	5.568E+02	SHORT HLIF
EU-152	-9.983E-02	1.072E-01	8.685E-02	5.470E-02	FAIL ABUN
GD-153	-1.226E-01	1.031E-01	7.481E-02	5.262E-02	NOT IDENT.
EU-154	3.881E-02	1.532E-01	1.319E-01	7.814E-02	NOT IDENT.
EU-155	3.799E-02	1.158E-01	1.016E-01	5.908E-02	FAIL ABUN
TB-160	-6.715E-02	1.794E-01	1.450E-01	9.154E-02	FAIL ABUN
HO-166M	-3.069E-02	6.394E-02	5.237E-02	3.262E-02	FAIL ABUN
TA-182	-5.680E-02	2.168E-01	1.796E-01	1.106E-01	FAIL ABUN
IR-192	-2.292E-02	3.885E-02	3.240E-02	1.982E-02	FAIL ABUN
HG-203	8.010E-02	5.024E-02	4.216E-02	2.563E-02	NOT IDENT.
BI-207	3.062E-02	6.130E-02	5.463E-02	3.128E-02	FAIL ABUN
PB-210	9.560E-04	3.285E+00	2.941E+00	1.676E+00	NOT IDENT.
PB-211	-5.048E-01	1.020E+00	7.039E-01	5.205E-01	NOT IDENT.
BI-212	2.345E+00	8.591E-01	6.639E-01	4.383E-01	FAIL ABUN
RN-219	1.652E-01	4.633E-01	4.001E-01	2.364E-01	FAIL ABUN
RA-223	1.083E-01	7.800E-01	5.952E-01	3.979E-01	FAIL ABUN
AC-227	-8.000E-02	2.418E-01	2.084E-01	1.234E-01	FAIL ABUN
TH-227	-8.000E-02	2.418E-01	2.084E-01	1.234E-01	FAIL ABUN
TH-229	2.917E-02	5.363E-01	4.809E-01	2.736E-01	FAIL ABUN
PA-231	1.068E+00	1.499E+00	1.305E+00	7.647E-01	FAIL ABUN
TH-231	1.083E-01	7.800E-01	5.952E-01	3.979E-01	FAIL ABUN
PA-233	-2.652E-02	6.511E-02	5.495E-02	3.322E-02	FAIL ABUN
PA-234	-2.195E-01	3.362E-01	2.590E-01	1.715E-01	NOT IDENT.
PA-234M	-3.737E-01	5.126E+00	4.401E+00	2.615E+00	NOT IDENT.
NP-239	2.081E-01	4.154E-01	3.650E-01	2.119E-01	FAIL ABUN
AM-241	8.004E-02	1.742E-01	1.427E-01	8.887E-02	NOT IDENT.
CM-247	1.096E-02	4.462E-02	3.703E-02	2.277E-02	FAIL ABUN
CF-249	2.968E-02	4.401E-02	3.881E-02	2.245E-02	NOT IDENT.

CF-251	-7.539E-02	1.267E-01	1.112E-01	6.463E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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```

ENERGY	MDA COUNTS
46.54	309.8411
49.72	328.6732
57.36	0.0000
59.54	370.5654
63.29	419.3703
63.29	419.3703
64.28	417.4040
67.75	437.3249
69.67	429.9810
70.83	423.6166
72.81	465.8855
72.87	465.9448
72.87	465.9448
74.82	467.8810
74.82	467.8810
74.82	467.8810
74.97	468.0304
77.11	470.1255
77.11	470.1255
77.11	470.1255
79.69	486.2891
79.80	486.3965
80.12	486.7114
80.19	486.7798
80.57	487.1509
81.00	487.5732
81.07	487.6416
81.07	487.6416
83.79	350.8502
83.79	350.8502
85.43	351.9718
86.48	352.6829
86.55	352.7301
86.79	352.8908
86.94	352.9939
87.57	353.4167
88.03	353.7260
88.47	354.0195
89.96	355.0118
91.11	355.7719
92.59	356.7415
92.59	356.7415
93.35	357.2377
94.67	322.1281
94.87	322.2428
94.87	322.2428
95.86	327.5176
97.43	388.1499
98.44	341.2989
99.53	328.0707
100.11	322.0869
103.18	399.9773
103.37	377.8780
105.31	354.6949
106.12	338.1613
109.28	345.2772
111.00	339.8147
111.76	319.8398
116.30	307.0224
117.23	292.3132
121.12	343.0861
121.78	316.1742
122.06	325.0349
123.07	324.4404
131.20	389.1644
133.52	347.2025
136.00	330.6143

136.47	330.8349
140.51	0.0000
140.51	0.0000
143.76	325.1809
144.24	301.7481
144.24	301.7481
145.44	310.1303
152.43	325.5322
153.25	329.2967
154.21	293.2007
154.21	293.2007
156.02	295.0266
158.56	300.5735
159.00	291.5558
162.66	320.5721
163.33	336.9983
165.86	312.5803
176.60	270.0210
177.52	279.9968
181.07	0.0000
184.41	256.4932
185.72	256.8769
193.51	277.9480
197.04	284.4246
205.31	254.2606
210.85	260.3034
215.65	232.0336
222.11	274.3838
227.38	267.4578
228.16	289.9673
228.18	289.9720
235.69	266.6198
235.96	266.6893
235.96	266.6893
238.63	232.8198
238.63	232.8198
240.99	233.3382
242.00	206.4365
244.70	219.0417
252.40	193.9721
252.80	192.1413
256.23	182.2407
256.23	182.2407
260.90	0.0000
264.66	164.0651
268.22	165.0898
269.46	151.3665
269.46	151.3665
271.23	211.4096
273.65	193.7653
276.40	209.7576
277.37	185.6345
277.60	185.6695
278.00	185.7336
279.20	160.4195
279.54	160.4648
280.46	166.8244
283.69	158.5663
284.31	158.3687
285.41	165.3640
285.90	0.0000
287.50	188.1943
293.27	0.0000
295.22	190.9650
295.96	191.0772
298.57	170.1182
299.98	166.3491
299.98	166.3491
300.09	164.7801
300.09	164.7801
300.13	156.8628
301.36	161.7731
302.85	182.6102
304.50	162.1790
304.50	162.1790
304.85	176.2726
308.46	159.4946
311.90	160.9238

316.51	170.5266
319.41	170.9053
320.08	148.8627
323.87	169.4689
323.87	169.4689
328.76	197.6305
333.37	197.0905
334.37	201.7089
334.37	201.7089
338.28	192.5019
338.28	192.5019
338.32	192.5077
338.32	192.5077
338.32	192.5077
340.48	155.2285
340.55	155.2378
344.28	184.3314
351.06	145.0964
351.93	145.1868
356.01	165.2271
364.49	115.3055
366.42	0.0000
383.85	141.0398
388.16	132.9983
388.63	116.1465
391.69	158.6998
400.66	154.3059
401.81	144.8362
402.40	150.9780
404.85	179.2639
410.95	99.4057
414.70	115.1023
423.72	141.4503
427.09	120.1021
427.87	122.3247
433.94	104.3071
453.88	107.7542
463.37	111.6662
468.07	76.2715
473.00	104.5007
476.78	124.7781
477.60	119.2631
487.02	110.9294
492.35	0.0000
497.08	115.3766
511.00	95.3594
514.00	83.3834
527.90	0.0000
529.87	0.0000
531.02	108.3030
537.26	102.2062
546.56	0.0000
563.25	92.3605
569.33	62.6947
569.50	69.2503
569.70	69.2576
583.19	79.1355
600.60	90.2454
602.73	96.6752
604.72	79.3152
609.32	79.1681
609.32	79.1681
610.33	79.2046
614.28	74.8890
618.01	85.2344
621.93	84.4271
621.93	84.4271
633.25	82.9367
635.95	92.6930
636.99	82.1093
645.85	71.7688
657.76	94.5703
661.66	95.7103
661.66	95.7103
664.57	0.0000
666.33	89.0538
666.50	89.0605
677.62	82.6055

685.70	69.0754
695.00	91.1420
696.49	90.2091
696.51	90.2091
697.00	86.2608
702.65	77.5201
706.68	91.5890
711.68	84.7946
720.70	71.7594
721.93	0.0000
722.78	60.1289
722.91	60.1318
723.31	61.8112
724.19	88.5727
727.33	76.9736
733.00	67.0866
735.93	77.5771
739.50	0.0000
747.24	87.0351
752.31	86.1974
753.82	80.1592
756.73	74.1567
763.94	61.1221
765.81	69.6630
766.42	67.9801
777.92	0.0000
778.90	78.8968
783.70	72.8825
785.37	87.3097
795.86	67.0313
801.95	77.5214
810.29	76.7262
810.76	67.4073
815.77	61.2989
818.51	72.8010
832.01	78.3875
834.85	74.2831
836.80	0.0000
846.77	64.0962
856.80	70.3027
860.56	58.0776
871.09	69.9510
873.19	61.5174
875.33	0.0000
879.36	78.6575
880.51	57.4225
883.24	75.5710
884.68	75.6091
889.28	63.9961
898.04	68.4688
911.20	60.1795
911.20	60.1795
911.20	60.1795
926.50	65.8907
937.49	81.3098
944.13	64.1034
946.00	68.4910
949.00	66.3822
962.29	34.6099
964.08	53.5854
966.15	53.6213
968.97	53.6703
968.97	53.6703
968.97	53.6703
983.53	55.9390
996.26	72.7365
1001.03	60.8585
1004.73	68.3151
1037.84	58.7574
1038.76	0.0000
1048.07	58.9395
1050.41	40.2565
1050.41	40.2565
1063.66	63.9160
1085.87	61.4982
1099.45	75.0429
1112.07	57.2021
1115.54	71.9819

1120.29	55.4252
1120.29	55.4252
1120.55	55.4299
1121.30	55.4417
1131.51	0.0000
1173.23	78.5643
1177.93	76.7241
1189.05	68.1885
1204.77	90.9792
1221.41	69.7693
1231.02	64.1780
1235.36	64.2496
1238.28	68.1072
1260.41	0.0000
1271.85	59.7437
1274.44	64.7646
1274.54	64.7673
1291.59	54.0417
1298.22	0.0000
1312.11	44.2632
1332.49	31.3444
1365.19	25.4812
1368.63	0.0000
1384.29	40.9587
1408.01	18.5361
1457.56	0.0000
1460.82	13.5528
1489.16	13.6406
1505.03	34.7496
1596.21	29.0039
1620.50	12.9570
1678.03	0.0000
1690.97	15.0251
1764.49	12.3884
1764.49	12.3884
1770.23	1.6696
1771.35	5.0098
1791.20	0.0000
1836.06	17.3910

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202061470

Total Uranium Activity	5.5535E+00	ug/g
Total Uranium Counting Unc.	5.9506E+00	ug/g
Total Uranium Tpu	3.0360E-06	ug/g
Total Uranium Mda	3.5542E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 961099                    SAMPLE ID   : G1202061470       *
*   ANALYST       : MXR1                      DETECTOR    : GAM12             *
*   SAMPLE DATE   : 25-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 20-MAR-2010 11:11:45.98    SAMPLE ALQT:  133.660 GRAM      *
*                                                                             *
*******************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.185E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.665E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 4.182E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.033E+00
```

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 12:13:11.93

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061471.CNF;1
Sample date       : 6-MAR-2010 00:00:00. Acquisition date : 20-MAR-2010 11:12:22
Sample ID         : G1202061471          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:17.31  0.5%
Energy tolerance  : 1.50000 keV          Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 961099               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.65	4173	1029	1.11	119.30	113	11	1.16E+00	2.1	
2	2	75.02*	204	398	1.24	149.98	146	14	5.65E-02	18.0	2.25E+00
3	2	77.31	304	402	1.25	154.57	146	14	8.43E-02	12.6	
4	0	88.19*	1679	576	1.13	176.28	171	12	4.66E-01	3.8	
5	0	93.02*	78	299	1.05	185.93	183	8	2.16E-02	41.9	
6	0	122.22	189	294	1.10	244.25	240	8	5.26E-02	17.3	
7	0	185.79*	103	306	1.96	371.20	365	12	2.87E-02	35.9	
8	0	238.63*	461	335	1.05	476.74	472	9	1.28E-01	8.5	
9	0	294.72	120	267	1.58	588.79	584	11	3.34E-02	27.7	
10	0	338.03	107	195	1.03	675.31	671	9	2.97E-02	25.4	
11	0	352.13	257	220	1.20	703.50	698	12	7.15E-02	13.2	
12	0	583.75*	135	160	1.43	1166.37	1160	13	3.76E-02	21.4	
13	0	609.61*	216	139	1.30	1218.05	1211	15	6.01E-02	13.7	
14	0	662.08	2642	130	1.53	1322.95	1317	15	7.34E-01	2.2	
15	0	727.49	62	58	1.39	1453.72	1449	10	1.72E-02	26.2	
16	0	911.50*	110	140	2.11	1821.66	1817	13	3.06E-02	24.0	
17	0	970.00*	107	79	1.86	1938.68	1933	14	2.97E-02	20.4	
18	0	1174.06	1963	75	1.74	2346.93	2338	19	5.45E-01	2.5	
19	0	1333.36	1693	20	1.74	2665.74	2658	16	4.70E-01	2.5	
20	0	1378.13	15	12	1.06	2755.36	2749	10	4.05E-03	52.4	
21	0	1461.55	32	25	1.23	2922.37	2915	14	8.89E-03	37.3	
22	0	1765.58	28	8	1.91	3531.25	3525	11	7.69E-03	27.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 20-MAR-2010 12:13:15

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061471.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 6-MAR-2010 00:00:00 Acquisition date : 20-MAR-2010 11:12:22
Sample ID : G1202061471 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:17.31 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	1.158E+00	8.702E-01	6.906E-01	6.023E-02	1.677
CO-57	+	122.06	*	1.504E-01	5.354E-02	5.633E-02	4.702E-03	2.670
		136.47		1.422E-01	3.013E-01	4.925E-01	4.454E-02	0.289
CO-60	+	1173.23		6.377E+00	6.036E-01	1.064E-01	8.555E-03	59.934
	+	1332.49	*	6.106E+00	5.958E-01	7.442E-02	6.234E-03	82.038
CD-109	+	88.03	*	3.207E+01	3.884E+00	1.779E+00	1.682E-01	18.028
SN-126		64.28		3.962E-01	5.796E-01	9.385E-01	1.359E-01	0.422
	+	86.94		1.305E+01	5.509E+00	7.287E-01	3.025E-01	17.904
	+	87.57	*	3.138E+00	3.800E-01	1.746E-01	1.642E-02	17.977
BA-137M	+	661.66	*	5.837E+00	6.381E-01	8.649E-02	8.680E-03	67.486
CS-137	+	661.66	*	6.166E+00	6.749E-01	9.137E-02	9.182E-03	67.486
TL-208		277.37		7.615E-01	6.242E-01	1.086E+00	1.463E-01	0.701
	+	583.19	*	2.851E-01	1.253E-01	1.003E-01	1.030E-02	2.843
		860.56		5.995E-01	5.635E-01	9.965E-01	1.056E-01	0.602
BI-211		72.87		1.570E+00	4.154E+00	6.179E+00	4.879E-01	0.254
	+	351.06	*	2.426E+00	6.804E-01	5.464E-01	5.235E-02	4.440
PB-212	+	74.82		1.578E+00	6.007E-01	6.908E-01	8.728E-02	2.284
	+	77.11		1.367E+00	3.636E-01	4.021E-01	3.325E-02	3.401
	+	238.63	*	9.728E-01	1.957E-01	1.724E-01	1.841E-02	5.644
		300.09		-4.150E-02	1.423E+00	2.077E+00	2.396E-01	-0.020
BI-214	+	609.32	*	8.831E-01	2.617E-01	1.889E-01	2.110E-02	4.676
		1120.29		7.009E-01	6.141E-01	1.069E+00	1.162E-01	0.655
	+	1764.49		7.946E-01	4.447E-01	3.759E-01	3.088E-02	2.114
PB-214	+	74.82		2.796E+00	1.053E+00	1.224E+00	1.385E-01	2.284
	+	77.11		2.411E+00	6.711E-01	7.088E-01	8.279E-02	3.401
		242.00		1.444E+00	6.730E-01	1.083E+00	1.221E-01	1.334
	+	295.22		6.980E-01	3.958E-01	3.557E-01	4.202E-02	1.963
	+	351.93	*	8.804E-01	2.517E-01	1.901E-01	2.100E-02	4.631
RA-226	+	609.32	*	8.831E-01	2.617E-01	1.889E-01	2.110E-02	4.676
		1120.29		7.009E-01	6.141E-01	1.069E+00	1.162E-01	0.655
	+	1764.49		7.946E-01	4.447E-01	3.759E-01	3.088E-02	2.114
AC-228	+	338.32		1.122E+00	7.380E-01	6.430E-01	2.693E-01	1.745
	+	911.20	*	1.111E+00	5.503E-01	5.055E-01	6.354E-02	2.197
	+	968.97		1.852E+00	8.848E-01	9.544E-01	2.361E-01	1.941

Sample ID : G1202061471 Acquisition date : 20-MAR-2010 11:12:22

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.122E+00	7.380E-01	6.430E-01	2.693E-01	1.745
	+	911.20	*	1.111E+00	5.503E-01	5.055E-01	6.354E-02	2.197
	+	968.97		1.852E+00	8.848E-01	9.544E-01	2.361E-01	1.941
TH-228	+	74.82		1.578E+00	5.811E-01	6.908E-01	5.627E-02	2.284
	+	77.11		1.367E+00	3.636E-01	4.021E-01	3.325E-02	3.401
	+	238.63	*	9.728E-01	1.957E-01	1.724E-01	1.841E-02	5.644
		300.09		-4.150E-02	1.424E+00	2.077E+00	1.275E+00	-0.020
TH-232	+	338.32		1.122E+00	5.788E-01	6.430E-01	6.024E-02	1.745
	+	911.20	*	1.111E+00	5.503E-01	5.055E-01	6.354E-02	2.197
	+	968.97		1.852E+00	8.848E-01	9.544E-01	2.361E-01	1.941
AM-241	+	59.54	*	1.377E+01	1.229E+00	3.710E-01	2.903E-02	37.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.600E-01	6.021E-01	9.495E-01	9.227E-02	-0.274
NA-22		1274.54	*	-3.988E-02	4.695E-02	6.427E-02	5.324E-03	-0.621
NA-24		1368.63	*	-2.668E-01	4.695E-02	Half-Life too short		
SC-46		889.28	*	4.896E-02	7.913E-02	1.361E-01	1.357E-02	0.360
		1120.55		1.002E-01	1.027E-01	1.777E-01	1.520E-02	0.564
V-48		944.13		1.992E+00	1.927E+00	3.366E+00	3.285E-01	0.592
		983.53	*	-3.443E-02	1.353E-01	2.176E-01	2.080E-02	-0.158
		1312.11		-8.780E-02	9.670E-02	1.317E-01	1.099E-02	-0.667
CR-51		320.08	*	2.410E-02	6.022E-01	1.000E+00	1.002E-01	0.024
MN-54		834.85	*	-2.221E-02	6.895E-02	1.117E-01	1.129E-02	-0.199
CO-56		846.77	*	4.591E-02	7.435E-02	1.284E-01	1.294E-02	0.358
		1037.84		9.858E-02	5.694E-01	9.445E-01	9.105E-02	0.104
		1238.28		5.989E-02	8.355E-02	1.483E-01	1.255E-02	0.404
		1771.35		-3.631E-01	3.464E-01	4.431E-01	3.634E-02	-0.819
CO-58		810.76	*	-2.889E-02	6.642E-02	1.065E-01	1.081E-02	-0.271
FE-59		1099.45	*	-8.838E-02	1.659E-01	2.573E-01	2.426E-02	-0.343
		1291.59		2.493E-02	1.145E-01	1.919E-01	1.825E-02	0.130
ZN-65		1115.54	*	-1.010E-01	1.788E-01	2.781E-01	2.393E-02	-0.363
SE-75	+	121.12		7.844E-01	2.845E-01	3.998E-01	4.348E-02	1.962
		136.00		6.292E-02	5.694E-02	9.553E-02	8.073E-03	0.659
		264.66	*	1.864E-02	6.935E-02	1.174E-01	1.163E-02	0.159
		279.54		7.768E-02	1.743E-01	2.966E-01	3.038E-02	0.262
		400.66		-7.337E-04	4.477E-01	7.334E-01	8.029E-02	-0.001
SR-85		514.00	*	-1.237E-01	7.489E-02	1.075E-01	1.004E-02	-1.151
Y-88		898.04		5.550E-02	8.718E-02	1.498E-01	1.494E-02	0.371
		1836.06	*	4.803E-03	4.346E-02	7.317E-02	5.904E-03	0.066
Y-91		1204.77	*	8.553E+00	2.346E+01	3.980E+01	3.232E+00	0.215
NB-94		702.65	*	-6.958E-02	5.502E-02	8.285E-02	8.382E-03	-0.840
		871.09		4.085E-02	7.371E-02	1.260E-01	1.262E-02	0.324
NB-95		765.81	*	-7.260E-02	6.997E-02	1.071E-01	1.088E-02	-0.678
NB-95M		235.69	*	-2.382E-02	2.002E-01	2.945E-01	3.170E-02	-0.081
ZR-95		724.19		7.597E-03	1.512E-01	2.214E-01	2.384E-02	0.034
		756.73	*	3.718E-02	1.271E-01	2.164E-01	2.367E-02	0.172

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99		140.51		5.246E+00	2.586E+01	4.152E+01	9.830E+00	0.126
		181.07		-1.813E+00	2.316E+01	3.230E+01	6.117E+00	-0.056
		366.42		-3.972E+00	1.385E+02	2.276E+02	2.023E+01	-0.017
		739.50	*	-3.493E+00	1.618E+01	2.656E+01	4.421E+00	-0.132
		777.92		-6.408E+01	5.260E+01	7.860E+01	7.986E+00	-0.815
TC-99M		140.51	*	1.678E+09	5.260E+01	Half-Life too short		
RU-103		497.08	*	4.960E-02	7.128E-02	1.201E-01	1.723E-02	0.413
	+	610.33		9.007E+00	2.910E+00	3.287E+00	5.597E-01	2.740
RH-106		621.93	*	-2.140E-01	5.850E-01	9.070E-01	1.281E-01	-0.236
		1050.41		1.450E+00	5.213E+00	8.693E+00	7.935E-01	0.167
RU-106		621.93	*	-2.140E-01	5.846E-01	9.070E-01	8.977E-02	-0.236
		1050.41		1.450E+00	5.213E+00	8.693E+00	7.935E-01	0.167
AG-108M		433.94	*	7.854E-03	5.857E-02	9.624E-02	8.674E-03	0.082
		614.28		3.831E-02	6.874E-02	1.012E-01	1.024E-02	0.379
		722.91		-2.196E-02	6.382E-02	8.916E-02	9.254E-03	-0.246
AG-110M		657.76	*	-4.288E-02	6.805E-02	9.329E-02	9.558E-03	-0.460
		677.62		2.474E-01	4.903E-01	8.532E-01	8.775E-02	0.290
		706.68		4.559E-01	3.469E-01	6.286E-01	6.496E-02	0.725
		763.94		-1.696E-01	2.689E-01	4.268E-01	4.423E-02	-0.397
		884.68		2.096E-03	1.000E-01	1.656E-01	1.693E-02	0.013
		937.49		1.305E-01	2.460E-01	4.184E-01	4.210E-02	0.312
		1384.29		-1.455E-01	1.958E-01	2.564E-01	2.222E-02	-0.567
		1505.03		-2.184E-01	2.604E-01	3.437E-01	2.914E-02	-0.635
SN-113		391.69	*	6.344E-03	7.784E-02	1.283E-01	1.106E-02	0.049
CD-115		260.90		1.069E+02	1.783E+02	3.063E+02	3.013E+01	0.349
		492.35		-4.190E+01	5.686E+01	8.728E+01	8.022E+00	-0.480
		527.90	*	6.502E+00	1.655E+01	2.742E+01	2.584E+00	0.237
SN-117M		156.02		-1.938E+00	3.054E+00	4.687E+00	4.030E-01	-0.413
		158.56	*	2.481E-03	7.558E-02	1.204E-01	1.039E-02	0.021
TE-123M		159.00	*	1.691E-03	4.029E-02	6.419E-02	5.577E-03	0.026
SB-124		602.73		-5.296E-02	7.880E-02	1.026E-01	1.008E-02	-0.516
		645.85		4.514E-01	8.554E-01	1.488E+00	1.550E-01	0.303
		722.78		-1.580E-01	6.405E-01	9.059E-01	9.341E-02	-0.174
		1690.97	*	-7.412E-02	9.086E-02	1.184E-01	1.031E-02	-0.626
SB-125		427.87	*	-1.492E-01	1.733E-01	2.678E-01	2.369E-02	-0.557
		463.37		7.715E-01	5.656E-01	9.761E-01	9.373E-02	0.790
		600.60		1.878E-01	3.062E-01	5.113E-01	5.305E-02	0.367
		635.95		8.397E-02	4.494E-01	7.673E-01	8.105E-02	0.109
TE-125M		109.28	*	5.363E+00	1.276E+01	2.098E+01	2.177E+00	0.256
I-126		388.63		1.611E-01	2.836E-01	4.796E-01	4.040E-02	0.336
		666.33	*	3.420E-01	3.506E-01	5.657E-01	5.684E-02	0.605
		753.82		1.902E-01	2.979E+00	4.997E+00	5.078E-01	0.038
SB-126		414.70		8.365E-03	1.391E-01	2.283E-01	1.956E-02	0.037
		666.50		1.080E-01	1.193E-01	1.915E-01	1.924E-02	0.564
		695.00		-1.724E-01	1.206E-01	1.781E-01	1.800E-02	-0.968
		697.00		-2.344E-01	4.132E-01	6.631E-01	6.703E-02	-0.353
		720.70	*	9.943E-03	2.286E-01	3.630E-01	3.681E-02	0.027
		856.80		-6.087E-01	8.832E-01	1.387E+00	1.395E-01	-0.439
SB-127		252.40		1.486E+00	5.906E+00	9.962E+00	4.157E+00	0.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		473.00		1.210E+00	2.892E+00	4.801E+00	6.190E-01	0.252
		685.70	*	-2.506E-01	1.887E+00	3.137E+00	3.873E-01	-0.080
		783.70		5.279E-01	5.219E+00	8.757E+00	1.165E+00	0.060
I-131		80.19		1.166E+00	6.142E+00	9.024E+00	7.784E-01	0.129
		284.31		-8.822E-01	2.158E+00	3.517E+00	3.626E-01	-0.251
		364.49	*	-7.026E-02	1.818E-01	2.923E-01	2.739E-02	-0.240
		636.99		6.009E-01	2.428E+00	4.163E+00	4.322E-01	0.144
TE-132		49.72		1.829E+01	2.214E+01	3.728E+01	3.808E+00	0.491
		111.76		7.318E+00	3.886E+01	6.319E+01	6.751E+00	0.116
		116.30		8.397E+00	3.395E+01	5.529E+01	5.879E+00	0.152
		228.16	*	2.995E-01	9.734E-01	1.658E+00	2.688E-01	0.181
BA-133		81.00		-8.384E-02	1.375E-01	1.931E-01	3.001E-02	-0.434
		276.40		6.312E-01	5.781E-01	1.000E+00	1.496E-01	0.631
		302.85		-1.736E-01	2.248E-01	3.563E-01	4.942E-02	-0.487
		356.01	*	-1.421E-02	7.786E-02	1.109E-01	1.472E-02	-0.128
		383.85		-2.215E-01	5.224E-01	8.360E-01	1.034E-01	-0.265
I-133		529.87	*	4.981E-04	5.224E-01	Half-Life too short		
		875.33		-6.144E-02	5.224E-01	Half-Life too short		
		1298.22		9.999E-02	5.224E-01	Half-Life too short		
CS-134		563.25		-2.881E-01	6.221E-01	9.634E-01	9.347E-02	-0.299
		569.33		-2.430E-01	3.227E-01	4.849E-01	4.735E-02	-0.501
		604.72		2.155E-02	5.981E-02	8.672E-02	8.538E-03	0.249
		795.86	*	1.997E-02	8.540E-02	1.443E-01	1.472E-02	0.138
		801.95		-9.299E-02	7.157E-01	1.179E+00	1.201E-01	-0.079
		1365.19		-4.447E-01	1.260E+00	1.976E+00	1.743E-01	-0.225
CS-135		268.22	*	-2.272E-01	2.492E-01	3.961E-01	4.390E-02	-0.573
I-135		546.56		-8.222E+07	2.492E-01	Half-Life too short		
		836.80		2.492E+09	2.492E-01	Half-Life too short		
		1038.76		5.848E+09	2.492E-01	Half-Life too short		
		1131.51		9.767E+07	2.492E-01	Half-Life too short		
		1260.41	*	-1.173E+09	2.492E-01	Half-Life too short		
		1457.56		3.055E+09	2.492E-01	Half-Life too short		
		1678.03		2.046E+09	2.492E-01	Half-Life too short		
		1791.20		3.207E+09	2.492E-01	Half-Life too short		
CS-136		153.25		-2.318E-03	1.153E+00	1.836E+00	1.876E-01	-0.001
		176.60		2.388E-01	6.813E-01	1.098E+00	1.070E-01	0.217
		273.65		-1.170E+00	8.161E-01	1.255E+00	1.326E-01	-0.933
		340.55		1.631E-01	2.644E-01	3.996E-01	3.851E-02	0.408
		818.51		-1.197E-01	1.371E-01	2.121E-01	2.149E-02	-0.564
		1048.07	*	-4.048E-02	2.128E-01	3.426E-01	3.250E-02	-0.118
		1235.36		-2.080E-01	5.325E-01	8.089E-01	9.266E-02	-0.257
CE-139		165.86	*	8.870E-03	4.373E-02	7.011E-02	6.121E-03	0.127
BA-140		162.66		3.206E-01	1.139E+00	1.835E+00	1.699E-01	0.175
		304.85		3.793E-01	2.035E+00	3.409E+00	1.010E+00	0.111
		423.72		4.007E+00	3.622E+00	5.885E+00	1.936E+00	0.681
		537.26	*	-2.858E-01	4.735E-01	7.156E-01	2.443E-01	-0.399
LA-140		328.76		7.628E-02	4.491E-01	7.501E-01	7.465E-02	0.102
		487.02		1.496E-01	2.484E-01	4.172E-01	4.029E-02	0.359
		815.77		7.540E-01	5.695E-01	1.027E+00	1.130E-01	0.734

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1596.21	*	-1.583E-02	1.035E-01	1.664E-01	1.405E-02	-0.095
CE-141		145.44	*	-1.501E-02	8.637E-02	1.366E-01	1.179E-02	-0.110
CE-143		57.36		3.384E-03	8.637E-02	Half-Life too short		
	+	293.27	*	4.423E-04	8.637E-02	Half-Life too short		
		664.57		4.955E-02	8.637E-02	Half-Life too short		
		721.93		-9.649E-04	8.637E-02	Half-Life too short		
CE-144		80.12		6.112E-01	3.510E+00	5.154E+00	4.415E-01	0.119
		133.52	*	-2.676E-01	2.917E-01	4.415E-01	6.688E-02	-0.606
PM-144		476.78		-2.173E-02	1.223E-01	1.963E-01	1.921E-02	-0.111
		618.01		-2.463E-02	5.516E-02	8.483E-02	8.562E-03	-0.290
		696.49	*	-4.547E-02	5.503E-02	8.634E-02	8.729E-03	-0.527
PR-144		696.51	*	-3.376E+00	4.119E+00	6.466E+00	6.536E-01	-0.522
		1489.16		-1.815E+00	1.374E+01	2.231E+01	1.892E+00	-0.081
PM-146		453.88	*	8.247E-02	8.528E-02	1.453E-01	1.573E-02	0.567
		633.25		1.420E+00	2.528E+00	4.118E+00	1.586E+00	0.345
		735.93		-1.511E-02	2.223E-01	3.696E-01	1.055E-01	-0.041
		747.24		-1.835E-02	1.596E-01	2.643E-01	4.108E-02	-0.069
ND-147		91.11		4.430E-01	4.021E-01	5.022E-01	4.970E-02	0.882
		319.41		3.074E+00	5.319E+00	9.068E+00	8.725E-01	0.339
		531.02	*	2.916E-01	9.629E-01	1.587E+00	2.450E-01	0.184
PM-149		285.90	*	1.120E+02	1.144E+02	1.979E+02	3.225E+01	0.566
EU-152	+	121.78		4.336E-01	1.558E-01	2.224E-01	2.149E-02	1.949
		244.70		-1.294E+00	5.503E-01	8.021E-01	7.781E-02	-1.613
		344.28	*	-1.901E-02	1.640E-01	2.692E-01	2.625E-02	-0.071
		778.90		-1.766E-01	4.466E-01	7.213E-01	7.329E-02	-0.245
		964.08		6.148E-01	6.342E-01	9.811E-01	9.478E-02	0.627
		1085.87		8.828E-02	7.541E-01	1.241E+00	1.099E-01	0.071
		1112.07		-1.452E-01	6.168E-01	9.855E-01	8.504E-02	-0.147
		1408.01		7.071E-02	2.089E-01	3.680E-01	3.109E-02	0.192
GD-153		69.67		-2.140E-01	2.012E+00	3.281E+00	2.510E-01	-0.065
		97.43	*	3.228E-03	1.145E-01	1.659E-01	1.472E-02	0.019
		103.18		-8.158E-03	1.410E-01	2.272E-01	1.966E-02	-0.036
EU-154	+	123.07		3.066E-01	1.115E-01	1.548E-01	1.725E-02	1.980
		723.31		-1.879E-01	2.956E-01	3.976E-01	4.332E-02	-0.473
		873.19		2.435E-01	6.032E-01	1.021E+00	1.322E-01	0.238
		996.26		-1.921E-01	7.208E-01	1.157E+00	2.072E-01	-0.166
		1004.73		1.959E-02	4.507E-01	7.410E-01	9.078E-02	0.026
		1274.44	*	-1.014E-01	1.316E-01	1.827E-01	2.031E-02	-0.555
EU-155		86.55		1.582E+00	2.454E-01	3.585E-01	3.357E-02	4.413
		105.31	*	1.152E-01	1.368E-01	2.293E-01	1.993E-02	0.502
TB-160	+	86.79		1.003E+01	1.215E+00	1.057E+00	9.842E-02	9.490
		197.04		1.107E-01	8.046E-01	1.370E+00	1.254E-01	0.081
		215.65		-1.331E-01	1.093E+00	1.834E+00	1.722E-01	-0.073
		298.57		3.916E-02	2.020E-01	2.993E-01	2.941E-02	0.131
		879.36	*	-6.478E-02	2.805E-01	4.560E-01	4.559E-02	-0.142
		962.29		-1.317E+00	1.153E+00	1.685E+00	1.630E-01	-0.781
		966.15		4.052E-01	4.431E-01	6.823E-01	6.584E-02	0.594
		1177.93		2.186E+00	7.711E-01	1.372E+00	1.105E-01	1.594
		1271.85		-3.841E-01	7.602E-01	1.120E+00	9.261E-02	-0.343

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HO-166M		80.57		-7.211E-02	3.875E-01	5.586E-01	4.812E-02	-0.129
	+	184.41		1.123E-01	8.117E-02	8.223E-02	7.386E-03	1.366
		280.46		-8.873E-02	1.369E-01	2.205E-01	2.194E-02	-0.402
		410.95		-1.045E-01	4.501E-01	7.265E-01	6.200E-02	-0.144
		711.68	*	-4.240E-02	9.976E-02	1.618E-01	1.639E-02	-0.262
		752.31		-2.023E-01	4.695E-01	7.581E-01	7.703E-02	-0.267
		810.29		-7.026E-02	1.055E-01	1.660E-01	1.683E-02	-0.423
TA-182		67.75		-5.942E-02	1.289E-01	2.074E-01	1.559E-02	-0.286
		100.11		6.377E-02	2.163E-01	3.551E-01	3.109E-02	0.180
		152.43		-2.131E-01	4.992E-01	7.773E-01	6.648E-02	-0.274
		222.11		2.448E-01	5.378E-01	9.229E-01	8.736E-02	0.265
		1121.30		2.735E-01	2.862E-01	4.945E-01	4.226E-02	0.553
		1189.05		1.422E-01	3.733E-01	6.325E-01	5.111E-02	0.225
		1221.41	*	1.409E-01	1.957E-01	3.479E-01	2.839E-02	0.405
		1231.02		-4.007E-02	4.522E-01	7.207E-01	5.896E-02	-0.056
IR-192	+	295.96		5.129E-01	2.889E-01	3.497E-01	3.463E-02	1.467
		308.46		-6.119E-02	1.538E-01	2.497E-01	2.442E-02	-0.245
		316.51	*	-2.822E-02	5.616E-02	9.047E-02	8.750E-03	-0.312
		468.07		-2.809E-02	1.403E-01	2.254E-01	2.168E-02	-0.125
HG-203		70.83		9.942E-01	1.713E+00	2.569E+00	4.009E-01	0.387
		72.87		3.870E-01	1.025E+00	1.523E+00	2.307E-01	0.254
		279.20	*	5.997E-02	6.102E-02	1.060E-01	1.076E-02	0.566
BI-207		72.81		6.672E-02	2.384E-01	3.530E-01	2.786E-02	0.189
	+	74.97		4.547E-01	1.674E-01	2.551E-01	2.060E-02	1.782
		569.70		-3.734E-02	4.926E-02	7.390E-02	7.140E-03	-0.505
		1063.66	*	4.117E-02	1.009E-01	1.700E-01	1.535E-02	0.242
		1770.23		1.239E-01	5.084E-01	7.906E-01	6.486E-02	0.157
PB-210		46.54	*	-4.060E+00	4.008E+00	6.428E+00	5.906E-01	-0.632
PB-211		404.85	*	6.223E-01	1.330E+00	2.178E+00	1.054E+00	0.286
		427.09		-1.654E+00	2.919E+00	4.439E+00	2.054E+00	-0.373
		832.01		3.597E-02	1.841E+00	3.060E+00	1.595E+00	0.012
BI-212	+	727.33	*	1.997E+00	1.079E+00	1.609E+00	2.182E-01	1.241
		785.37		-4.136E+00	5.449E+00	8.532E+00	8.666E-01	-0.485
		1620.50		-1.363E+00	2.863E+00	4.290E+00	3.612E-01	-0.318
RN-219		271.23		6.829E-01	3.875E-01	6.846E-01	7.778E-02	0.997
		401.81	*	4.036E-02	7.313E-01	1.202E+00	1.776E-01	0.034
RA-223		81.07		-1.941E-01	3.105E-01	4.371E-01	3.788E-02	-0.444
		83.79		5.510E-02	1.875E-01	2.766E-01	2.479E-02	0.199
		94.87		6.634E-01	5.845E-01	9.001E-01	8.097E-02	0.737
		144.24		-4.434E-01	9.388E-01	1.467E+00	1.391E-01	-0.302
		154.21		2.247E-01	5.317E-01	8.644E-01	8.129E-02	0.260
		269.46		3.581E-01	2.949E-01	5.160E-01	5.184E-02	0.694
		323.87	*	-8.963E-01	1.063E+00	1.661E+00	2.960E-01	-0.540
	+	338.28		4.452E+00	2.328E+00	3.250E+00	4.101E-01	1.370
RA-224		240.99	*	4.190E+00	1.316E+00	2.158E+00	2.086E-01	1.942
AC-227		79.69		7.114E-01	1.738E+00	2.576E+00	4.428E-01	0.276
		235.96		-2.463E-02	2.486E-01	3.661E-01	4.095E-02	-0.067
		256.23	*	1.334E-02	3.960E-01	6.643E-01	8.584E-02	0.020
		299.98		4.405E-01	1.531E+00	2.282E+00	3.091E-01	0.193

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		304.50		-3.239E-01	2.540E+00	4.190E+00	7.190E-01	-0.077
		334.37		7.338E-01	3.158E+00	4.663E+00	7.483E-01	0.157
TH-227		79.80		2.896E-01	2.309E+00	3.382E+00	7.353E-01	0.086
		235.96		-2.463E-02	2.486E-01	3.661E-01	3.898E-02	-0.067
		256.23	*	1.334E-02	3.960E-01	6.643E-01	9.554E-02	0.020
		299.98		4.405E-01	1.531E+00	2.282E+00	3.091E-01	0.193
		304.50		-3.239E-01	2.540E+00	4.190E+00	7.190E-01	-0.077
		334.37		7.338E-01	3.158E+00	4.663E+00	7.483E-01	0.157
TH-229		85.43		1.084E-01	3.194E-01	4.716E-01	4.315E-02	0.230
	+	88.47		4.838E+00	5.859E-01	5.867E-01	5.527E-02	8.246
		193.51	*	-7.694E-01	7.593E-01	1.225E+00	1.115E-01	-0.628
		210.85		-2.077E-01	1.241E+00	2.080E+00	1.940E-01	-0.100
PA-231		283.69	*	-1.020E+00	2.231E+00	3.620E+00	5.573E-01	-0.282
		301.36		1.343E-02	9.153E-01	1.472E+00	1.917E-01	0.009
TH-231		81.07		-1.941E-01	3.105E-01	4.371E-01	3.788E-02	-0.444
		83.79		5.510E-02	1.875E-01	2.766E-01	2.479E-02	0.199
		94.87		6.634E-01	5.845E-01	9.001E-01	8.097E-02	0.737
		144.24		-4.434E-01	9.388E-01	1.467E+00	1.391E-01	-0.302
		154.21		2.247E-01	5.317E-01	8.644E-01	8.129E-02	0.260
		269.46		3.581E-01	2.949E-01	5.160E-01	5.184E-02	0.694
		323.87	*	-8.963E-01	1.063E+00	1.661E+00	2.960E-01	-0.540
	+	338.28		4.452E+00	2.328E+00	3.250E+00	4.101E-01	1.370
PA-233		300.13		-1.679E-02	7.088E-01	1.034E+00	1.609E-01	-0.016
		311.90	*	8.059E-02	1.024E-01	1.765E-01	1.752E-02	0.456
		340.48		9.184E-01	1.197E+00	1.798E+00	4.376E-01	0.511
PA-234		94.67		2.065E-01	2.247E-01	3.404E-01	4.314E-02	0.607
		98.44		-1.395E-02	1.132E-01	1.816E-01	1.013E-01	-0.077
		111.00		1.549E-01	2.466E-01	4.084E-01	4.891E-02	0.379
		131.20		-1.469E-01	1.543E-01	2.351E-01	1.965E-02	-0.625
		569.50		-3.515E-01	4.439E-01	6.646E-01	6.420E-02	-0.529
		733.00		5.228E-01	6.548E-01	1.023E+00	2.335E-01	0.511
		880.51		-1.670E-01	5.637E-01	9.117E-01	9.113E-02	-0.183
		883.24		-3.159E-02	5.812E-01	9.564E-01	6.447E-01	-0.033
		926.50		-1.474E-01	3.686E-01	5.869E-01	1.509E-01	-0.251
		946.00	*	6.973E-01	6.939E-01	1.193E+00	2.303E-01	0.585
		949.00		-5.567E-02	9.978E-01	1.636E+00	1.592E-01	-0.034
PA-234M		766.42		1.469E-01	1.839E+01	3.069E+01	1.566E+01	0.005
		1001.03	*	-5.084E-01	9.663E+00	1.590E+01	1.701E+00	-0.032
TH-234		63.29	*	-3.045E-01	1.656E+00	2.439E+00	4.332E-01	-0.125
	+	92.59		1.237E+00	1.072E+00	1.435E+00	3.197E-01	0.862
U-235		89.96		1.182E+01	3.336E+00	2.660E+00	6.613E-01	4.444
	+	93.35		9.341E-01	8.121E-01	1.084E+00	2.523E-01	0.862
		143.76	*	-6.730E-02	2.758E-01	4.362E-01	7.359E-02	-0.154
		163.33		1.065E-02	6.412E-01	1.019E+00	1.833E-01	0.010
	+	185.72		1.414E-01	1.022E-01	1.100E-01	9.900E-03	1.285
		205.31		-7.026E-01	7.204E-01	1.146E+00	2.116E-01	-0.613
NP-237		86.48	*	3.390E+00	9.080E-01	8.471E-01	1.942E-01	4.001
		95.86		2.986E-01	1.217E+00	1.784E+00	4.302E-01	0.167
U-238		63.29	*	-3.045E-01	1.656E+00	2.439E+00	4.332E-01	-0.125

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.59		1.237E+00	1.042E+00	1.435E+00	1.310E-01	0.862
NP-239		99.53		-1.402E-01	2.053E-01	3.201E-01	2.810E-02	-0.438
		103.37		2.425E-02	1.273E-01	2.076E-01	1.795E-02	0.117
		106.12		6.928E-02	1.092E-01	1.815E-01	1.555E-02	0.382
		117.23	*	-6.707E-02	6.171E-01	8.781E-01	7.354E-02	-0.076
		228.18		9.495E-02	3.334E-01	5.680E-01	5.415E-02	0.167
		277.60		3.175E-01	2.844E-01	4.961E-01	4.935E-02	0.640
CM-247		278.00		1.467E+00	1.208E+00	2.114E+00	2.104E-01	0.694
		287.50		-5.309E-01	1.885E+00	3.092E+00	3.064E-01	-0.172
		402.40	*	-5.881E-03	6.787E-02	1.106E-01	9.352E-03	-0.053
CF-249		252.80		-1.472E-01	1.467E+00	2.447E+00	2.391E-01	-0.060
		333.37		3.350E-01	3.162E-01	4.942E-01	4.666E-02	0.678
		388.16	*	3.807E-02	7.084E-02	1.196E-01	1.009E-02	0.318
CF-251		177.52	*	-4.752E-02	1.847E-01	2.879E-01	2.558E-02	-0.165
		227.38		5.534E-02	5.452E-01	9.218E-01	8.781E-02	0.060
		285.41		2.086E+00	3.327E+00	5.714E+00	5.670E-01	0.365
ANH-511		511.00	*	4.201E-04	6.195E-02	1.104E-01	1.029E-02	0.004

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061471      *
* Acquisition date : 20-MAR-2010 11:12:22 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:17.31     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  6-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202061471          Analyst initials: MXR1            *
* Batch Number     : 961099               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.158E+00	8.528E-01	6.965E-01	0.000E+00
CO-57	1.504E-01	5.247E-02	6.066E-02	0.000E+00
CO-60	6.106E+00	5.838E-01	7.525E-02	0.000E+00
CD-109	3.207E+01	3.806E+00	1.932E+00	0.000E+00
SN-126	3.138E+00	3.724E-01	1.896E-01	0.000E+00
BA-137M	5.837E+00	6.254E-01	8.916E-02	0.000E+00
CS-137	6.166E+00	6.614E-01	9.419E-02	0.000E+00
TL-208	2.851E-01	1.228E-01	1.038E-01	0.000E+00
BI-211	2.426E+00	6.668E-01	5.728E-01	0.000E+00
PB-212	9.728E-01	1.918E-01	1.825E-01	0.000E+00
BI-214	8.831E-01	2.565E-01	1.951E-01	0.000E+00
PB-214	8.804E-01	2.466E-01	1.993E-01	0.000E+00
RA-226	8.831E-01	2.565E-01	1.951E-01	0.000E+00
AC-228	1.111E+00	5.393E-01	5.166E-01	0.000E+00
RA-228	1.111E+00	5.393E-01	5.166E-01	0.000E+00
TH-228	9.728E-01	1.918E-01	1.825E-01	0.000E+00
TH-232	1.111E+00	5.393E-01	5.166E-01	0.000E+00
AM-241	1.377E+01	1.204E+00	4.066E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-2.600E-01		5.901E-01	9.875E-01	0.000E+00	NOT IDENT.
NA-22	-3.988E-02		4.601E-02	6.506E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		3.603E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	4.896E-02		7.755E-02	1.392E-01	0.000E+00	NOT IDENT.
V-48	-3.443E-02		1.326E-01	2.219E-01	0.000E+00	NOT IDENT.
CR-51	2.410E-02		5.901E-01	1.051E+00	0.000E+00	NOT IDENT.
MN-54	-2.221E-02		6.757E-02	1.145E-01	0.000E+00	NOT IDENT.
CO-56	4.591E-02		7.287E-02	1.315E-01	0.000E+00	NOT IDENT.
CO-58	-2.889E-02		6.509E-02	1.091E-01	0.000E+00	NOT IDENT.

FE-59	-8.838E-02	1.625E-01	2.616E-01	0.000E+00	NOT IDENT.
ZN-65	-1.010E-01	1.752E-01	2.826E-01	0.000E+00	NOT IDENT.
SE-75	1.864E-02	6.796E-02	1.240E-01	0.000E+00	FAIL ABUN
SR-85	-1.237E-01	7.340E-02	1.116E-01	0.000E+00	NOT IDENT.
Y-88	4.803E-03	4.259E-02	7.331E-02	0.000E+00	NOT IDENT.
Y-91	8.553E+00	2.299E+01	4.036E+01	0.000E+00	NOT IDENT.
NB-94	-6.958E-02	5.392E-02	8.527E-02	0.000E+00	NOT IDENT.
NB-95	-7.260E-02	6.857E-02	1.100E-01	0.000E+00	NOT IDENT.
NB-95M	-2.382E-02	1.962E-01	3.120E-01	0.000E+00	NOT IDENT.
ZR-95	3.718E-02	1.246E-01	2.223E-01	0.000E+00	NOT IDENT.
MO-99	-3.493E+00	1.586E+01	2.729E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.110E+15	0.000E+00	0.000E+00	SHORT HLIF
RU-103	4.960E-02	6.985E-02	1.247E-01	0.000E+00	FAIL ABUN
RH-106	-2.140E-01	5.733E-01	9.365E-01	0.000E+00	NOT IDENT.
RU-106	-2.140E-01	5.729E-01	9.365E-01	0.000E+00	NOT IDENT.
AG-108M	7.854E-03	5.740E-02	1.003E-01	0.000E+00	NOT IDENT.
AG-110M	-4.288E-02	6.669E-02	9.618E-02	0.000E+00	NOT IDENT.
SN-113	6.344E-03	7.628E-02	1.341E-01	0.000E+00	NOT IDENT.
CD-115	6.502E+00	1.622E+01	2.844E+01	0.000E+00	NOT IDENT.
SN-117M	2.481E-03	7.406E-02	1.288E-01	0.000E+00	NOT IDENT.
TE-123M	1.691E-03	3.948E-02	6.868E-02	0.000E+00	NOT IDENT.
SB-124	-7.412E-02	8.905E-02	1.189E-01	0.000E+00	NOT IDENT.
SB-125	-1.492E-01	1.698E-01	2.793E-01	0.000E+00	NOT IDENT.
TE-125M	5.363E+00	1.251E+01	2.266E+01	0.000E+00	NOT IDENT.
I-126	3.420E-01	3.435E-01	5.831E-01	0.000E+00	NOT IDENT.
SB-126	9.943E-03	2.240E-01	3.733E-01	0.000E+00	NOT IDENT.
SB-127	-2.506E-01	1.849E+00	3.231E+00	0.000E+00	NOT IDENT.
I-131	-7.026E-02	1.781E-01	3.061E-01	0.000E+00	NOT IDENT.
TE-132	2.995E-01	9.539E-01	1.758E+00	0.000E+00	NOT IDENT.
BA-133	-1.421E-02	7.630E-02	1.163E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.065E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.997E-02	8.369E-02	1.480E-01	0.000E+00	NOT IDENT.
CS-135	-2.272E-01	2.442E-01	4.182E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.261E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.048E-02	2.085E-01	3.488E-01	0.000E+00	NOT IDENT.
CE-139	8.870E-03	4.286E-02	7.493E-02	0.000E+00	NOT IDENT.
BA-140	-2.858E-01	4.640E-01	7.418E-01	0.000E+00	NOT IDENT.
LA-140	-1.583E-02	1.014E-01	1.674E-01	0.000E+00	NOT IDENT.
CE-141	-1.501E-02	8.464E-02	1.465E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.601E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.676E-01	2.859E-01	4.744E-01	0.000E+00	NOT IDENT.
PM-144	-4.547E-02	5.393E-02	8.888E-02	0.000E+00	NOT IDENT.
PR-144	-3.376E+00	4.036E+00	6.656E+00	0.000E+00	NOT IDENT.
PM-146	8.247E-02	8.358E-02	1.513E-01	0.000E+00	NOT IDENT.
ND-147	2.916E-01	9.436E-01	1.645E+00	0.000E+00	NOT IDENT.
PM-149	1.120E+02	1.122E+02	2.086E+02	0.000E+00	NOT IDENT.
EU-152	-1.901E-02	1.608E-01	2.823E-01	0.000E+00	FAIL ABUN
GD-153	3.228E-03	1.122E-01	1.797E-01	0.000E+00	NOT IDENT.
EU-154	-1.014E-01	1.290E-01	1.849E-01	0.000E+00	FAIL ABUN
EU-155	1.152E-01	1.341E-01	2.479E-01	0.000E+00	NOT IDENT.
TB-160	-6.478E-02	2.749E-01	4.664E-01	0.000E+00	FAIL ABUN
HO-166M	-4.240E-02	9.777E-02	1.664E-01	0.000E+00	FAIL ABUN
TA-182	1.409E-01	1.918E-01	3.526E-01	0.000E+00	NOT IDENT.
IR-192	-2.822E-02	5.504E-02	9.511E-02	0.000E+00	FAIL ABUN
HG-203	5.997E-02	5.980E-02	1.118E-01	0.000E+00	NOT IDENT.
BI-207	4.117E-02	9.888E-02	1.730E-01	0.000E+00	FAIL ABUN
PB-210	-4.060E+00	3.928E+00	7.086E+00	0.000E+00	NOT IDENT.
PB-211	6.223E-01	1.304E+00	2.275E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.058E+00	1.655E+00	0.000E+00	FAIL ABUN
RN-219	4.036E-02	7.167E-01	1.255E+00	0.000E+00	NOT IDENT.
RA-223	-8.963E-01	1.042E+00	1.745E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	1.290E+00	2.284E+00	0.000E+00	NOT IDENT.
AC-227	1.334E-02	3.881E-01	7.022E-01	0.000E+00	NOT IDENT.
TH-227	1.334E-02	3.881E-01	7.022E-01	0.000E+00	NOT IDENT.
TH-229	-7.694E-01	7.441E-01	1.304E+00	0.000E+00	FAIL ABUN
PA-231	-1.020E+00	2.186E+00	3.816E+00	0.000E+00	NOT IDENT.
TH-231	-8.963E-01	1.042E+00	1.745E+00	0.000E+00	FAIL ABUN
PA-233	8.059E-02	1.003E-01	1.857E-01	0.000E+00	NOT IDENT.
PA-234	6.973E-01	6.801E-01	1.218E+00	0.000E+00	NOT IDENT.
PA-234M	-5.084E-01	9.469E+00	1.621E+01	0.000E+00	NOT IDENT.
TH-234	-3.045E-01	1.623E+00	2.669E+00	0.000E+00	FAIL ABUN
U-235	-6.730E-02	2.703E-01	4.679E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	8.899E-01	9.202E-01	0.000E+00	NOT IDENT.
U-238	-3.045E-01	1.623E+00	2.669E+00	0.000E+00	FAIL ABUN
NP-239	-6.707E-02	6.047E-01	9.466E-01	0.000E+00	NOT IDENT.
CM-247	-5.881E-03	6.651E-02	1.156E-01	0.000E+00	NOT IDENT.
CF-249	3.807E-02	6.942E-02	1.251E-01	0.000E+00	NOT IDENT.
CF-251	-4.752E-02	1.810E-01	3.072E-01	0.000E+00	NOT IDENT.

ANH-511	4.201E-04	6.071E-02	1.146E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 12:13:13.02

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061471.CNF;1
Sample date       : 6-MAR-2010 00:00:00. Acquisition date : 20-MAR-2010 11:12:22
Sample ID         : G1202061471          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:17.31  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 961099               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	32	10.66*	1.253E+00	1.158E+00	1.158E+00	75.14
CO-57	122.06	189	85.60*	7.377E+00	1.449E-01	1.504E-01	35.60
	136.47	------	10.68	7.171E+00	------ Line Not Found		------
CO-60	1173.23	1963	99.85	1.496E+00	6.344E+00	6.377E+00	9.46
	1332.49	1693	99.98*	1.346E+00	6.074E+00	6.106E+00	9.76
CD-109	88.03	1679	3.70*	6.982E+00	3.138E+01	3.207E+01	12.11
SN-126	64.28	------	9.60	4.779E+00	------ Line Not Found		------
	86.94	1679	8.90	6.982E+00	1.305E+01	1.305E+01	42.22
	87.57	1679	37.00*	6.982E+00	3.138E+00	3.138E+00	12.11
BA-137M	661.66	2642	89.90*	2.434E+00	5.831E+00	5.837E+00	10.93
CS-137	661.66	2642	85.10*	2.434E+00	6.160E+00	6.166E+00	10.95
TL-208	277.37	------	6.60	4.721E+00	------ Line Not Found		------
	583.19	135	85.00*	2.694E+00	2.851E-01	2.851E-01	43.94
	860.56	------	12.50	1.954E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.845E+00	------ Line Not Found		------
	351.06	257	12.92*	3.968E+00	2.426E+00	2.426E+00	28.05
PB-212	74.82	204	10.28	6.061E+00	1.578E+00	1.578E+00	38.07
	77.11	304	17.10	6.269E+00	1.367E+00	1.367E+00	26.59
	238.63	461	43.60*	5.249E+00	9.728E-01	9.728E-01	20.12
	300.09	------	3.30	4.461E+00	------ Line Not Found		------
BI-214	609.32	216	45.49*	2.602E+00	8.831E-01	8.831E-01	29.64
	1120.29	------	14.92	1.557E+00	------ Line Not Found		------
	1764.49	28	15.30	1.100E+00	7.946E-01	7.946E-01	55.96
PB-214	74.82	204	5.80	6.061E+00	2.796E+00	2.796E+00	37.65
	77.11	304	9.70	6.269E+00	2.411E+00	2.411E+00	27.84
	242.00	------	7.25	5.198E+00	------ Line Not Found		------
	295.22	120	18.42	4.520E+00	6.980E-01	6.980E-01	56.70
	351.93	257	35.60*	3.968E+00	8.804E-01	8.804E-01	28.58
RA-226	609.32	216	45.49*	2.602E+00	8.831E-01	8.831E-01	29.64
	1120.29	------	14.92	1.557E+00	------ Line Not Found		------
	1764.49	28	15.30	1.100E+00	7.946E-01	7.946E-01	55.96
AC-228	338.32	107	11.27	4.089E+00	1.122E+00	1.122E+00	65.79

Sample ID : G1202061471 Acquisition date : 20-MAR-2010 11:12:22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	110	25.80*	1.860E+00	1.111E+00	1.111E+00	49.56
	968.97	107	15.80	1.763E+00	1.852E+00	1.852E+00	47.77
RA-228	338.32	107	11.27	4.089E+00	1.122E+00	1.122E+00	65.79
	911.20	110	25.80*	1.860E+00	1.111E+00	1.111E+00	49.56
	968.97	107	15.80	1.763E+00	1.852E+00	1.852E+00	47.77
TH-228	74.82	204	10.28	6.061E+00	1.578E+00	1.578E+00	36.83
	77.11	304	17.10	6.269E+00	1.367E+00	1.367E+00	26.59
	238.63	461	43.60*	5.249E+00	9.728E-01	9.728E-01	20.12
	300.09	------	3.30	4.461E+00	------	Line Not Found	------
TH-232	338.32	107	11.27	4.089E+00	1.122E+00	1.122E+00	51.60
	911.20	110	25.80*	1.860E+00	1.111E+00	1.111E+00	49.56
	968.97	107	15.80	1.763E+00	1.852E+00	1.852E+00	47.77
AM-241	59.54	4173	35.90*	4.076E+00	1.377E+01	1.377E+01	8.92

Flag: "*" = Keyline

Sample ID : G1202061471 Acquisition date : 20-MAR-2010 11:12:22

Total number of lines in spectrum	22	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	21	95.45%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	1.158E+00	1.158E+00	0.870E+00	75.14	
CO-57	271.74D	1.04	1.449E-01	1.504E-01	0.535E-01	35.60	
CO-60	5.27Y	1.01	6.074E+00	6.106E+00	0.596E+00	9.76	
CD-109	461.40D	1.02	3.138E+01	3.207E+01	0.388E+01	12.11	
SN-126	2.30E+05Y	1.00	3.138E+00	3.138E+00	0.380E+00	12.11	
BA-137M	30.08Y	1.00	5.831E+00	5.837E+00	0.638E+00	10.93	
CS-137	30.08Y	1.00	6.160E+00	6.166E+00	0.675E+00	10.95	
TL-208	1.41E+10Y	1.00	2.851E-01	2.851E-01	1.253E-01	43.94	
BI-211	7.04E+08Y	1.00	2.426E+00	2.426E+00	0.680E+00	28.05	
PB-212	1.41E+10Y	1.00	9.728E-01	9.728E-01	1.957E-01	20.12	
BI-214	1600.00Y	1.00	8.831E-01	8.831E-01	2.617E-01	29.64	
PB-214	1600.00Y	1.00	8.804E-01	8.804E-01	2.517E-01	28.58	
RA-226	1600.00Y	1.00	8.831E-01	8.831E-01	2.617E-01	29.64	
AC-228	1.41E+10Y	1.00	1.111E+00	1.111E+00	0.550E+00	49.56	
RA-228	1.41E+10Y	1.00	1.111E+00	1.111E+00	0.550E+00	49.56	
TH-228	1.41E+10Y	1.00	9.728E-01	9.728E-01	1.957E-01	20.12	
TH-232	1.41E+10Y	1.00	1.111E+00	1.111E+00	0.550E+00	49.56	
AM-241	432.60Y	1.00	1.377E+01	1.377E+01	0.123E+01	8.92	
	Total Activity :		7.830E+01	7.904E+01			

Grand Total Activity : 7.830E+01 7.904E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202061471 Acquisition date : 20-MAR-2010 11:12:22

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.02	78	299	1.05	185.93	183	8	2.16E-02	83.8	7.18E+00	T
0	185.79	103	306	1.96	371.20	365	12	2.87E-02	71.7	6.18E+00	T
0	727.49	62	58	1.39	1453.72	1449	10	1.72E-02	52.3	2.25E+00	T
0	1378.13	15	12	1.06	2755.36	2749	10	4.05E-03	****	1.31E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 20-MAR-2010 12:13:17.32

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202061471.CNF;1 *
* Acquisition date : 20-MAR-2010 11:12:22  Detector SN#     :              *
* Detector ID      : GAM20                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 01:00:17.31         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 6-MAR-2010 00:00:00.  Nuclide Library : SOLID         *
* Sample ID        : G1202061471           Analyst initials: MXR1          *
* Batch Number     : 961099                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.158E+00	8.702E-01	6.906E-01	6.023E-02	1.677
CO-57	1.504E-01	5.354E-02	5.633E-02	4.702E-03	2.670
CO-60	6.106E+00	5.958E-01	7.442E-02	6.234E-03	82.038
CD-109	3.207E+01	3.884E+00	1.779E+00	1.682E-01	18.028
SN-126	3.138E+00	3.800E-01	1.746E-01	1.642E-02	17.977
BA-137M	5.837E+00	6.381E-01	8.649E-02	8.680E-03	67.486
CS-137	6.166E+00	6.749E-01	9.137E-02	9.182E-03	67.486
TL-208	2.851E-01	1.253E-01	1.003E-01	1.030E-02	2.843
BI-211	2.426E+00	6.804E-01	5.464E-01	5.235E-02	4.440
PB-212	9.728E-01	1.957E-01	1.724E-01	1.841E-02	5.644
BI-214	8.831E-01	2.617E-01	1.889E-01	2.110E-02	4.676
PB-214	8.804E-01	2.517E-01	1.901E-01	2.100E-02	4.631
RA-226	8.831E-01	2.617E-01	1.889E-01	2.110E-02	4.676
AC-228	1.111E+00	5.503E-01	5.055E-01	6.354E-02	2.197
RA-228	1.111E+00	5.503E-01	5.055E-01	6.354E-02	2.197
TH-228	9.728E-01	1.957E-01	1.724E-01	1.841E-02	5.644
TH-232	1.111E+00	5.503E-01	5.055E-01	6.354E-02	2.197
AM-241	1.377E+01	1.229E+00	3.710E-01	2.903E-02	37.123

Sample ID : G1202061471 Acquisition date : 20-MAR-2010 11:12:22

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.600E-01		6.021E-01	9.495E-01	9.227E-02	-0.274
NA-22	-3.988E-02		4.695E-02	6.427E-02	5.324E-03	-0.621
NA-24	-2.668E-01		1.838E-01	Half-Life too short		
SC-46	4.896E-02		7.913E-02	1.361E-01	1.357E-02	0.360
V-48	-3.443E-02		1.353E-01	2.176E-01	2.080E-02	-0.158
CR-51	2.410E-02		6.022E-01	1.000E+00	1.002E-01	0.024
MN-54	-2.221E-02		6.895E-02	1.117E-01	1.129E-02	-0.199
CO-56	4.591E-02		7.435E-02	1.284E-01	1.294E-02	0.358
CO-58	-2.889E-02		6.642E-02	1.065E-01	1.081E-02	-0.271
FE-59	-8.838E-02		1.659E-01	2.573E-01	2.426E-02	-0.343
ZN-65	-1.010E-01		1.788E-01	2.781E-01	2.393E-02	-0.363
SE-75	1.864E-02		6.935E-02	1.174E-01	1.163E-02	0.159
SR-85	-1.237E-01		7.489E-02	1.075E-01	1.004E-02	-1.151
Y-88	4.803E-03		4.346E-02	7.317E-02	5.904E-03	0.066
Y-91	8.553E+00		2.346E+01	3.980E+01	3.232E+00	0.215
NB-94	-6.958E-02		5.502E-02	8.285E-02	8.382E-03	-0.840
NB-95	-7.260E-02		6.997E-02	1.071E-01	1.088E-02	-0.678
NB-95M	-2.382E-02		2.002E-01	2.945E-01	3.170E-02	-0.081
ZR-95	3.718E-02		1.271E-01	2.164E-01	2.367E-02	0.172
MO-99	-3.493E+00		1.618E+01	2.656E+01	4.421E+00	-0.132
TC-99M	1.678E+09		4.138E+09	Half-Life too short		
RU-103	4.960E-02		7.128E-02	1.201E-01	1.723E-02	0.413
RH-106	-2.140E-01		5.850E-01	9.070E-01	1.281E-01	-0.236
RU-106	-2.140E-01		5.846E-01	9.070E-01	8.977E-02	-0.236
AG-108M	7.854E-03		5.857E-02	9.624E-02	8.674E-03	0.082
AG-110M	-4.288E-02		6.805E-02	9.329E-02	9.558E-03	-0.460
SN-113	6.344E-03		7.784E-02	1.283E-01	1.106E-02	0.049
CD-115	6.502E+00		1.655E+01	2.742E+01	2.584E+00	0.237
SN-117M	2.481E-03		7.558E-02	1.204E-01	1.039E-02	0.021
TE-123M	1.691E-03		4.029E-02	6.419E-02	5.577E-03	0.026
SB-124	-7.412E-02		9.086E-02	1.184E-01	1.031E-02	-0.626
SB-125	-1.492E-01		1.733E-01	2.678E-01	2.369E-02	-0.557
TE-125M	5.363E+00		1.276E+01	2.098E+01	2.177E+00	0.256
I-126	3.420E-01		3.506E-01	5.657E-01	5.684E-02	0.605
SB-126	9.943E-03		2.286E-01	3.630E-01	3.681E-02	0.027
SB-127	-2.506E-01		1.887E+00	3.137E+00	3.873E-01	-0.080
I-131	-7.026E-02		1.818E-01	2.923E-01	2.739E-02	-0.240
TE-132	2.995E-01		9.734E-01	1.658E+00	2.688E-01	0.181
BA-133	-1.421E-02		7.786E-02	1.109E-01	1.472E-02	-0.128
I-133	4.981E-04		3.094E-03	Half-Life too short		
CS-134	1.997E-02		8.540E-02	1.443E-01	1.472E-02	0.138
CS-135	-2.272E-01		2.492E-01	3.961E-01	4.390E-02	-0.573
I-135	-1.173E+09		6.435E+08	Half-Life too short		
CS-136	-4.048E-02		2.128E-01	3.426E-01	3.250E-02	-0.118
CE-139	8.870E-03		4.373E-02	7.011E-02	6.121E-03	0.127
BA-140	-2.858E-01		4.735E-01	7.156E-01	2.443E-01	-0.399
LA-140	-1.583E-02		1.035E-01	1.664E-01	1.405E-02	-0.095
CE-141	-1.501E-02		8.637E-02	1.366E-01	1.179E-02	-0.110

Sample ID : G1202061471 Acquisition date : 20-MAR-2010 11:12:22

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-143	4.423E-04	+	1.327E-04	Half-Life too short		
CE-144	-2.676E-01		2.917E-01	4.415E-01	6.688E-02	-0.606
PM-144	-4.547E-02		5.503E-02	8.634E-02	8.729E-03	-0.527
PR-144	-3.376E+00		4.119E+00	6.466E+00	6.536E-01	-0.522
PM-146	8.247E-02		8.528E-02	1.453E-01	1.573E-02	0.567
ND-147	2.916E-01		9.629E-01	1.587E+00	2.450E-01	0.184
PM-149	1.120E+02		1.144E+02	1.979E+02	3.225E+01	0.566
EU-152	-1.901E-02		1.640E-01	2.692E-01	2.625E-02	-0.071
GD-153	3.228E-03		1.145E-01	1.659E-01	1.472E-02	0.019
EU-154	-1.014E-01		1.316E-01	1.827E-01	2.031E-02	-0.555
EU-155	1.152E-01		1.368E-01	2.293E-01	1.993E-02	0.502
TB-160	-6.478E-02		2.805E-01	4.560E-01	4.559E-02	-0.142
HO-166M	-4.240E-02		9.976E-02	1.618E-01	1.639E-02	-0.262
TA-182	1.409E-01		1.957E-01	3.479E-01	2.839E-02	0.405
IR-192	-2.822E-02		5.616E-02	9.047E-02	8.750E-03	-0.312
HG-203	5.997E-02		6.102E-02	1.060E-01	1.076E-02	0.566
BI-207	4.117E-02		1.009E-01	1.700E-01	1.535E-02	0.242
PB-210	-4.060E+00		4.008E+00	6.428E+00	5.906E-01	-0.632
PB-211	6.223E-01		1.330E+00	2.178E+00	1.054E+00	0.286
BI-212	1.997E+00	+	1.079E+00	1.609E+00	2.182E-01	1.241
RN-219	4.036E-02		7.313E-01	1.202E+00	1.776E-01	0.034
RA-223	-8.963E-01		1.063E+00	1.661E+00	2.960E-01	-0.540
RA-224	4.190E+00		1.316E+00	2.158E+00	2.086E-01	1.942
AC-227	1.334E-02		3.960E-01	6.643E-01	8.584E-02	0.020
TH-227	1.334E-02		3.960E-01	6.643E-01	9.554E-02	0.020
TH-229	-7.694E-01		7.593E-01	1.225E+00	1.115E-01	-0.628
PA-231	-1.020E+00		2.231E+00	3.620E+00	5.573E-01	-0.282
TH-231	-8.963E-01		1.063E+00	1.661E+00	2.960E-01	-0.540
PA-233	8.059E-02		1.024E-01	1.765E-01	1.752E-02	0.456
PA-234	6.973E-01		6.939E-01	1.193E+00	2.303E-01	0.585
PA-234M	-5.084E-01		9.663E+00	1.590E+01	1.701E+00	-0.032
TH-234	-3.045E-01		1.656E+00	2.439E+00	4.332E-01	-0.125
U-235	-6.730E-02		2.758E-01	4.362E-01	7.359E-02	-0.154
NP-237	3.390E+00		9.080E-01	8.471E-01	1.942E-01	4.001
U-238	-3.045E-01		1.656E+00	2.439E+00	4.332E-01	-0.125
NP-239	-6.707E-02		6.171E-01	8.781E-01	7.354E-02	-0.076
CM-247	-5.881E-03		6.787E-02	1.106E-01	9.352E-03	-0.053
CF-249	3.807E-02		7.084E-02	1.196E-01	1.009E-02	0.318
CF-251	-4.752E-02		1.847E-01	2.879E-01	2.558E-02	-0.165
ANH-511	4.201E-04		6.195E-02	1.104E-01	1.029E-02	0.004

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202061471           *
* Acquisition date : 20-MAR-2010 11:12:22 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:17.31     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  6-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202061471          Analyst initials: MXR1            *
* Batch Number     : 961099               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.158E+00	8.528E-01	3.485E-01	4.351E-01
CO-57	1.504E-01	5.247E-02	3.035E-02	2.677E-02
CO-60	6.106E+00	5.838E-01	3.765E-02	2.979E-01
CD-109	3.207E+01	3.806E+00	9.664E-01	1.942E+00
SN-126	3.138E+00	3.724E-01	9.484E-02	1.900E-01
BA-137M	5.837E+00	6.254E-01	4.461E-02	3.191E-01
CS-137	6.166E+00	6.614E-01	4.712E-02	3.375E-01
TL-208	2.851E-01	1.228E-01	5.191E-02	6.265E-02
BI-211	2.426E+00	6.668E-01	2.866E-01	3.402E-01
PB-212	9.728E-01	1.918E-01	9.132E-02	9.787E-02
BI-214	8.831E-01	2.565E-01	9.762E-02	1.309E-01
PB-214	8.804E-01	2.466E-01	9.971E-02	1.258E-01
RA-226	8.831E-01	2.565E-01	9.762E-02	1.309E-01
AC-228	1.111E+00	5.393E-01	2.585E-01	2.752E-01
RA-228	1.111E+00	5.393E-01	2.585E-01	2.752E-01
TH-228	9.728E-01	1.918E-01	9.132E-02	9.787E-02
TH-232	1.111E+00	5.393E-01	2.585E-01	2.752E-01
AM-241	1.377E+01	1.204E+00	2.034E-01	6.143E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.600E-01	5.901E-01	4.940E-01	3.011E-01	NOT IDENT.
NA-22	-3.988E-02	4.601E-02	3.255E-02	2.347E-02	NOT IDENT.
NA-24	-2.668E+05	3.603E+05	0.000E+00	1.838E+05	SHORT HLIF
SC-46	4.896E-02	7.755E-02	6.965E-02	3.957E-02	NOT IDENT.
V-48	-3.443E-02	1.326E-01	1.110E-01	6.765E-02	NOT IDENT.
CR-51	2.410E-02	5.901E-01	5.259E-01	3.011E-01	NOT IDENT.
MN-54	-2.221E-02	6.757E-02	5.726E-02	3.448E-02	NOT IDENT.
CO-56	4.591E-02	7.287E-02	6.578E-02	3.718E-02	NOT IDENT.
CO-58	-2.889E-02	6.509E-02	5.460E-02	3.321E-02	NOT IDENT.

FE-59	-8.838E-02	1.625E-01	1.309E-01	8.293E-02	NOT IDENT.
ZN-65	-1.010E-01	1.752E-01	1.414E-01	8.938E-02	NOT IDENT.
SE-75	1.864E-02	6.796E-02	6.206E-02	3.467E-02	FAIL ABUN
SR-85	-1.237E-01	7.340E-02	5.584E-02	3.745E-02	NOT IDENT.
Y-88	4.803E-03	4.259E-02	3.668E-02	2.173E-02	NOT IDENT.
Y-91	8.553E+00	2.299E+01	2.019E+01	1.173E+01	NOT IDENT.
NB-94	-6.958E-02	5.392E-02	4.266E-02	2.751E-02	NOT IDENT.
NB-95	-7.260E-02	6.857E-02	5.501E-02	3.498E-02	NOT IDENT.
NB-95M	-2.382E-02	1.962E-01	1.561E-01	1.001E-01	NOT IDENT.
ZR-95	3.718E-02	1.246E-01	1.112E-01	6.356E-02	NOT IDENT.
MO-99	-3.493E+00	1.586E+01	1.365E+01	8.090E+00	NOT IDENT.
TC-99M	1.678E+15	8.110E+15	0.000E+00	4.138E+15	SHORT HLIF
RU-103	4.960E-02	6.985E-02	6.241E-02	3.564E-02	FAIL ABUN
RH-106	-2.140E-01	5.733E-01	4.685E-01	2.925E-01	NOT IDENT.
RU-106	-2.140E-01	5.729E-01	4.685E-01	2.923E-01	NOT IDENT.
AG-108M	7.854E-03	5.740E-02	5.020E-02	2.928E-02	NOT IDENT.
AG-110M	-4.288E-02	6.669E-02	4.812E-02	3.403E-02	NOT IDENT.
SN-113	6.344E-03	7.628E-02	6.709E-02	3.892E-02	NOT IDENT.
CD-115	6.502E+00	1.622E+01	1.423E+01	8.276E+00	NOT IDENT.
SN-117M	2.481E-03	7.406E-02	6.444E-02	3.779E-02	NOT IDENT.
TE-123M	1.691E-03	3.948E-02	3.436E-02	2.014E-02	NOT IDENT.
SB-124	-7.412E-02	8.905E-02	5.949E-02	4.543E-02	NOT IDENT.
SB-125	-1.492E-01	1.698E-01	1.398E-01	8.663E-02	NOT IDENT.
TE-125M	5.363E+00	1.251E+01	1.134E+01	6.381E+00	NOT IDENT.
I-126	3.420E-01	3.435E-01	2.917E-01	1.753E-01	NOT IDENT.
SB-126	9.943E-03	2.240E-01	1.868E-01	1.143E-01	NOT IDENT.
SB-127	-2.506E-01	1.849E+00	1.616E+00	9.435E-01	NOT IDENT.
I-131	-7.026E-02	1.781E-01	1.532E-01	9.089E-02	NOT IDENT.
TE-132	2.995E-01	9.539E-01	8.795E-01	4.867E-01	NOT IDENT.
BA-133	-1.421E-02	7.630E-02	5.817E-02	3.893E-02	NOT IDENT.
I-133	4.981E+02	6.065E+03	0.000E+00	3.094E+03	SHORT HLIF
CS-134	1.997E-02	8.369E-02	7.405E-02	4.270E-02	NOT IDENT.
CS-135	-2.272E-01	2.442E-01	2.092E-01	1.246E-01	NOT IDENT.
I-135	-1.173E+15	1.261E+15	0.000E+00	6.435E+14	SHORT HLIF
CS-136	-4.048E-02	2.085E-01	1.745E-01	1.064E-01	NOT IDENT.
CE-139	8.870E-03	4.286E-02	3.749E-02	2.187E-02	NOT IDENT.
BA-140	-2.858E-01	4.640E-01	3.711E-01	2.367E-01	NOT IDENT.
LA-140	-1.583E-02	1.014E-01	8.377E-02	5.173E-02	NOT IDENT.
CE-141	-1.501E-02	8.464E-02	7.328E-02	4.319E-02	NOT IDENT.
CE-143	4.423E+02	2.601E+02	0.000E+00	1.327E+02	SHORT HLIF
CE-144	-2.676E-01	2.859E-01	2.374E-01	1.459E-01	NOT IDENT.
PM-144	-4.547E-02	5.393E-02	4.447E-02	2.751E-02	NOT IDENT.
PR-144	-3.376E+00	4.036E+00	3.330E+00	2.059E+00	NOT IDENT.
PM-146	8.247E-02	8.358E-02	7.571E-02	4.264E-02	NOT IDENT.
ND-147	2.916E-01	9.436E-01	8.232E-01	4.814E-01	NOT IDENT.
PM-149	1.120E+02	1.122E+02	1.044E+02	5.722E+01	NOT IDENT.
EU-152	-1.901E-02	1.608E-01	1.413E-01	8.202E-02	FAIL ABUN
GD-153	3.228E-03	1.122E-01	8.991E-02	5.727E-02	NOT IDENT.
EU-154	-1.014E-01	1.290E-01	9.252E-02	6.581E-02	FAIL ABUN
EU-155	1.152E-01	1.341E-01	1.240E-01	6.842E-02	NOT IDENT.
TB-160	-6.478E-02	2.749E-01	2.333E-01	1.402E-01	FAIL ABUN
HO-166M	-4.240E-02	9.777E-02	8.327E-02	4.988E-02	FAIL ABUN
TA-182	1.409E-01	1.918E-01	1.764E-01	9.787E-02	NOT IDENT.
IR-192	-2.822E-02	5.504E-02	4.758E-02	2.808E-02	FAIL ABUN
HG-203	5.997E-02	5.980E-02	5.594E-02	3.051E-02	NOT IDENT.
BI-207	4.117E-02	9.888E-02	8.653E-02	5.045E-02	FAIL ABUN
PB-210	-4.060E+00	3.928E+00	3.545E+00	2.004E+00	NOT IDENT.
PB-211	6.223E-01	1.304E+00	1.138E+00	6.652E-01	NOT IDENT.
BI-212	1.997E+00	1.058E+00	8.279E-01	5.395E-01	FAIL ABUN
RN-219	4.036E-02	7.167E-01	6.281E-01	3.657E-01	NOT IDENT.
RA-223	-8.963E-01	1.042E+00	8.731E-01	5.317E-01	FAIL ABUN
RA-224	4.190E+00	1.290E+00	1.143E+00	6.582E-01	NOT IDENT.
AC-227	1.334E-02	3.881E-01	3.513E-01	1.980E-01	NOT IDENT.
TH-227	1.334E-02	3.881E-01	3.513E-01	1.980E-01	NOT IDENT.
TH-229	-7.694E-01	7.441E-01	6.523E-01	3.797E-01	FAIL ABUN
PA-231	-1.020E+00	2.186E+00	1.909E+00	1.115E+00	NOT IDENT.
TH-231	-8.963E-01	1.042E+00	8.731E-01	5.317E-01	FAIL ABUN
PA-233	8.059E-02	1.003E-01	9.289E-02	5.120E-02	NOT IDENT.
PA-234	6.973E-01	6.801E-01	6.093E-01	3.470E-01	NOT IDENT.
PA-234M	-5.084E-01	9.469E+00	8.108E+00	4.831E+00	NOT IDENT.
TH-234	-3.045E-01	1.623E+00	1.335E+00	8.279E-01	FAIL ABUN
U-235	-6.730E-02	2.703E-01	2.341E-01	1.379E-01	FAIL ABUN
NP-237	3.390E+00	8.899E-01	4.604E-01	4.540E-01	NOT IDENT.
U-238	-3.045E-01	1.623E+00	1.335E+00	8.279E-01	FAIL ABUN
NP-239	-6.707E-02	6.047E-01	4.736E-01	3.085E-01	NOT IDENT.
CM-247	-5.881E-03	6.651E-02	5.782E-02	3.393E-02	NOT IDENT.
CF-249	3.807E-02	6.942E-02	6.258E-02	3.542E-02	NOT IDENT.
CF-251	-4.752E-02	1.810E-01	1.537E-01	9.233E-02	NOT IDENT.

ANH-511	4.201E-04	6.071E-02	5.732E-02	3.098E-02 NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	552.4398
49.72	604.1600
57.36	0.0000
59.54	579.0117
63.29	334.7217
63.29	334.7217
64.28	306.9193
67.75	353.5674
69.67	351.6808
70.83	331.4899
72.81	367.8333
72.87	367.8699
72.87	367.8699
74.82	364.9431
74.82	364.9431
74.82	364.9431
74.97	365.0318
77.11	366.2866
77.11	366.2866
77.11	366.2866
79.69	357.9626
79.80	371.9733
80.12	372.1582
80.19	372.1985
80.57	389.4874
81.00	406.8264
81.07	406.8704
81.07	406.8704
83.79	396.0863
83.79	396.0863
85.43	417.3851
86.48	435.2573
86.55	435.3040
86.79	435.4567
86.94	399.5192
87.57	399.8889
88.03	400.1593
88.47	400.4161
89.96	242.3439
91.11	242.7446
92.59	243.2568
92.59	243.2568
93.35	230.8685
94.67	247.1396
94.87	215.5153
94.87	215.5153
95.86	226.9200
97.43	219.4606
98.44	227.1954
99.53	240.2917
100.11	212.8143
103.18	231.8528
103.37	222.2928
105.31	215.3598
106.12	220.9506
109.28	229.3904
111.00	226.6535
111.76	240.9153
116.30	230.3266
117.23	238.2024
121.12	229.4878
121.78	232.9492
122.06	233.0273
123.07	244.8078
131.20	285.2687
133.52	273.8222
136.00	217.8861

136.47	240.2446
140.51	222.3163
140.51	0.0000
143.76	227.5800
144.24	238.9143
144.24	238.9143
145.44	235.8505
152.43	246.6293
153.25	225.3224
154.21	206.2774
154.21	206.2774
156.02	231.6375
158.56	220.8471
159.00	218.6660
162.66	224.0350
163.33	233.3329
165.86	224.7369
176.60	195.7724
177.52	208.6926
181.07	198.9103
184.41	223.1445
185.72	223.4090
193.51	252.3120
197.04	234.5054
205.31	258.4516
210.85	225.6276
215.65	224.7219
222.11	222.2844
227.38	225.0300
228.16	219.7205
228.18	220.6322
235.69	222.1070
235.96	232.3822
235.96	232.3822
238.63	308.4633
238.63	308.4633
240.99	236.2093
242.00	217.3027
244.70	300.6872
252.40	186.8075
252.80	192.4133
256.23	195.6779
256.23	195.6779
260.90	183.3108
264.66	181.0047
268.22	222.6166
269.46	187.2345
269.46	187.2345
271.23	176.2184
273.65	249.7525
276.40	182.4966
277.37	177.9114
277.60	181.7061
278.00	178.9310
279.20	174.3634
279.54	185.7186
280.46	207.5307
283.69	178.6785
284.31	176.8619
285.41	154.2775
285.90	145.8084
287.50	170.6067
293.27	0.0000
295.22	173.3910
295.96	196.7313
298.57	189.4300
299.98	172.7857
299.98	172.7857
300.09	186.5593
300.09	186.5593
300.13	186.5653
301.36	184.7465
302.85	194.3610
304.50	169.6484
304.50	169.6484
304.85	163.9341
308.46	172.9633
311.90	144.4519

316.51	173.8477
319.41	159.6474
320.08	169.3951
323.87	186.2871
323.87	186.2871
328.76	159.5982
333.37	134.2826
334.37	164.0497
334.37	164.0497
338.28	173.8304
338.28	173.8304
338.32	173.8359
338.32	173.8359
338.32	173.8359
340.48	175.6289
340.55	175.6344
344.28	168.9529
351.06	156.2126
351.93	143.0707
356.01	151.9149
364.49	151.0653
366.42	145.2604
383.85	167.7721
388.16	149.0343
388.63	146.0509
391.69	152.3479
400.66	154.0944
401.81	159.2591
402.40	165.3976
404.85	154.4353
410.95	170.2184
414.70	171.5735
423.72	127.2260
427.09	163.4156
427.87	176.8475
433.94	168.1062
453.88	152.0640
463.37	161.1318
468.07	187.7075
473.00	151.3586
476.78	144.2560
477.60	147.4725
487.02	122.7278
492.35	135.7559
497.08	110.5397
511.00	126.2077
514.00	200.2740
527.90	104.5219
529.87	0.0000
531.02	104.6640
537.26	119.0100
546.56	0.0000
563.25	109.3872
569.33	101.9855
569.50	101.9912
569.70	98.7094
583.19	104.7702
600.60	93.2849
602.73	119.1507
604.72	83.6499
609.32	99.1771
609.32	99.1771
610.33	99.2178
614.28	91.1077
618.01	98.3958
621.93	110.8644
621.93	110.8644
633.25	82.1027
635.95	87.3663
636.99	84.6987
645.85	92.2134
657.76	104.4293
661.66	70.9332
661.66	70.9332
664.57	0.0000
666.33	59.2125
666.50	59.2157
677.62	72.2611

685.70	83.4818
695.00	104.0091
696.49	96.6969
696.51	96.6969
697.00	93.0280
702.65	106.1364
706.68	68.3922
711.68	90.7337
720.70	75.4617
721.93	0.0000
722.78	75.9025
722.91	75.9065
723.31	82.1138
724.19	69.7394
727.33	80.0560
733.00	59.0704
735.93	69.0877
739.50	72.9098
747.24	79.6626
752.31	91.0630
753.82	84.5332
756.73	87.4373
763.94	96.1280
765.81	104.6750
766.42	88.6620
777.92	98.4648
778.90	88.0775
783.70	81.5761
785.37	97.7544
795.86	97.1341
801.95	90.6443
810.29	91.8398
810.76	81.3290
815.77	64.2078
818.51	103.5888
832.01	92.4680
834.85	102.1906
836.80	0.0000
846.77	82.2462
856.80	108.7023
860.56	84.5340
871.09	100.3999
873.19	101.4381
875.33	0.0000
879.36	99.6716
880.51	98.7265
883.24	96.8513
884.68	95.9137
889.28	87.2226
898.04	96.2917
911.20	116.7155
911.20	116.7155
911.20	116.7155
926.50	105.0114
937.49	107.3276
944.13	97.5741
946.00	100.6129
949.00	115.6545
962.29	146.7741
964.08	95.1160
966.15	96.8390
968.97	140.3589
968.97	140.3589
968.97	140.3589
983.53	87.5735
996.26	93.9377
1001.03	101.1377
1004.73	100.2254
1037.84	71.4937
1038.76	0.0000
1048.07	93.1906
1050.41	86.0713
1050.41	86.0713
1063.66	74.0285
1085.87	78.5865
1099.45	79.8913
1112.07	94.7147
1115.54	104.1748

1120.29	88.6523
1120.29	88.6523
1120.55	90.7425
1121.30	91.8027
1131.51	0.0000
1173.23	49.6529
1177.93	45.8301
1189.05	31.8120
1204.77	26.6077
1221.41	20.3007
1231.02	24.6284
1235.36	28.9406
1238.28	20.3786
1260.41	0.0000
1271.85	24.8575
1274.44	25.9535
1274.54	27.0349
1291.59	14.1115
1298.22	0.0000
1312.11	30.5307
1332.49	19.7139
1365.19	15.6248
1368.63	0.0000
1384.29	22.1465
1408.01	15.7653
1457.56	0.0000
1460.82	16.8728
1489.16	12.2547
1505.03	13.2384
1596.21	15.3958
1620.50	15.4655
1678.03	0.0000
1690.97	12.7276
1764.49	7.9339
1764.49	7.9339
1770.23	5.1054
1771.35	19.8584
1791.20	0.0000
1836.06	9.0348

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202061471

Total Uranium Activity	-9.3706E-01	ug/g
Total Uranium Counting Unc.	4.8294E+00	ug/g
Total Uranium Tpu	2.4640E-06	ug/g
Total Uranium Mda	3.9740E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 961099                    SAMPLE ID  : G1202061471      *
*   ANALYST       : MXR1                      DETECTOR   : GAM20            *
*   SAMPLE DATE   :  6-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 20-MAR-2010 11:12:22.31    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.706E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.360E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 3.804E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.846E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 964063 Product: H3 Date: 3-30-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 3/30/10

LANL 3-31-10

Tritium Que Sheet

/ 29-MAR-10

Batch #: 964063 Analyst: KXK2 First Client Due Date 31-MAR-10 Internal Due Date: 20-MAR-10

Spike Isotope: Hydrogen-3 Spike Code: — Expiration Date: — Vol: —

LCS Isotope: Hydrogen-3 LCS Code: 0134-K Expiration Date: 3/11/11 Vol: 0.1

Prep Date: 3/26/10 Initials: KKJ Pipet ID: 2970968 Witness: 3/29/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture ~~Dist Vol (mL)~~ KKJ 3/29/10
248515001-1	RE36-10-7501	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	5	1		290.91	221.09	69.82
248515002-1	RE36-10-7524	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	6	2		227.84	191.39	36.45
248515003-1	RE36-10-7525	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	7	3		385.82	308.27	77.55
248517001-1	RE36-10-8292	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	8	4		171.72	133.77	37.95
248521001-1	RE36-10-8288	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	9	5		305.80	255.65	50.15
248521002-1	RE36-10-8279	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	10	6		309.69	287.70	21.99
248521003-1	RE36-10-8277	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	11	7		406.14	302.98	103.16
248521004-1	RE36-10-8280	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	12	8		384.86	348.30	36.56
248521005-1	RE36-10-8278	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	13	9		447.75	419.09	28.66
248521006-1	RE36-10-8274	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	14	10		500.95	449.85	51.10
248521007-1	RE36-10-8291	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	15	11	KKJ 3/29/10	252.51	179.53	72.98
248521008-1	RE36-10-8287	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	16	12		405.46	272.06	133.40
248521009-1	RE36-10-8273	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	17	13		242.34	~~100.05~~ *	70.28 72.0
248521010-1	RE36-10-8275	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	18	14		167.25	~~368.39~~ *	67.23 *100.0
248521011-1	RE36-10-8276	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	19	15		431.37	368.39	62.98
248526001-1	RE36-10-8466	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-FEB-10	10	20	16		606.80	531.56	75.24
1202068228-1	MB for batch 964063	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	21	17		20.00	0.00	20.00
1202068229-1	RE36-10-8466(248526001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	25-FEB-10	10	22	16		606.80	531.56	75.24
1202068230-1	LCS for batch 964063	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	23	18		20.00	0.00	20.00

Bkg Rack #: 4

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 3-30-10

GEL Laboratories LLC, Radiochemistry Division

DATE	3/29/2010	INITIALS	KXK2	BATCH NUMBER	964063

Sample #	Flask (g)	Sample Wet (g)	Flask and Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	Flask and Sample Dry (g)	mLs aliquoted into LSC vial
248515001	200	290.91	490.91	0.240	69.82	221.09	421.09	10
248515002	200	227.84	427.84	0.160	36.45	191.39	391.39	10
248515003	200	385.82	585.82	0.201	77.55	308.27	508.27	10
248517001	200	171.72	371.72	0.221	37.95	133.77	333.77	10
248521001	200	305.80	505.80	0.164	50.15	255.65	455.65	10
248521002	200	309.69	509.69	0.071	21.99	287.70	487.70	10
248521003	200	406.14	606.14	0.254	103.16	302.98	502.98	10
248521004	200	384.86	584.86	0.095	36.56	348.30	548.30	10
248521005	200	447.75	647.75	0.064	28.66	419.09	619.09	10
248521006	200	500.95	700.95	0.102	51.10	449.85	649.85	10
248521007	200	252.51	452.51	0.289	72.98	179.53	379.53	10
248521008	200	405.46	605.46	0.329	133.40	272.06	472.06	10
248521009	200	242.34	442.34	0.290	70.28	172.06	372.06	10
248521010	200	167.25	367.25	0.402	67.23	100.02	300.02	10
248521011	200	431.37	631.37	0.146	62.98	368.39	568.39	10
248526001	200	606.80	806.80	0.124	75.24	531.56	731.56	10
MB	200	20.00	220.00	1.000	20.00	0.00	200.00	10
DUP	200	606.80	806.80	0.124	75.24	531.56	731.56	10
LCS	200	20.00	220.00	1.000	20.00	0.00	200.00	10

T964063

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.7

Batch : 964063
Analyst : KXK2
Prep Date : 3/26/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/11/2011
LCS Activity (dpm/ml): 2451.91
LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	248515001.1	290.91	0.0698	0.0100	2.5729E-05	221.09	24.00%	1	2/25/2010 12:00
2	248515002.1	227.84	0.0365	0.0100	2.5729E-05	191.39	16.00%	2	2/25/2010 12:00
3	248515003.1	385.82	0.0776	0.0100	2.5729E-05	308.27	20.10%	3	2/25/2010 12:00
4	248517001.1	171.72	0.0380	0.0100	2.5729E-05	133.77	22.10%	4	2/25/2010 12:00
5	248521001.1	305.80	0.0502	0.0100	2.5729E-05	255.65	16.40%	5	2/25/2010 12:00
6	248521002.1	309.69	0.0220	0.0100	2.5729E-05	287.70	7.10%	6	2/25/2010 12:00
7	248521003.1	406.14	0.1032	0.0100	2.5729E-05	302.98	25.40%	7	2/25/2010 12:00
8	248521004.1	384.86	0.0366	0.0100	2.5729E-05	348.30	9.50%	8	2/25/2010 12:00
9	248521005.1	447.75	0.0287	0.0100	2.5729E-05	419.09	6.40%	9	2/25/2010 12:00
10	248521006.1	500.95	0.0511	0.0100	2.5729E-05	449.85	10.20%	10	2/25/2010 12:00
11	248521007.1	252.51	0.0730	0.0100	2.5729E-05	179.53	28.90%	11	2/25/2010 12:00
12	248521008.1	405.46	0.1334	0.0100	2.5729E-05	272.06	32.90%	12	2/25/2010 12:00
13	248521009.1	242.34	0.0703	0.0100	2.5729E-05	172.06	29.00%	13	2/25/2010 12:00
14	248521010.1	167.25	0.0672	0.0100	2.5729E-05	100.02	40.20%	14	2/25/2010 12:00
15	248521011.1	431.37	0.0630	0.0100	2.5729E-05	368.39	14.60%	15	2/25/2010 12:00
16	248526001.1	606.80	0.0752	0.0100	2.5729E-05	531.56	12.40%	16	2/25/2010 12:00
17	1202068228.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	17	3/26/2010 0:00
18	1202068229.1	606.80	0.0752	0.0100	2.5729E-05	531.56	12.40%	16	2/25/2010 12:00
19	1202068230.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	18	3/26/2010 0:00

Analytical SOP: GL-RAD-A-002
Instrument SOP: GL-RAD-I-017

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	5	50.0298	805.32	1.11	1.14	120	3/29/2010 14:07	0.995	LSCPINK	8/21/2009	8/31/2010	0.1690	0.00792	4	3/29/2010 12:05
2	6	50.0298	806.43	1.21	1.14	120	3/29/2010 15:00	0.995	LSCPINK	8/21/2009	8/31/2010	0.1702	0.00792	4	3/29/2010 12:05
3	7	50.0298	806.56	1.03	1.14	120	3/29/2010 15:53	0.995	LSCPINK	8/21/2009	8/31/2010	0.1703	0.00792	4	3/29/2010 12:05
4	8	50.0298	808.02	1.31	1.14	120	3/29/2010 16:45	0.995	LSCPINK	8/21/2009	8/31/2010	0.1717	0.00792	4	3/29/2010 12:05
5	9	50.0298	807.39	1.01	1.14	120	3/29/2010 17:38	0.995	LSCPINK	8/21/2009	8/31/2010	0.1711	0.00792	4	3/29/2010 12:05
6	10	50.0298	804.89	1.61	1.14	120	3/29/2010 18:30	0.995	LSCPINK	8/21/2009	8/31/2010	0.1686	0.00792	4	3/29/2010 12:05
7	11	50.0297	804.82	0.99	1.14	120	3/29/2010 19:23	0.995	LSCPINK	8/21/2009	8/31/2010	0.1685	0.00792	4	3/29/2010 12:05
8	12	50.0297	805.23	1.09	1.14	120	3/29/2010 20:15	0.995	LSCPINK	8/21/2009	8/31/2010	0.1690	0.00792	4	3/29/2010 12:05
9	13	50.0297	806.27	1.05	1.14	120	3/29/2010 21:08	0.995	LSCPINK	8/21/2009	8/31/2010	0.1700	0.00792	4	3/29/2010 12:05
10	14	50.0297	806.41	1.03	1.14	120	3/29/2010 22:00	0.995	LSCPINK	8/21/2009	8/31/2010	0.1701	0.00792	4	3/29/2010 12:05
11	15	50.0297	805.72	0.76	1.14	120	3/29/2010 22:53	0.995	LSCPINK	8/21/2009	8/31/2010	0.1695	0.00792	4	3/29/2010 12:05
12	16	50.0297	804.12	0.78	1.14	120	3/29/2010 23:45	0.995	LSCPINK	8/21/2009	8/31/2010	0.1678	0.00792	4	3/29/2010 12:05
13	17	50.0298	804.4	0.99	1.14	120	3/30/2010 1:53	0.995	LSCPINK	8/21/2009	8/31/2010	0.1681	0.00792	4	3/29/2010 12:05
14	18	50.0298	807.57	0.97	1.14	120	3/30/2010 2:46	0.995	LSCPINK	8/21/2009	8/31/2010	0.1713	0.00792	4	3/29/2010 12:05
15	19	50.0298	806.26	0.89	1.14	120	3/30/2010 3:38	0.995	LSCPINK	8/21/2009	8/31/2010	0.1700	0.00792	4	3/29/2010 12:05
16	20	50.0296	804.58	0.78	1.14	120	3/30/2010 4:31	0.995	LSCPINK	8/21/2009	8/31/2010	0.1683	0.00792	4	3/29/2010 12:05
17	21	50.0298	806.03	0.85	1.14	120	3/30/2010 5:24	0.999	LSCPINK	8/21/2009	8/31/2010	0.1698	0.00792	4	3/29/2010 12:05
18	22	50.0298	805.34	0.95	1.14	120	3/30/2010 6:17	0.995	LSCPINK	8/21/2009	8/31/2010	0.1691	0.00792	4	3/29/2010 12:05
19	23	15.0296	806.36	24.93	1.14	120	3/30/2010 7:09	0.999	LSCPINK	8/21/2009	8/31/2010	0.1701	0.00792	4	3/29/2010 12:05

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202068229.1

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	112.1098	79.1505	250	174.3588	**-8.0337**	5.933	-0.030	0.178	47.6669	47.6683		SAMPLE				
2	111.3728	78.6302	250	173.2126	**18.6220**	2.622	0.070	0.184	48.8243	48.8415		SAMPLE				
3	111.2885	78.5706	250	173.0815	**-29.2410**	1.577	-0.110	0.173	46.1082	46.1097		SAMPLE				
4	110.3560	77.9123	250	171.6312	**44.8121**	1.111	0.170	0.189	49.7933	49.8910		SAMPLE				
5	110.7546	78.1937	250	172.2511	**-34.3918**	1.325	-0.130	0.172	45.5811	45.5826		SAMPLE				
6	112.4047	79.3587	250	174.8174	**126.1921**	0.434	0.470	0.204	54.8139	55.5140		SAMPLE				
7	112.4532	79.3929	250	174.8928	**-40.2914**	1.141	-0.150	0.171	45.9675	45.9690		SAMPLE				
8	112.1750	79.1965	250	174.4602	**-13.3973**	3.538	-0.050	0.177	47.3928	47.3942		SAMPLE				
9	111.4822	78.7074	250	173.3827	**-23.9661**	1.940	-0.090	0.175	46.4943	46.4958		SAMPLE				
10	111.3909	78.6430	250	173.2407	**-29.2679**	1.577	-0.110	0.173	46.1506	46.1521		SAMPLE				
11	111.8478	78.9655	250	173.9512	**-101.5221**	0.414	-0.380	0.157	41.9784	41.9800		SAMPLE				
12	112.9393	79.7361	250	175.6489	**-97.1175**	0.440	-0.360	0.158	42.7298	42.7315		SAMPLE				
13	112.7466	79.6001	250	175.3492	**-40.3966**	1.141	-0.150	0.171	46.0874	46.0889		SAMPLE				
14	110.6467	78.1175	250	172.0832	**-44.9301**	1.000	-0.170	0.170	44.9193	44.9208		SAMPLE				
15	111.4934	78.7153	250	173.4001	**-66.5793**	0.661	-0.250	0.165	43.9924	43.9939		SAMPLE				
16	112.6245	79.5138	250	175.1592	**-96.8467**	0.440	-0.360	0.158	42.6107	42.6124		SAMPLE				
17	111.1573	78.4780	250	172.8774	**-76.9991**	0.561	-0.290	0.163	43.2124	43.2140		MB				
18	112.1080	79.1492	250	174.3559	**-50.8792**	0.888	-0.190	0.169	45.1965	45.1980	248526001.1	DUP	0.0%	0.2617		
19	180.3838	127.3525	250	307.6005	**6304.3427**	0.055	23.790	1.292	342.2726	556.7256		LCS			5522.3133	114.2%

REGISTRY

MON 29 MAR 2010 12:03

*** DIRECTORY PATH :S:\LSC\Q\DA\964063A0 ***

PARAMETER GROUP: 8
ID: H-3(3)

00A PROGRAM MODE 6 ->

ORDER	POS	ID	CTIME	COUNTS	CUCNTS	MCW	REP	STD	STMS	STIME
1	4	BKG	120:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
2	5	248515001	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
3	6	248515002	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
4	7	248515003	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
5	8	248517001	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
6	9	248521001	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
7	10	248521002	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
8	11	248521003	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
9	12	248521004	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
10	13	248521005	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
11	14	248521006	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
12	15	248521007	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
13	16	248521008	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00

NUMBER OF CYCLES 1
COINCIDENCE BIAS (L/H) L

MCA	INPUT	TRIGG.	INHIBIT	MEMORY SPLIT
1	LRSUM	DCOS	G	L*R
2	GSUM	G		L*R

WINDOW	CHANNELS	MCA	HALF
1	1- 174	1	2
2	1- 174	1	2
3	60- 220	1	2
4	50- 320	1	1
5	50- 270	1	1
6	60- 220	1	1
7	1- 1024	2	1
8	1- 1024	2	2

SELECTED PRINTOUT FOR TERMINAL 1 (A)

SELECTED PRINTOUT FOR TERMINAL 2 (B)

1.	2.	3.	4.	5.	6.	7.
POS	ID	CTIME	SQP	CPM1	CPM2	CPM3

SEND SPECTRA 12
RESOLUTION OF SPECTRA 1024
LISTING Y
INSTRUMENT NUMBER 1

POS	ID	CTIME	SQP	CPM1	CPM2	CPM3
Q010401N.001 29 MAR 2010 14:06						
4	BKG	120:01.785	810.26	1.14	1.14	1.30

Q020501N.001 29 MAR 2010 14:58						
5	248515001	50:01.785	805.32	1.11	1.11	1.43
Q030601N.001 29 MAR 2010 15:51						
6	248515002	50:01.785	806.43	1.21	1.21	1.35
Q040701N.001 29 MAR 2010 16:44						
7	248515003	50:01.785	806.56	1.03	1.03	1.41
Q050801N.001 29 MAR 2010 17:36						
8	248517001	50:01.785	808.02	1.31	1.31	1.72
Q060901N.001 29 MAR 2010 18:29						
9	248521001	50:01.785	807.39	1.01	1.01	1.35
Q071001N.001 29 MAR 2010 19:21						
10	248521002	50:01.785	804.89	1.61	1.61	1.72
Q081101N.001 29 MAR 2010 20:14						
11	248521003	50:01.784	804.82	.99	.99	1.25
Q091201N.001 29 MAR 2010 21:06						
12	248521004	50:01.784	805.23	1.09	1.09	1.43
Q101301N.001 29 MAR 2010 21:59						
13	248521005	50:01.784	806.27	1.05	1.05	1.37
Q111401N.001 29 MAR 2010 22:51						
14	248521006	50:01.784	806.41	1.03	1.03	1.23
Q121501N.001 29 MAR 2010 23:44						
15	248521007	50:01.784	805.72	.76	.76	1.15
Q131601N.001 30 MAR 2010 0:36						
16	248521008	50:01.784	804.12	.78	.78	1.11

REGISTRY

TUE 30 MAR 2010 1:52

*** DIRECTORY PATH :S:\LSC\Q\DA\964063A1 ***

PARAMETER GROUP: 8
ID: H-3(4)

00A PROGRAM MODE 6 ->

ORDER	POS	ID	CTIME	COUNTS	CUCNTS	MCW	REP	STD	STMS	STIME
1	17	248521009	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
2	18	248521010	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
3	19	248521011	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
4	20	248526001	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
5	21	1202068228	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
6	22	1202068229	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
7	23	1202068230	15:00	1.0E04	NO LIM	1	1	Y	1/10	1:00

NUMBER OF CYCLES 1
COINCIDENCE BIAS (L/H) L

MCA	INPUT	TRIGG.	INHIBIT	MEMORY SPLIT
1	LRSUM	DCOS	G	L*R
2	GSUM	G		L*R

WINDOW	CHANNELS	MCA	HALF
1	1- 174	1	2
2	1- 174	1	2
3	60- 220	1	2
4	50- 320	1	1
5	50- 270	1	1
6	60- 220	1	1
7	1- 1024	2	1
8	1- 1024	2	2

SELECTED PRINTOUT FOR TERMINAL 1 (A)

SELECTED PRINTOUT FOR TERMINAL 2 (B)

1.	2.	3.	4.	5.	6.	7.
POS	ID	CTIME	SQP	CPM1	CPM2	CPM3

SEND SPECTRA 12
RESOLUTION OF SPECTRA 1024
LISTING Y
INSTRUMENT NUMBER 1

POS	ID	CTIME	SQP	CPM1	CPM2	CPM3
Q011701N.001 30 MAR 2010 2:44						
17	248521009	50:01.785	804.40	.99	.99	1.31
Q021801N.001 30 MAR 2010 3:37						
18	248521010	50:01.785	807.57	.97	.97	1.21
Q031901N.001 30 MAR 2010 4:29						
19	248521011	50:01.785	806.26	.89	.89	1.17
Q042001N.001 30 MAR 2010 5:22						
20	248526001	50:01.778	804.58	.78	.78	1.07

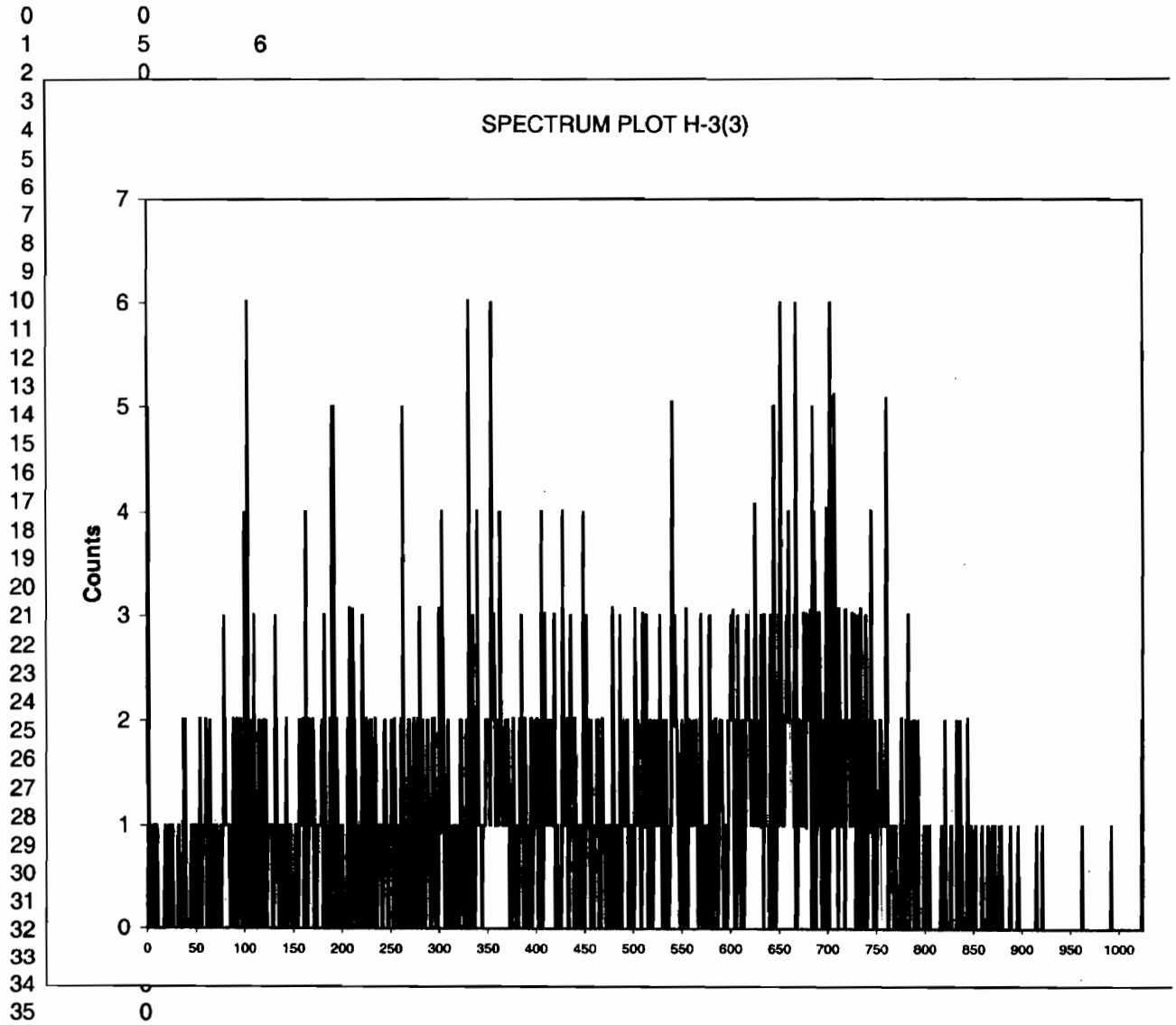
Q052101N.001 30 MAR 2010 6:15						
21	1202068228	50:01.785	806.03	.85	.85	1.27
Q062201N.001 30 MAR 2010 7:08						
22	1202068229	50:01.785	805.34	.95	.95	1.35
Q072301N.001 30 MAR 2010 7:25						
23	1202068230	15:01.778	806.36	24.93	24.93	27.62

Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
FileName:	s:\lsc\files\pink\964063A0\SQ010401N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls

ID:	H-3(3)
Comments:	PINK

Sample, Rack-Pos, Time:	1, BKG, 120.0297:
Quench:	810.26
Start, End, X-Axis	1-174

Channel Counts



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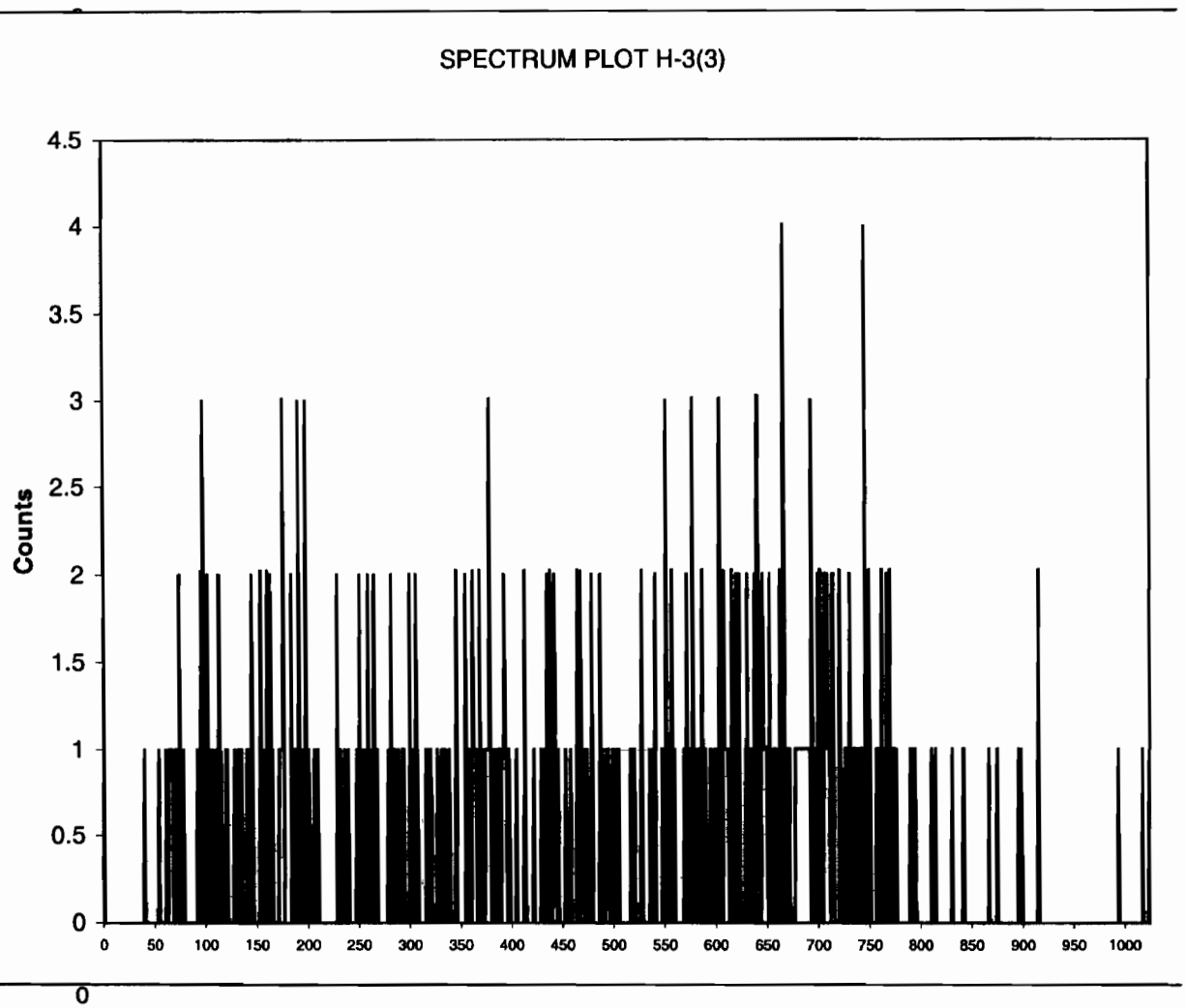
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls

ID:	H-3(3)
Comments:	PINK

Sample, Rack-Pos, Time:	2, 248515001, 50.02975:
Quench:	805.32
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	1
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
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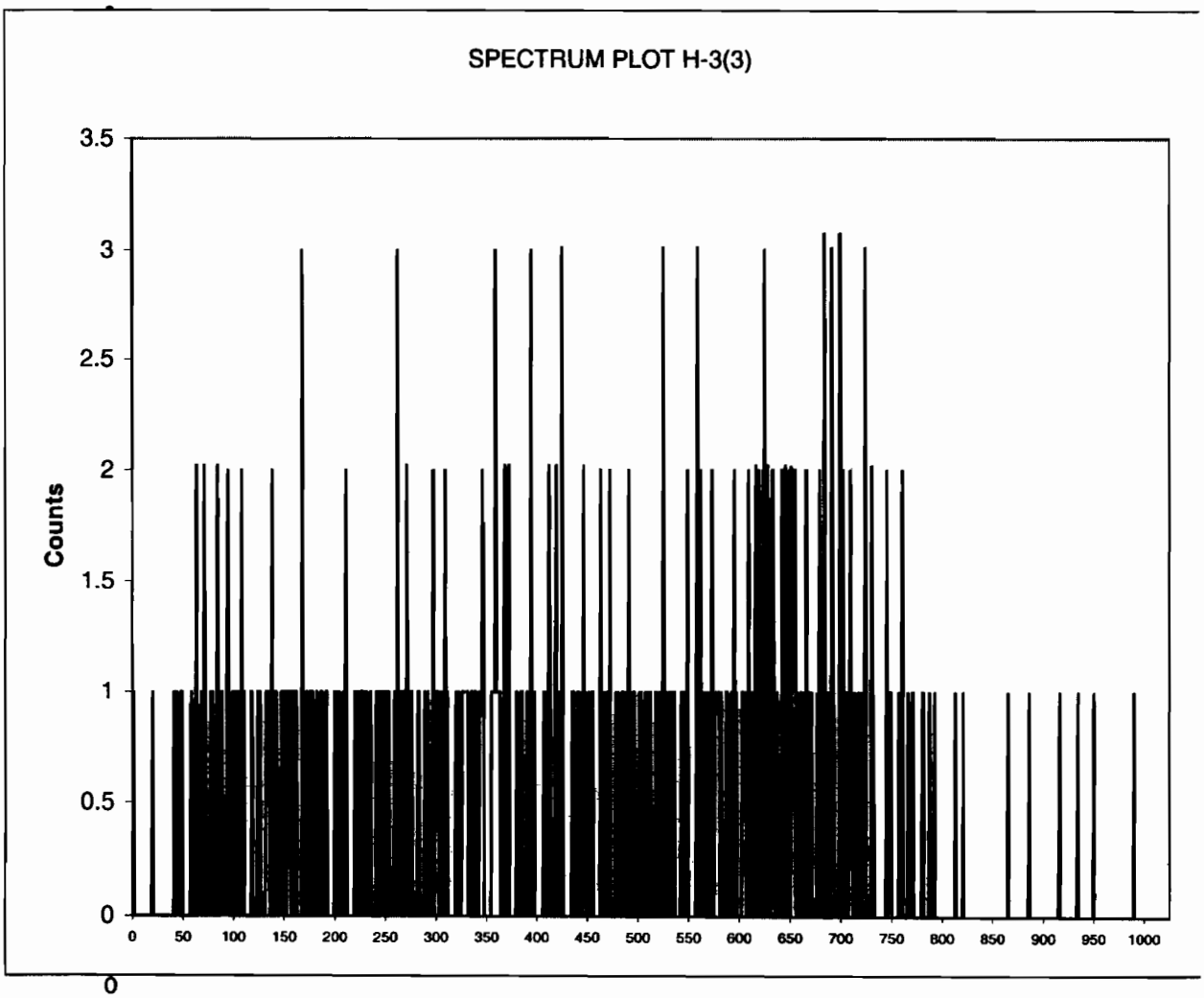
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls

ID:	H-3(3)
Comments:	PINK

Sample, Rack-Pos, Time:	3, 248515002, 50.02975:
Quench:	806.43
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	1
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
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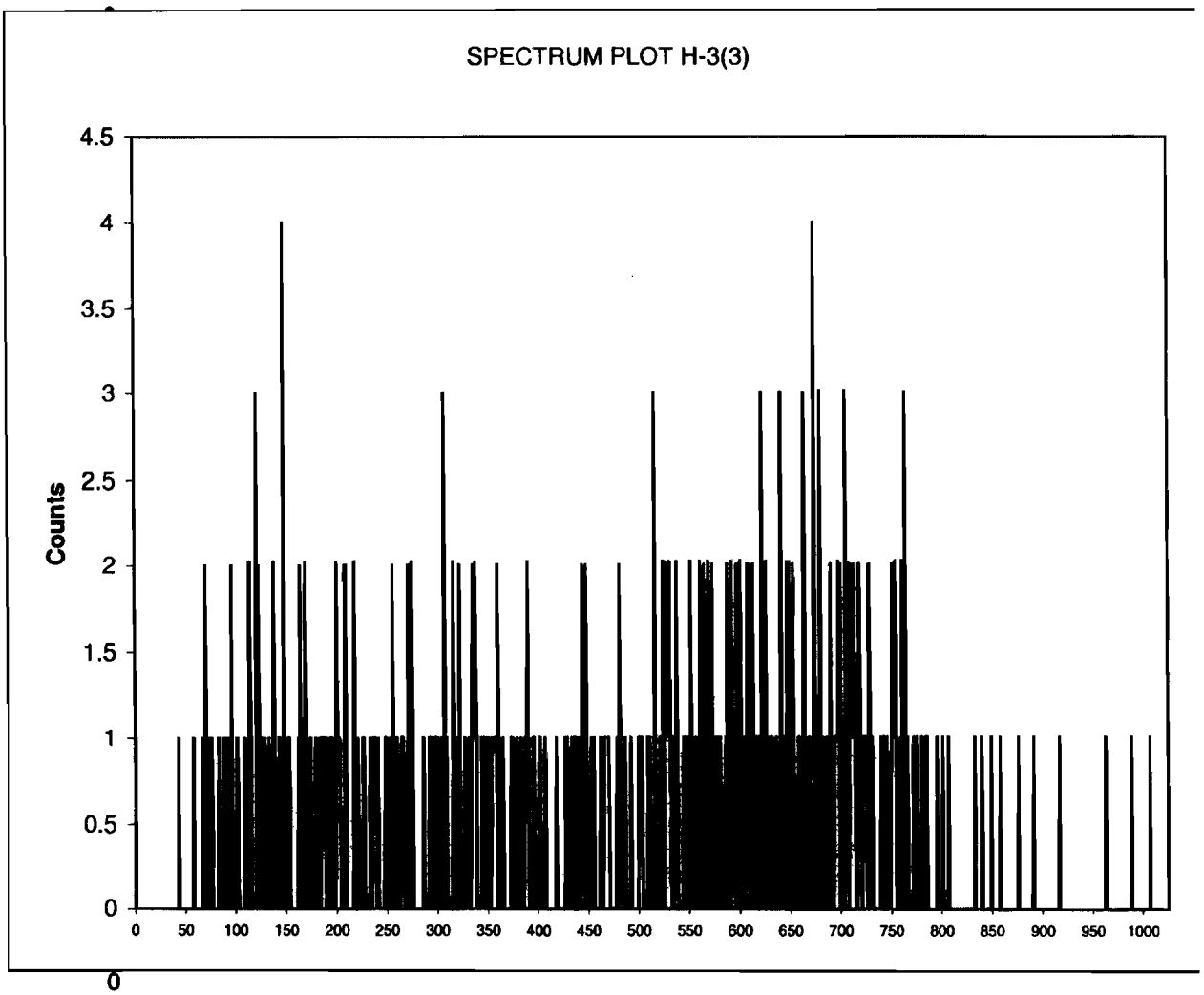
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls

ID:	H-3(3)
Comments:	PINK

Sample, Rack-Pos, Time:	4, 248515003, 50.02975:
Quench:	806.56
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	1
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	0
35	0



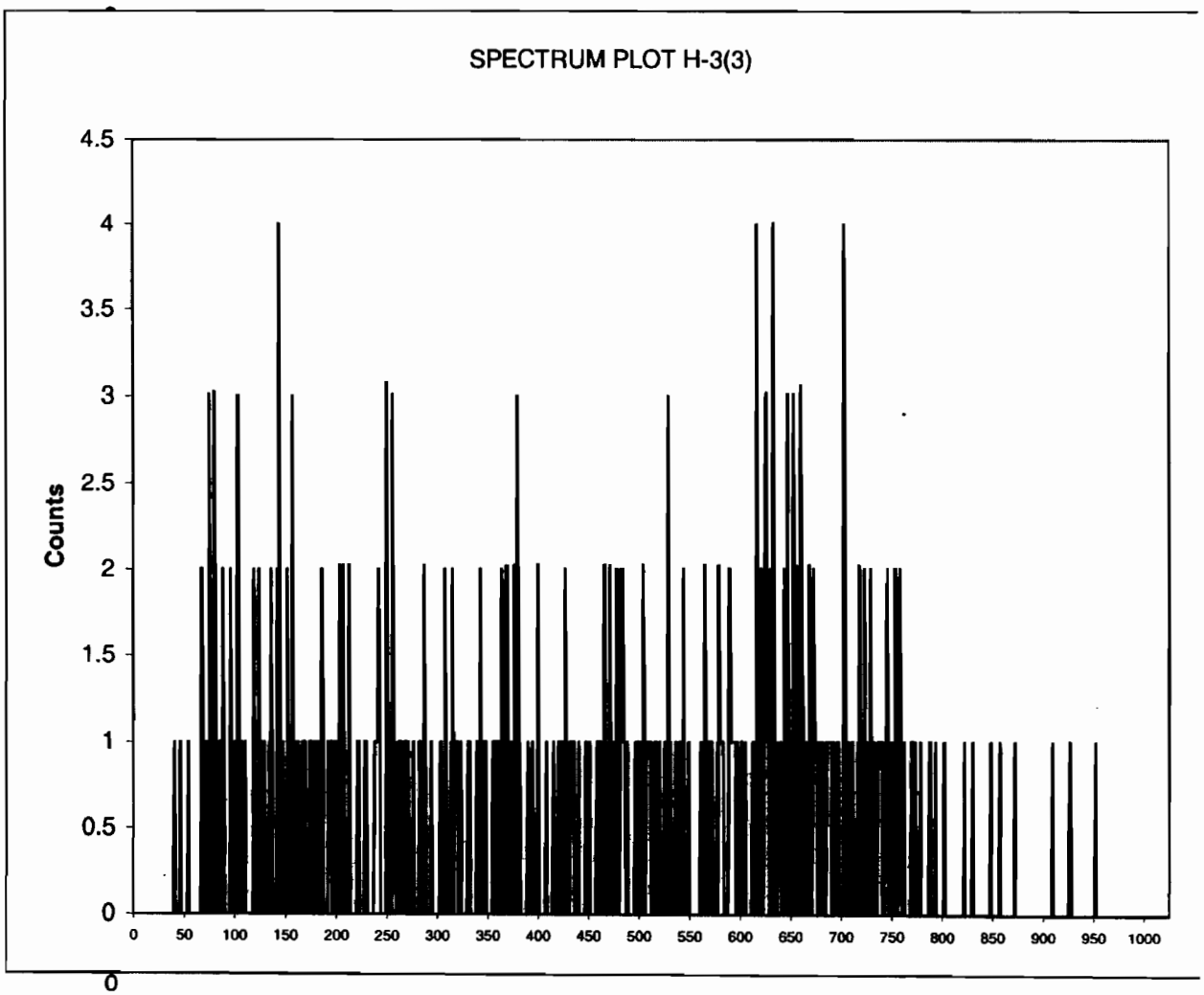
Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
FileName:	s:\lsc\files\pink\964063A0\SQ050801N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls

ID:	H-3(3)
Comments:	PINK

Sample, Rack-Pos, Time:	5, 248517001, 50.02975:
Quench:	808.02
Start, End, X-Axis	1-174

Channel Counts

Channel	Counts
0	0
1	0
2	4
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
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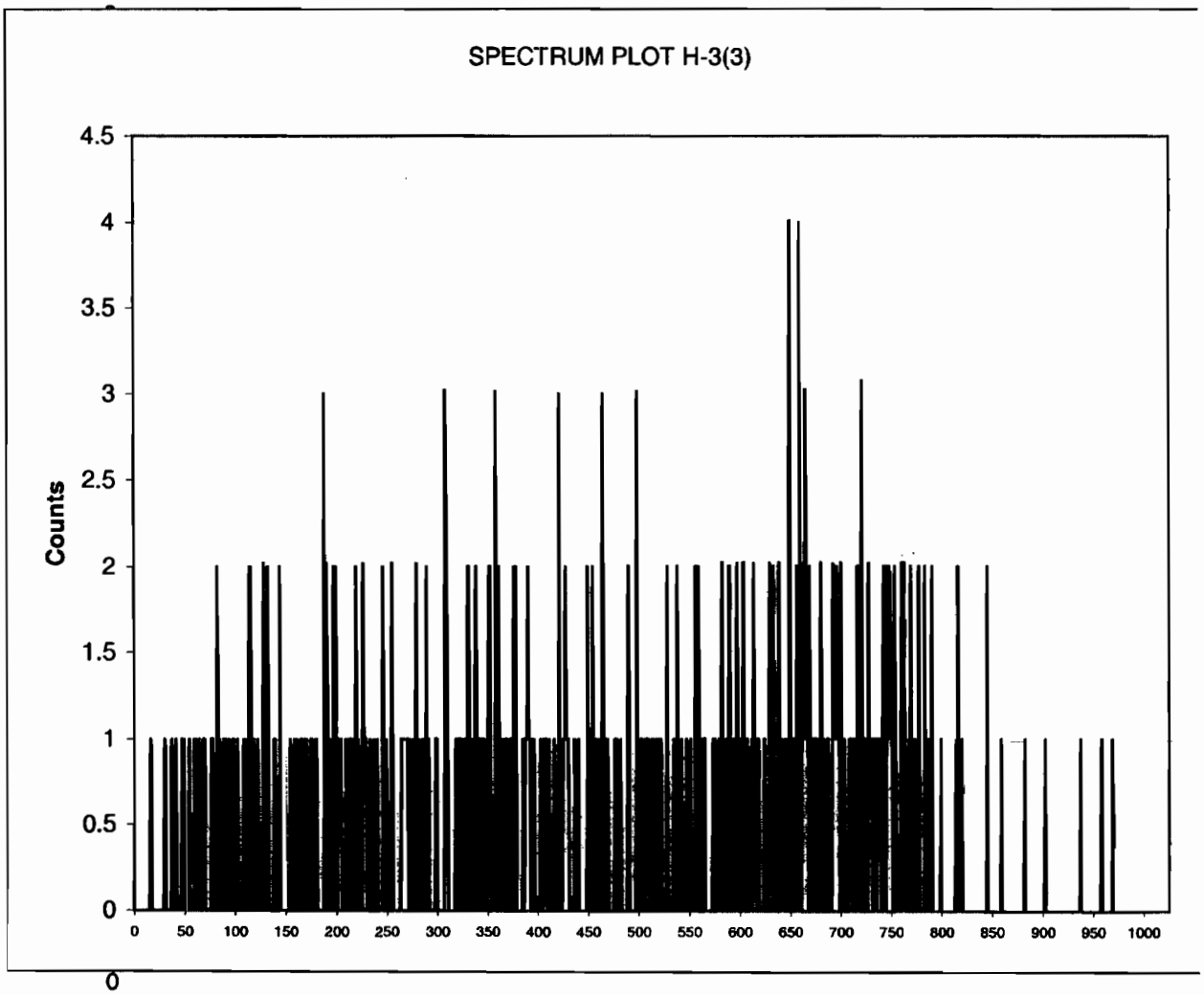
FileName:	s:\lsc\files\pink\964063A0\SQ060901N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls
ID:	H-3(3)
Comments:	PINK
Sample, Rack-Pos, Time:	6, 248521001, 50.02975:
Quench:	807.39
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
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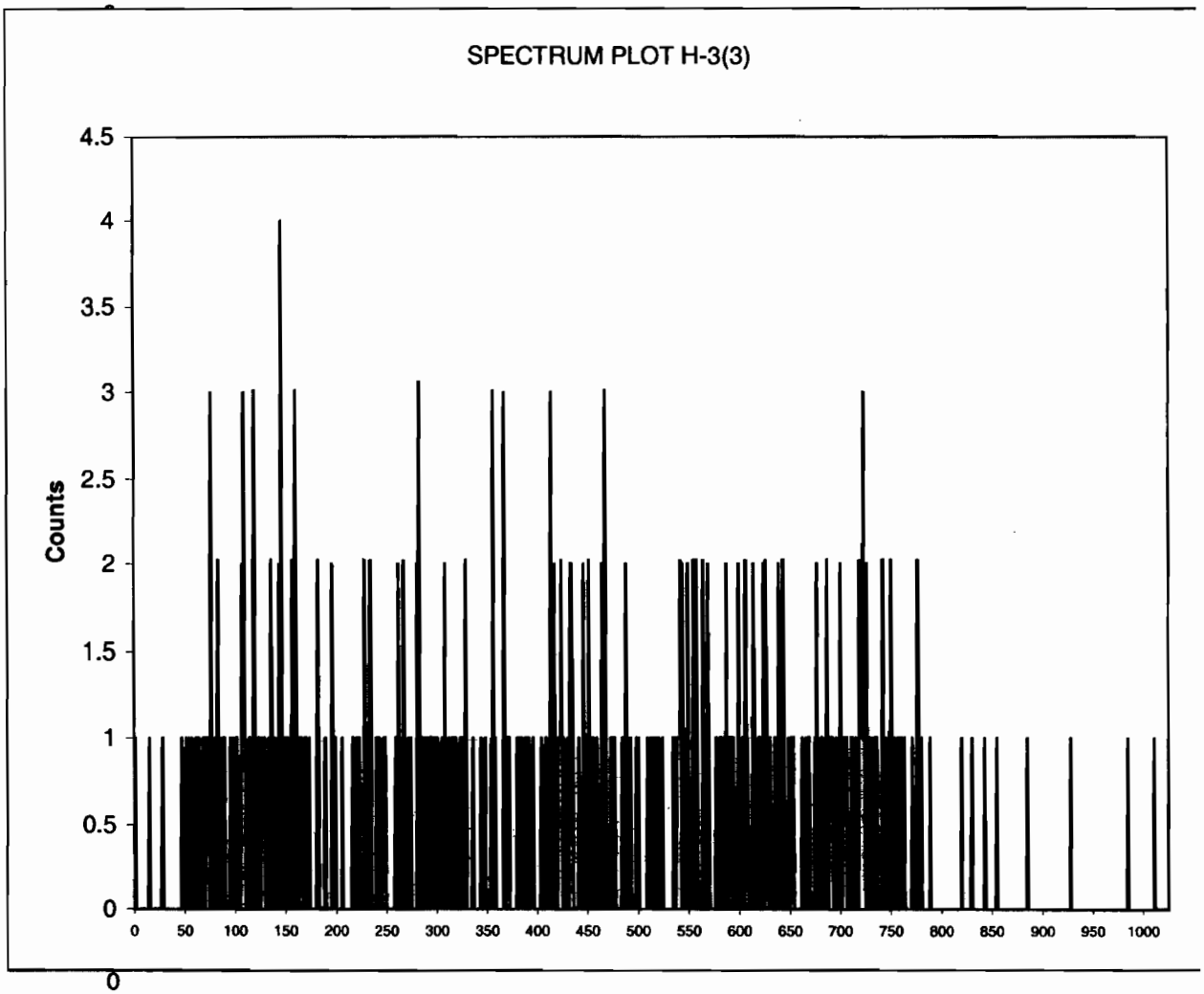
FileName:	s:\lsc\files\pink\964063A0\SQ071001N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls

ID:	H-3(3)
Comments:	PINK

Sample, Rack-Pos, Time:	7, 248521002, 50.02975:
Quench:	804.89
Start, End, X-Axis	1-174

Channel Counts

Channel	Counts
0	0
1	1
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
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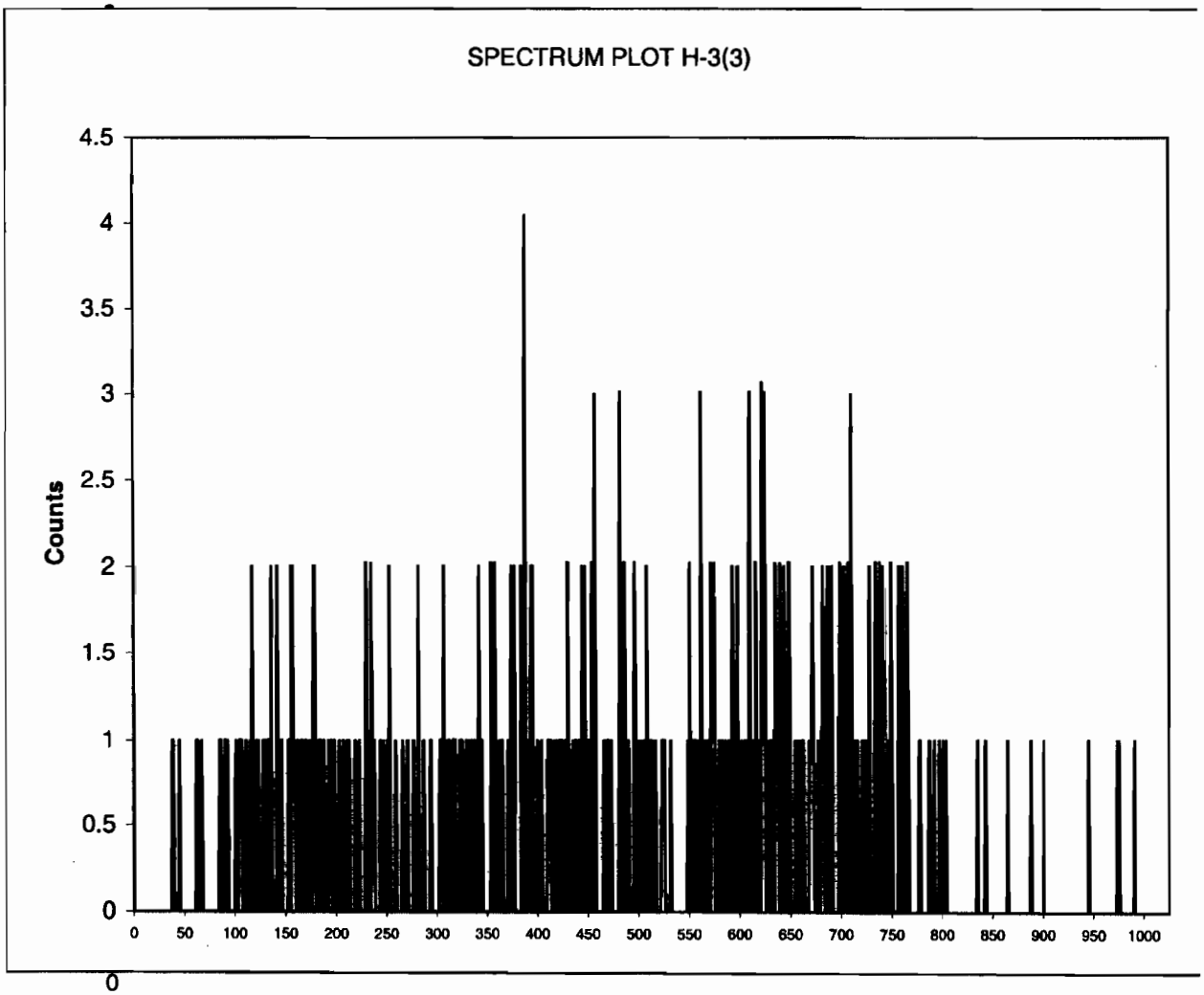
FileName:	s:\lsc\files\pink\964063A0\SQ081101N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls
ID:	H-3(3)
Comments:	PINK
Sample, Rack-Pos, Time:	8, 248521003, 50.02973:
Quench:	804.82
Start, End, X-Axis	1-174

Channel Counts

Channel	Counts
0	0
1	2
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
FileName:	s:\lsc\files\pink\964063A0\SQ091201N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls
ID:	H-3(3)
Comments:	PINK
Sample, Rack-Pos, Time:	9, 248521004, 50.02973:
Quench:	805.23
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
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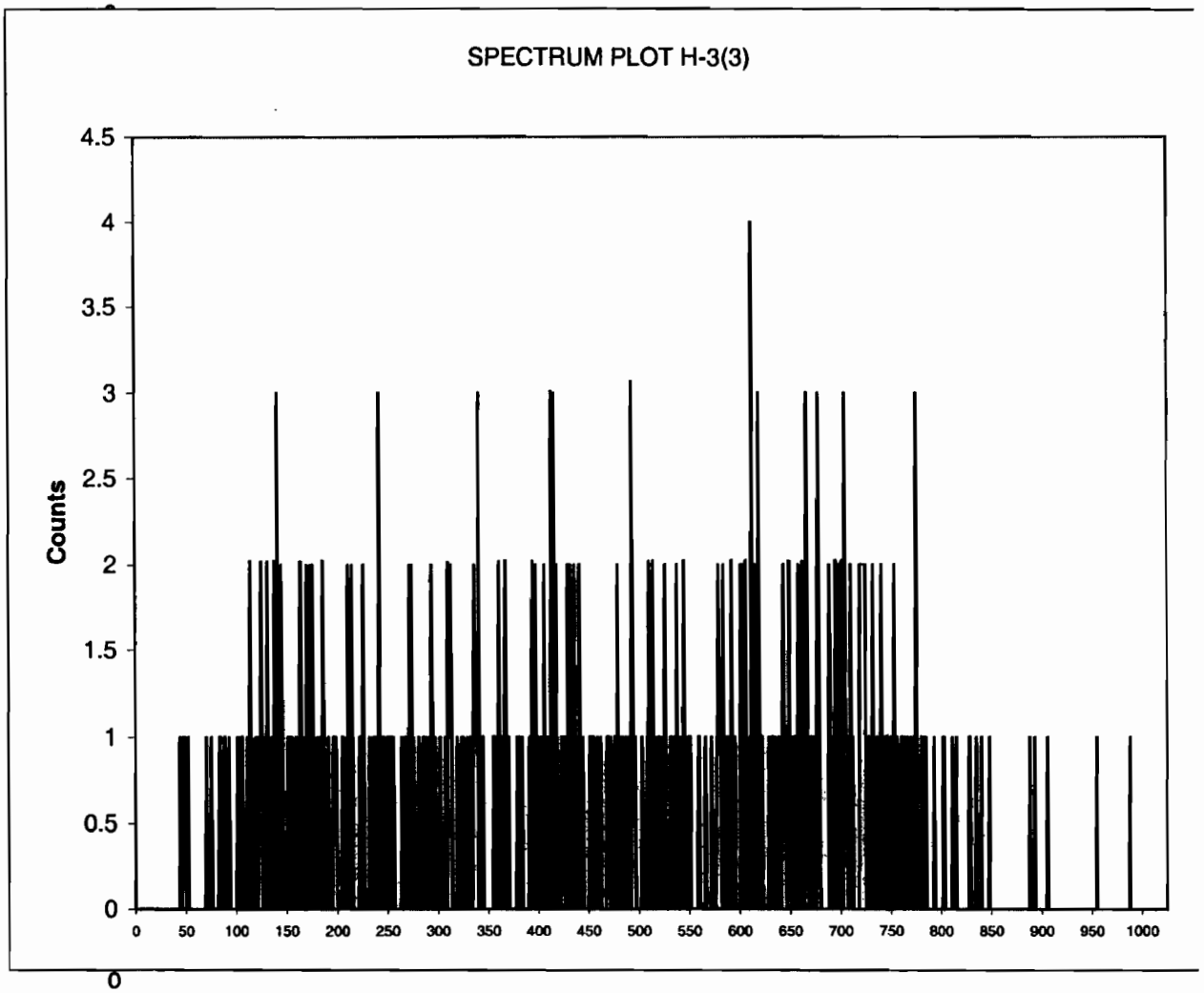
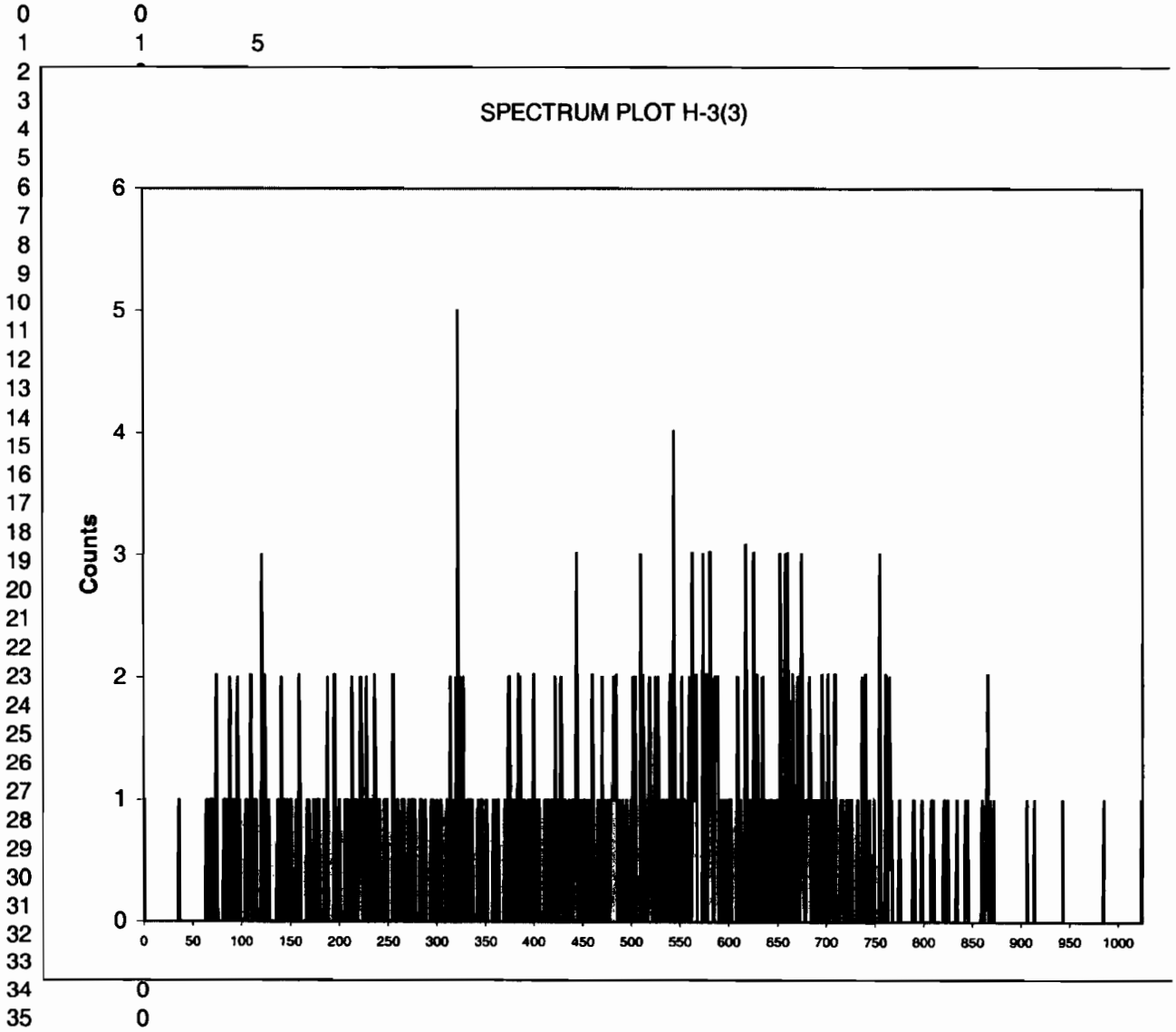
32	
33	
34	0
35	0



Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
FileName:	s:\lsc\files\pink\964063A0\SQ101301N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls
ID:	H-3(3)
Comments:	PINK
Sample, Rack-Pos, Time:	10, 248521005, 50.02973:
Quench:	806.27
Start, End, X-Axis	1-174

Channel Counts



Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
FileName:	s:\lsc\files\pink\964063A0\SQ111401N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls
ID:	H-3(3)
Comments:	PINK
Sample, Rack-Pos, Time:	11, 248521006, 50.02973:
Quench:	806.41
Start, End, X-Axis	1-174

Channel Counts

Channel	Counts
0	0
1	0
2	
3	
4	
5	
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28	
29	
30	
31	
32	
33	
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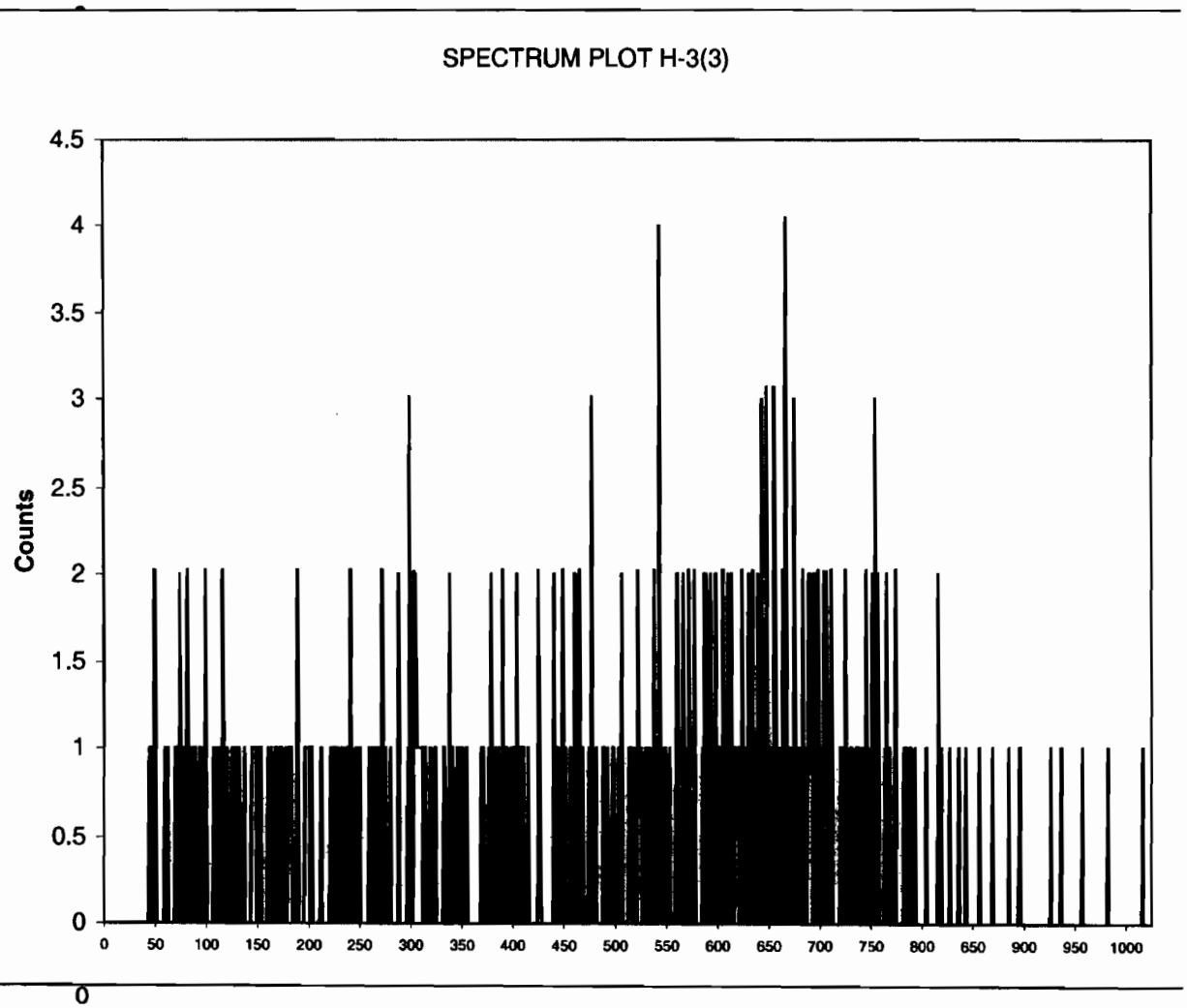
35	0



Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
FileName:	s:\lsc\files\pink\964063A0\SQ121501N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls
ID:	H-3(3)
Comments:	PINK
Sample, Rack-Pos, Time:	12, 248521007, 50.02973:
Quench:	805.72
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	
3	
4	
5	
6	
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29	
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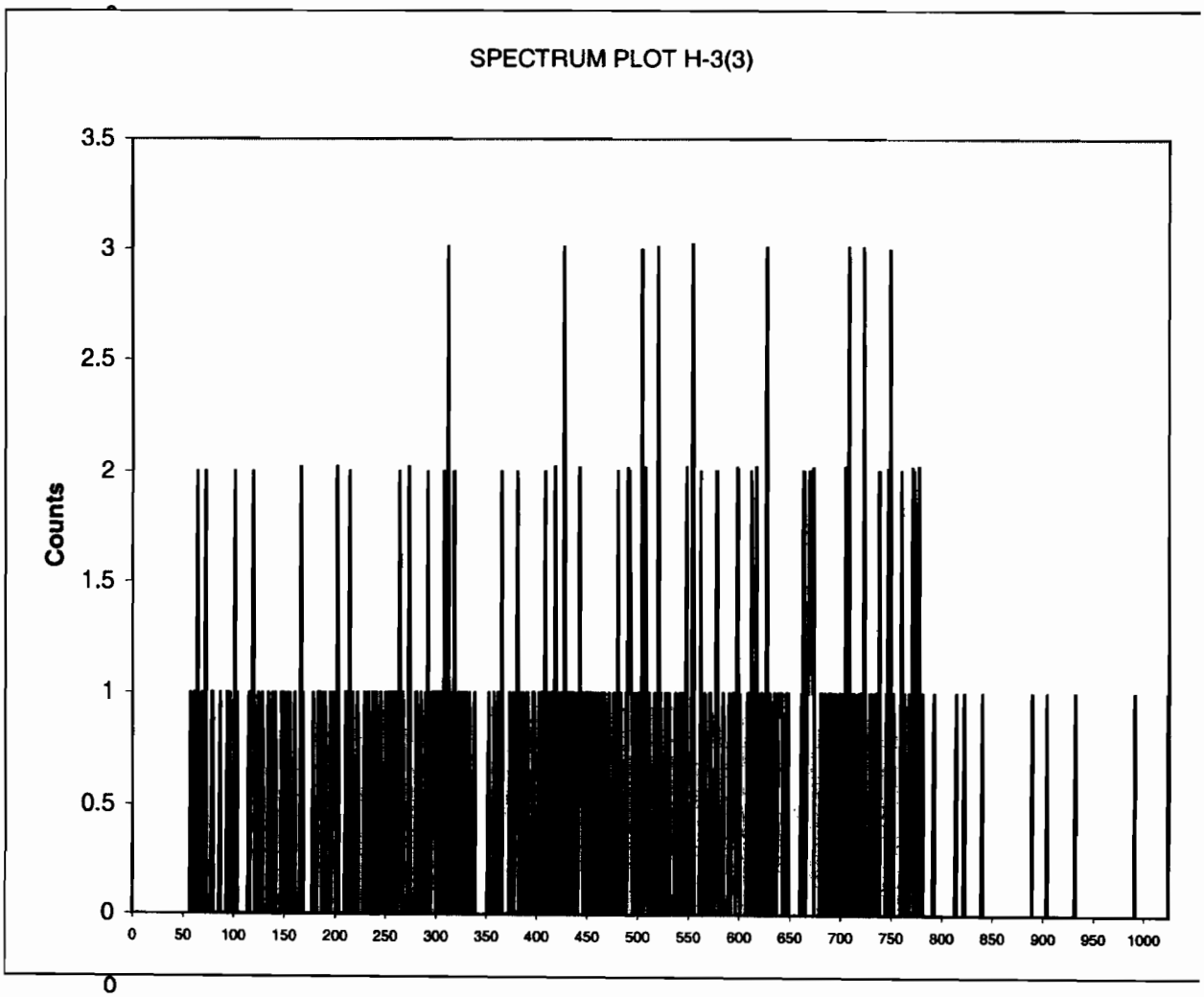
31	
32	
33	
34	0
35	0

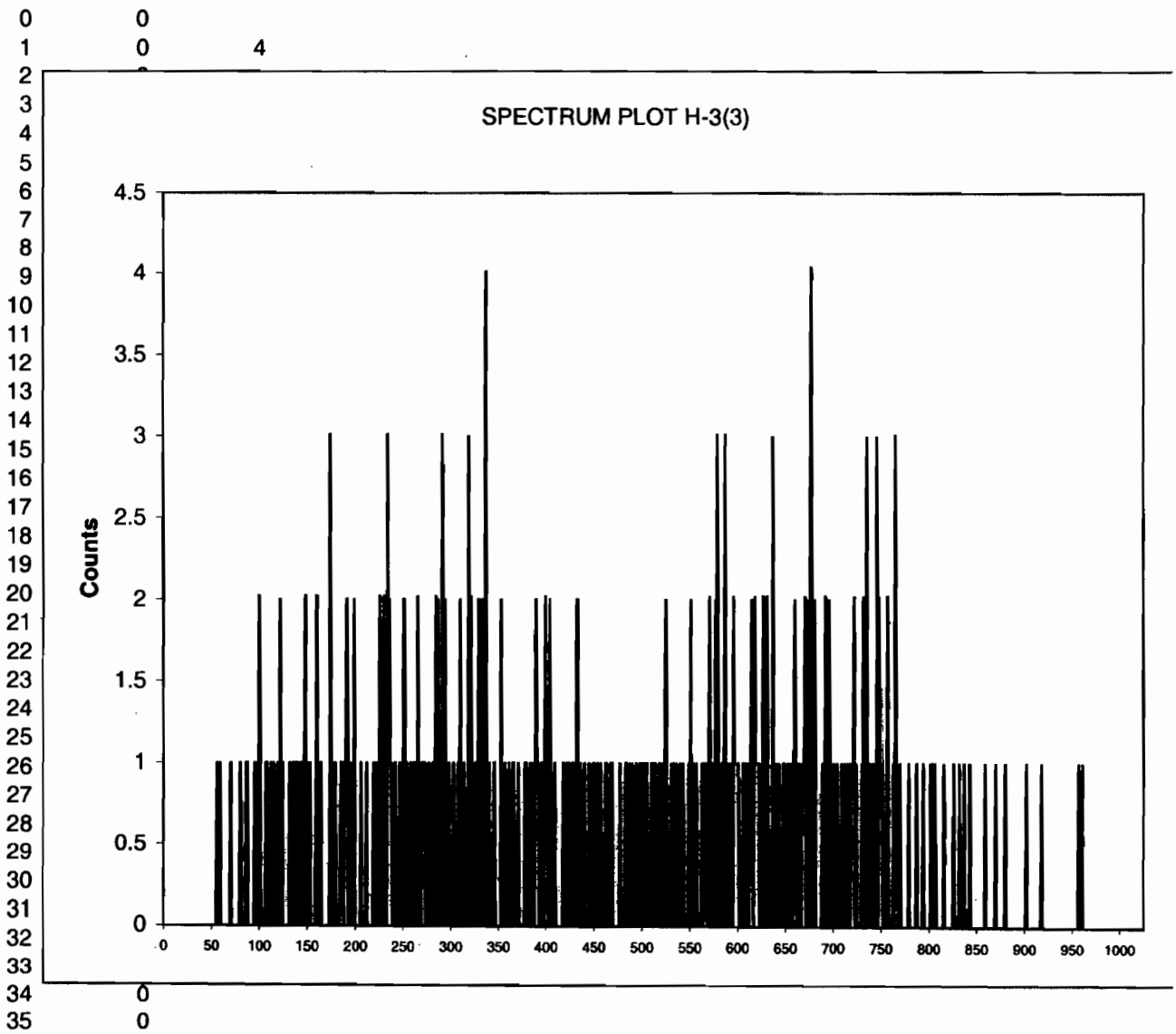


Instrument Type:	Quantulus
Data Capture Date:	MON 29 MAR 2010 12:03
FileName:	s:\lsc\files\pink\964063A0\SQ131601N.001.xls
File Info:	s:\lsc\files\pink\964063A0\U964063A0.xls

ID:	H-3(3)
Comments:	PINK

Sample, Rack-Pos, Time:	13, 248521008, 50.02973:
Quench:	804.12
Start, End, X-Axis	1-174

Channel Counts



Instrument Type:	Quantulus
Data Capture Date:	TUE 30 MAR 2010 1:52
FileName:	s:\lsc\files\pink\964063A1\SQ011701N.001.xls
File Info:	s:\lsc\files\pink\964063A1\U964063A1.xls
ID:	H-3(4)
Comments:	PINK
Sample, Rack-Pos, Time:	1, 248521009, 50.02975:
Quench:	804.4
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	1
2	0
3	
4	
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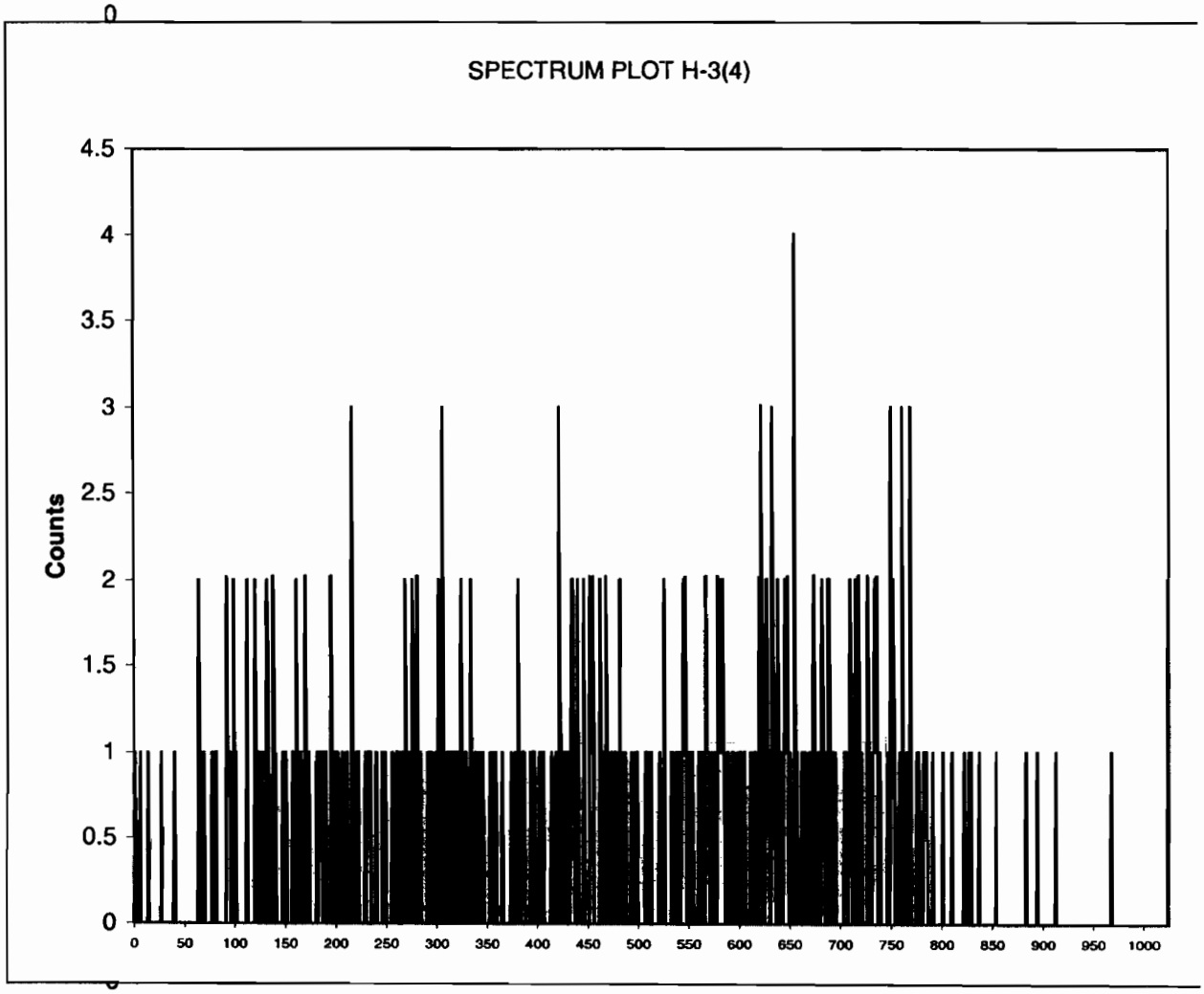
34	
35	0

4



Instrument Type:	Quantulus
Data Capture Date:	TUE 30 MAR 2010 1:52
FileName:	s:\lsc\files\pink\964063A1\SQ021801N.001.xls
File Info:	s:\lsc\files\pink\964063A1\U964063A1.xls

ID:	H-3(4)
Comments:	PINK

Sample, Rack-Pos, Time:	2, 248521010, 50.02975:
Quench:	807.57
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	
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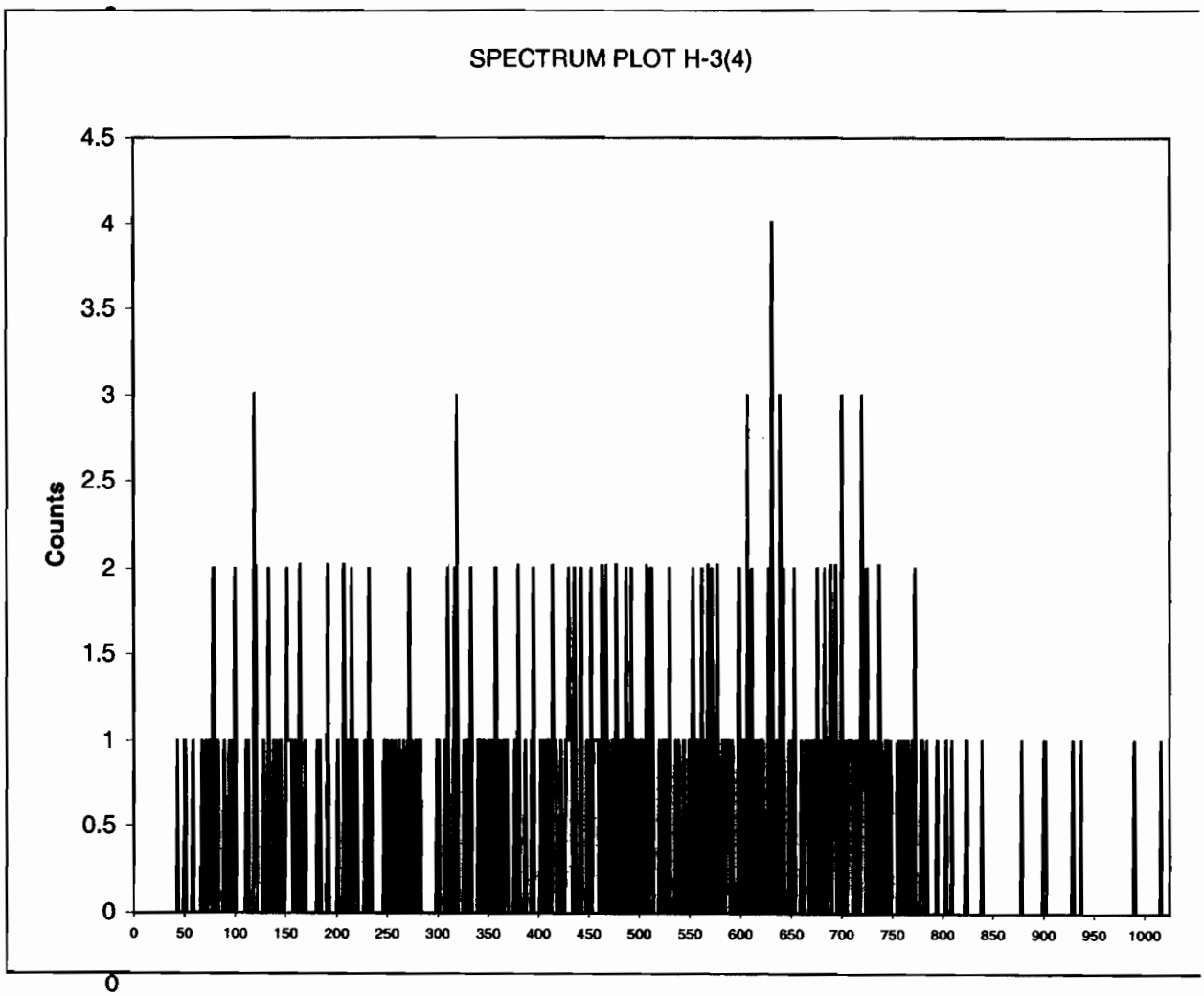
34	0
35	0



Instrument Type:	Quantulus
Data Capture Date:	TUE 30 MAR 2010 1:52
FileName:	s:\lsc\files\pink\964063A1\SQ031901N.001.xls
File Info:	s:\lsc\files\pink\964063A1\U964063A1.xls
ID:	H-3(4)
Comments:	PINK
Sample, Rack-Pos, Time:	3, 248521011, 50.02975:
Quench:	806.26
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	
3	
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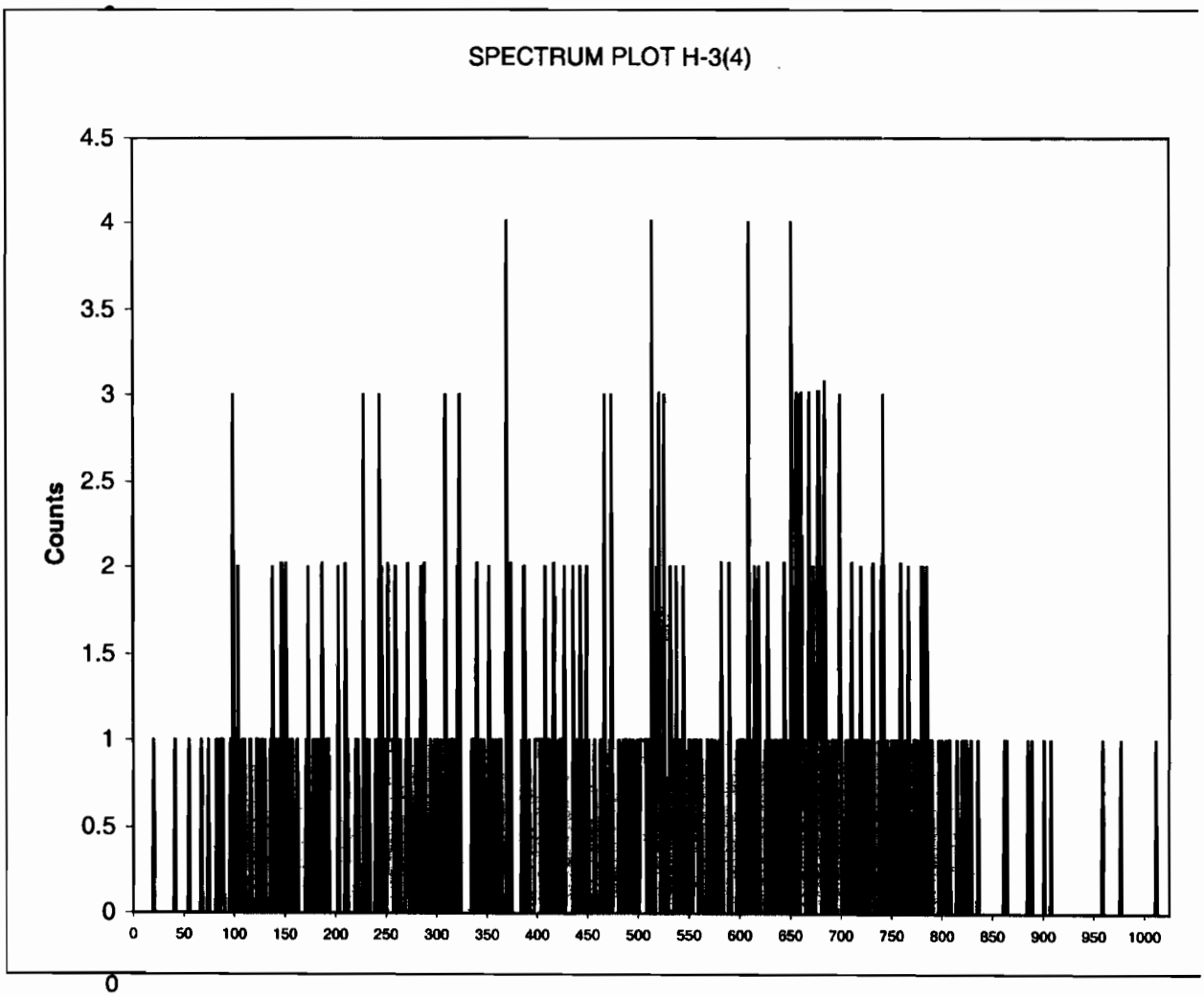
34	0
35	0



Instrument Type:	Quantulus
Data Capture Date:	TUE 30 MAR 2010 1:52
FileName:	s:\lsc\files\pink\964063A1\SQ042001N.001.xls
File Info:	s:\lsc\files\pink\964063A1\U964063A1.xls
ID:	H-3(4)
Comments:	PINK
Sample, Rack-Pos, Time:	4, 248526001, 50.02963:
Quench:	804.58
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	
3	
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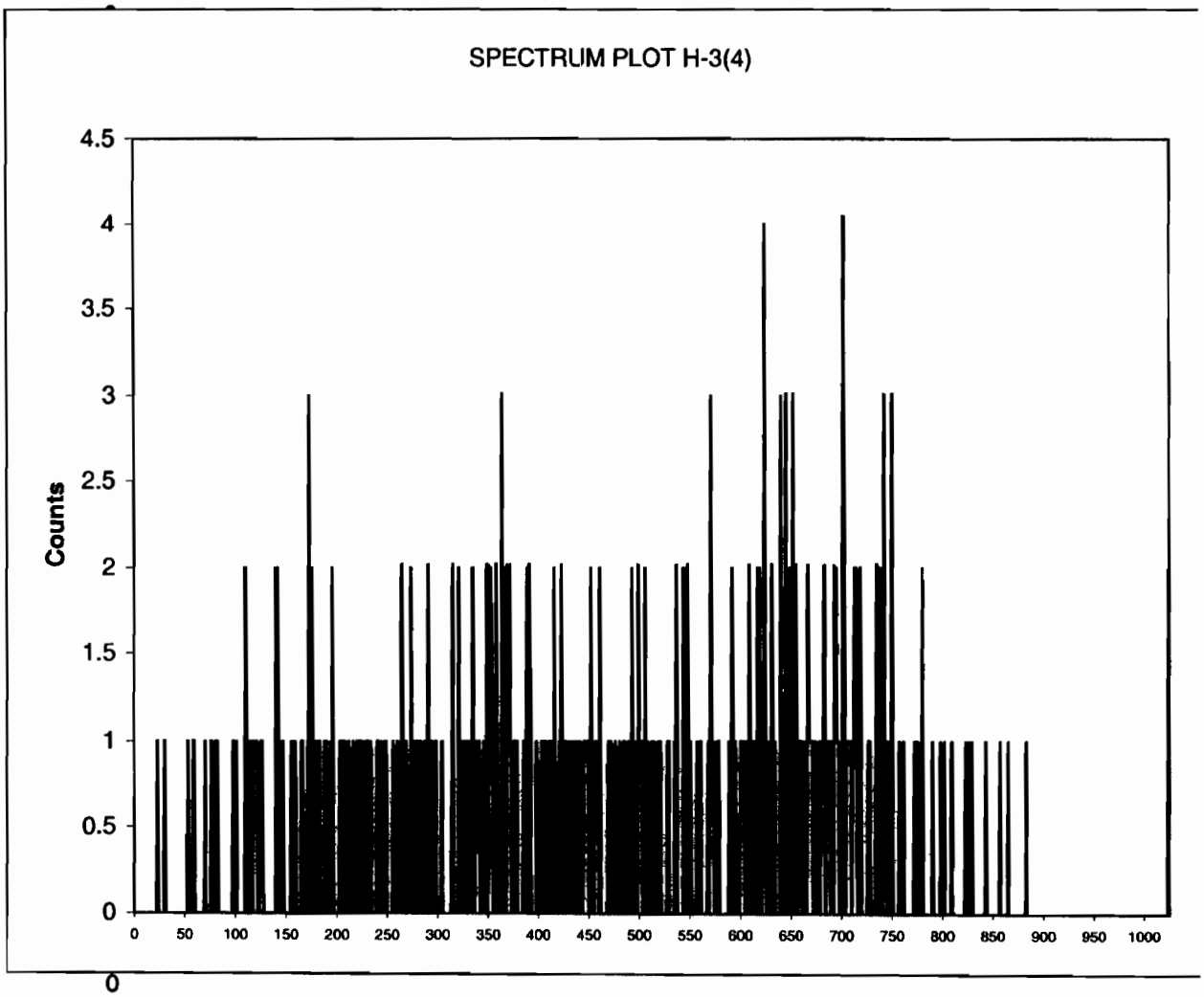
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
Data Capture Date:	TUE 30 MAR 2010 1:52
FileName:	s:\lsc\files\pink\964063A1\SQ052101N.001.xls
File Info:	s:\lsc\files\pink\964063A1\U964063A1.xls
ID:	H-3(4)
Comments:	PINK
Sample, Rack-Pos, Time:	5, 1202068228, 50.02975:
Quench:	806.03
Start, End, X-Axis	1-174

Channel Counts

0 0
1 0 4
2
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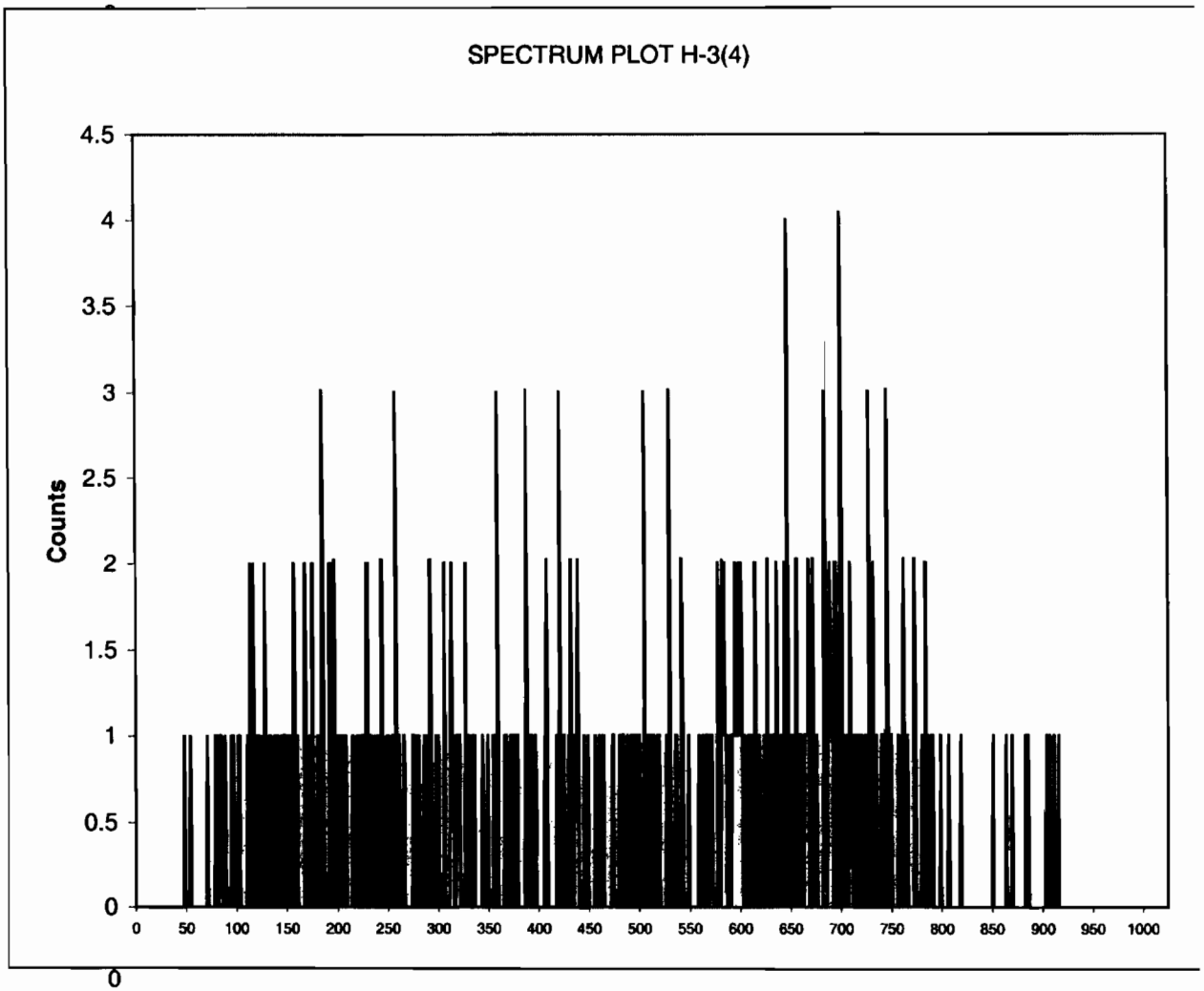
34 0
35 0



Instrument Type:	Quantulus
Data Capture Date:	TUE 30 MAR 2010 1:52
FileName:	s:\lsc\files\pink\964063A1\SQ062201N.001.xls
File Info:	s:\lsc\files\pink\964063A1\U964063A1.xls

ID:	H-3(4)
Comments:	PINK

Sample, Rack-Pos, Time:	6, 1202068229, 50.02975:
Quench:	805.34
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	5
3	
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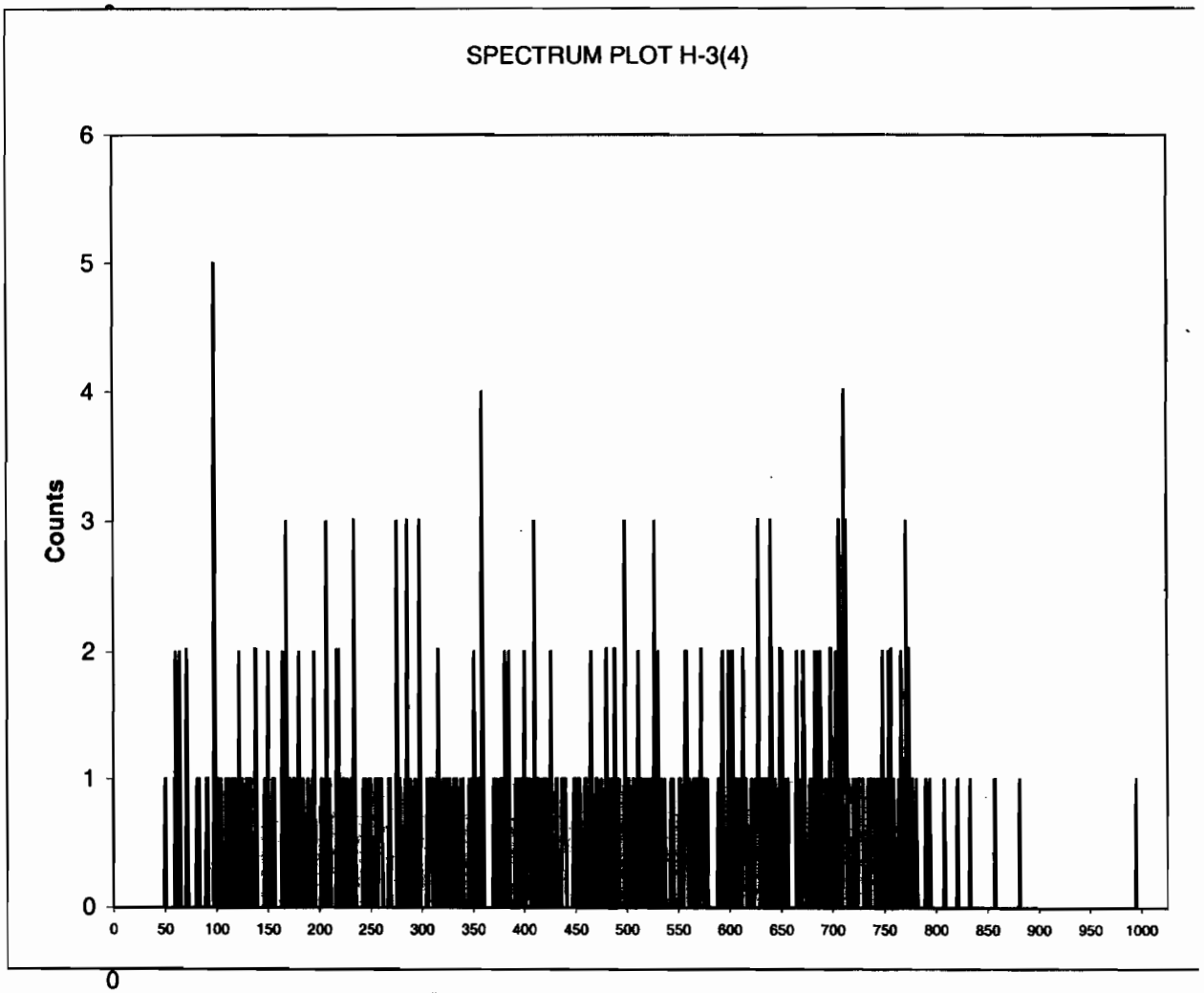
28	
29	
30	
31	
32	
33	
34	0
35	0



Instrument Type:	Quantulus
Data Capture Date:	TUE 30 MAR 2010 1:52
FileName:	s:\lsc\files\pink\964063A1\SQ072301N.001.xls
File Info:	s:\lsc\files\pink\964063A1\U964063A1.xls
ID:	H-3(4)
Comments:	PINK
Sample, Rack-Pos, Time:	7, 1202068230, 15.02963:
Quench:	806.36
Start, End, X-Axis	1-174

Channel	Counts
0	0
1	0
2	
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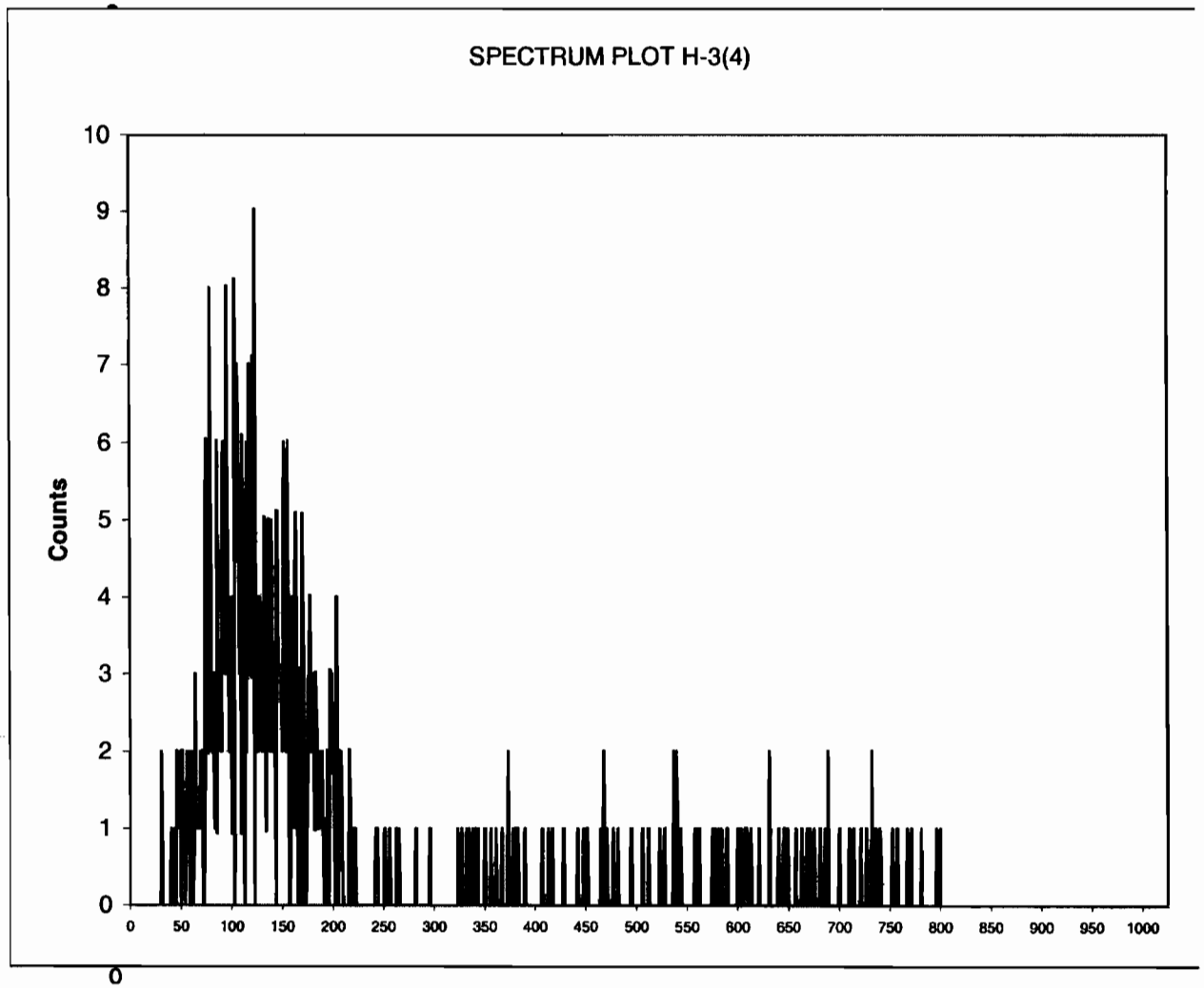
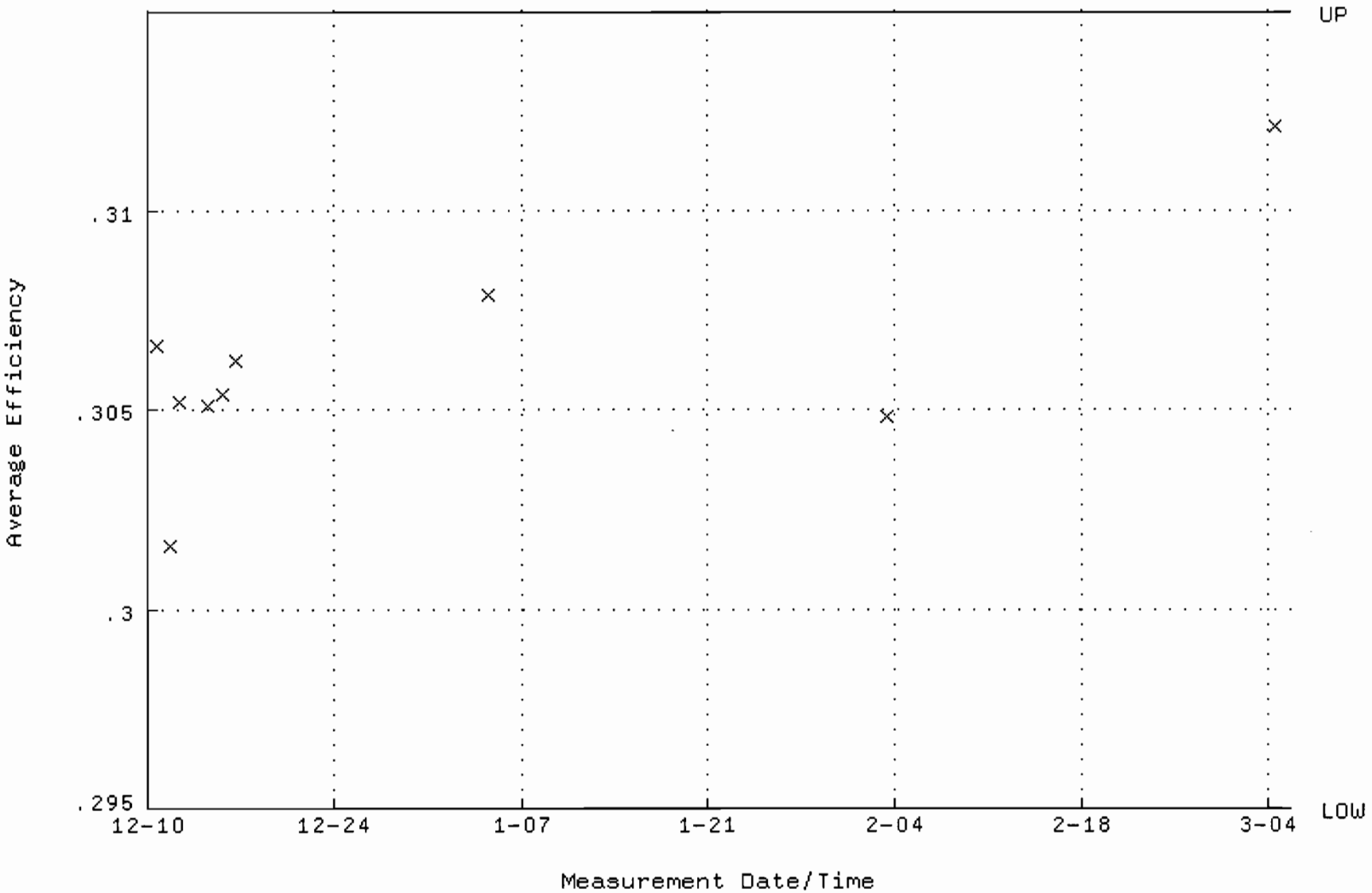
31	
32	
33	
34	0
35	0

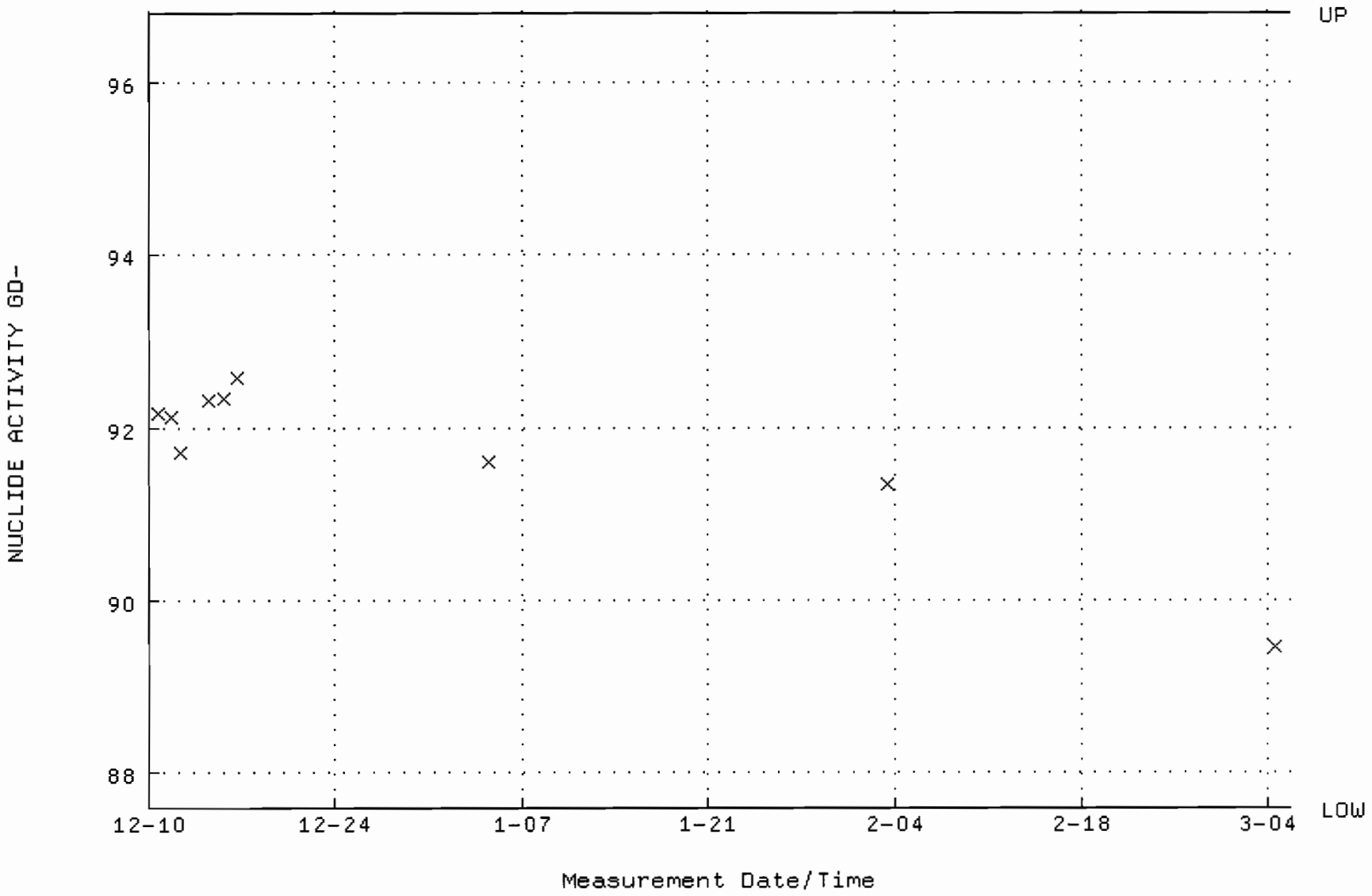


BACKGROUND AND EFFICIENCY DATA

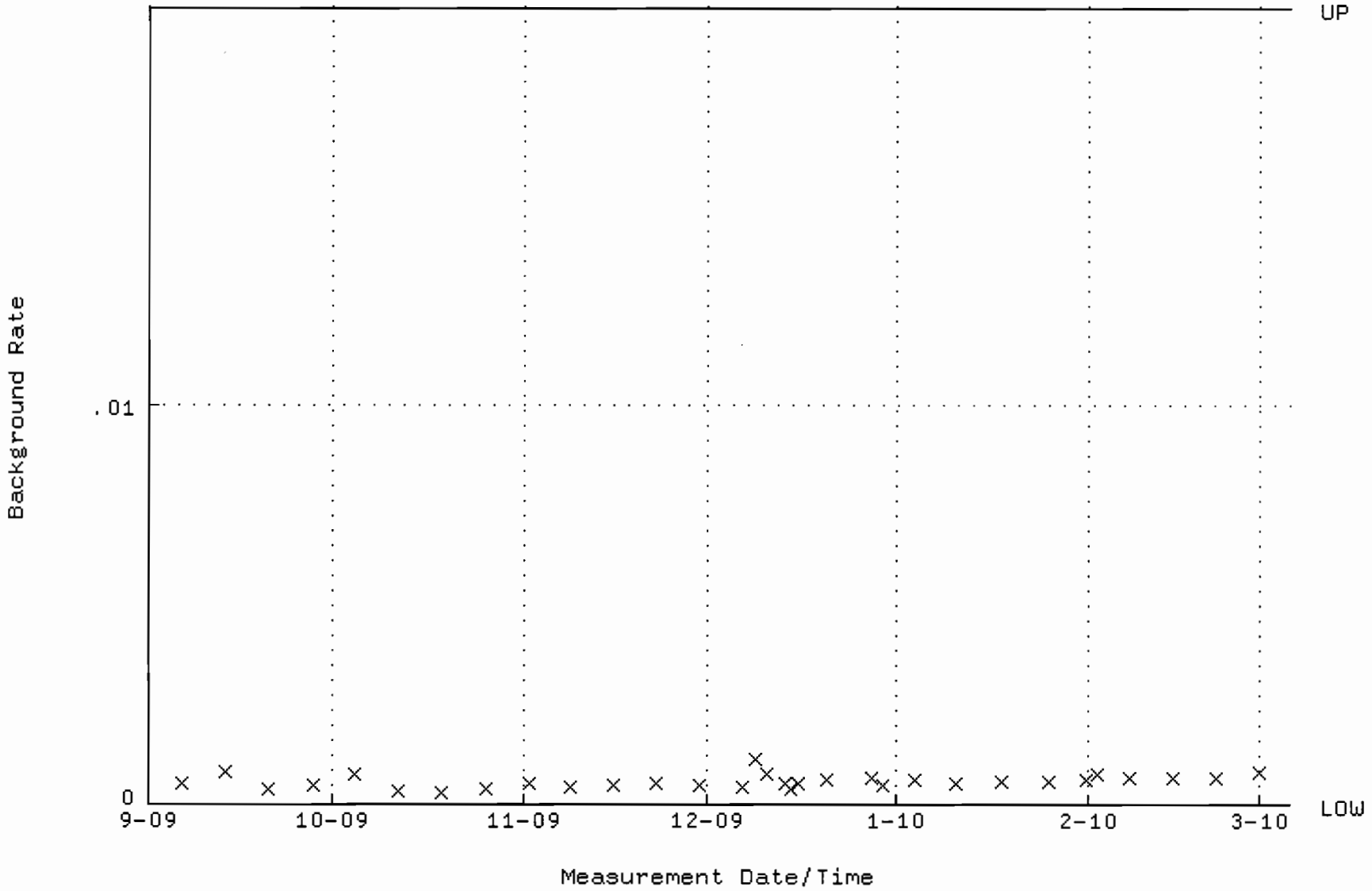
QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995



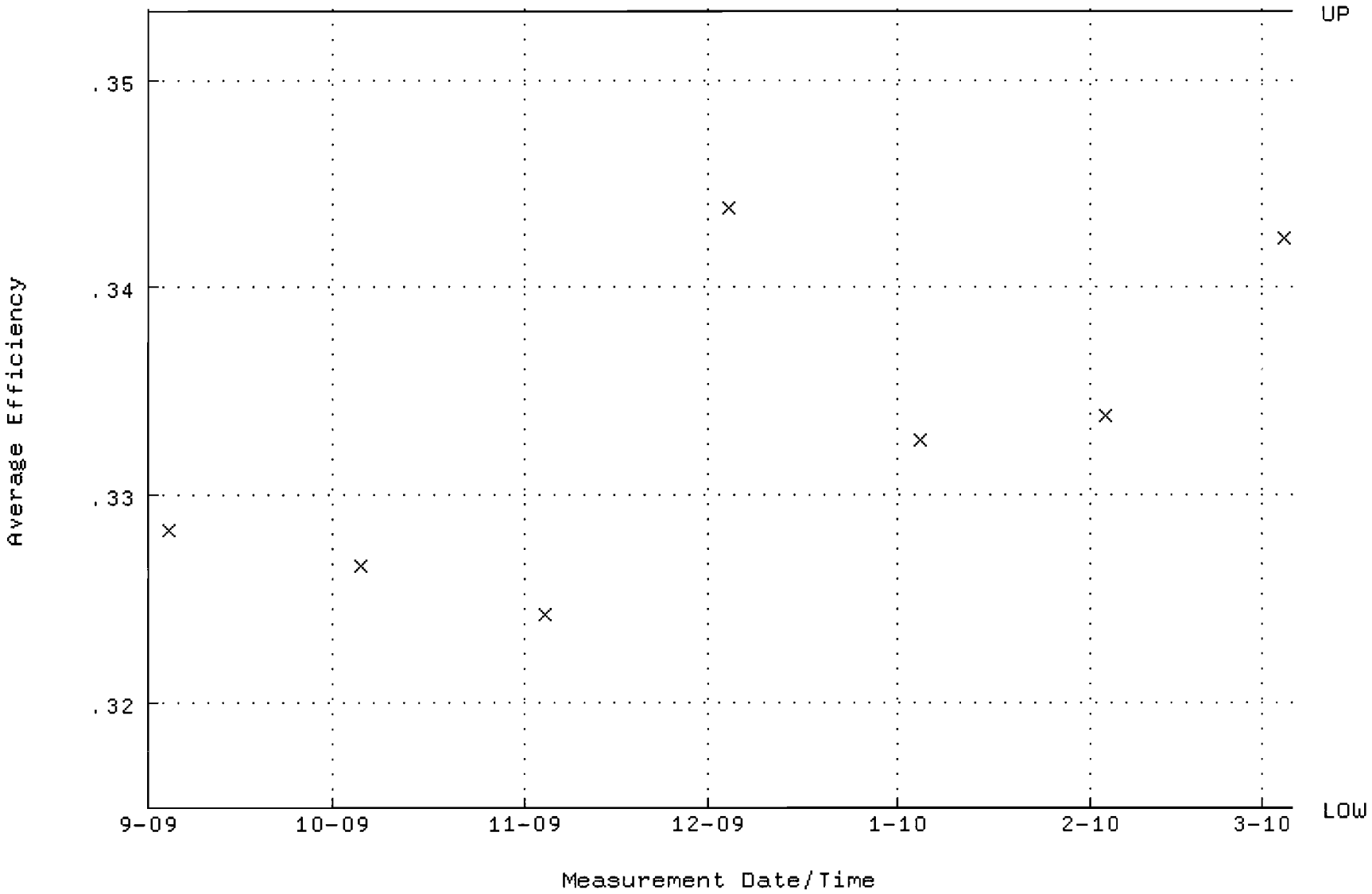
QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059



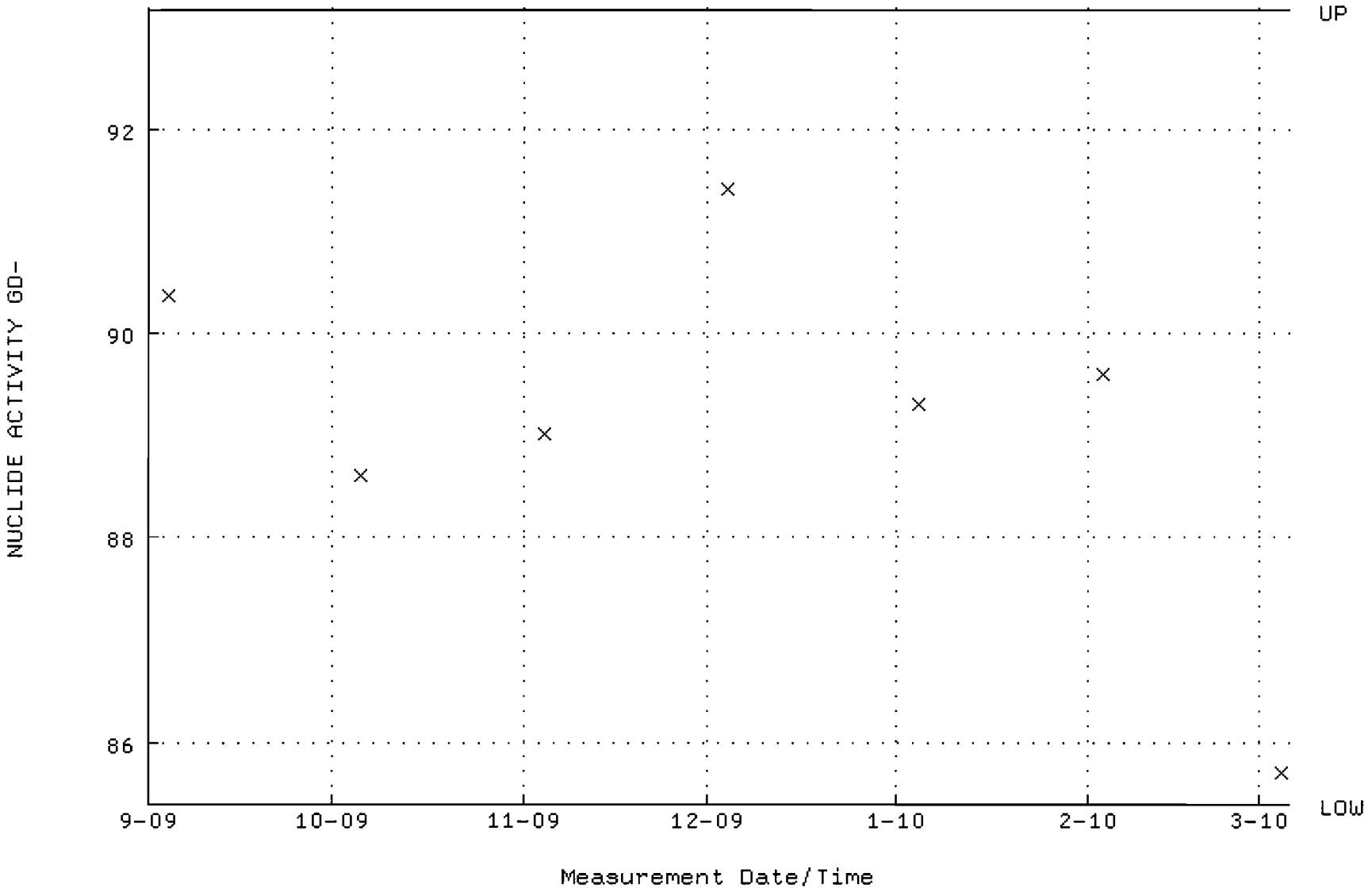
QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



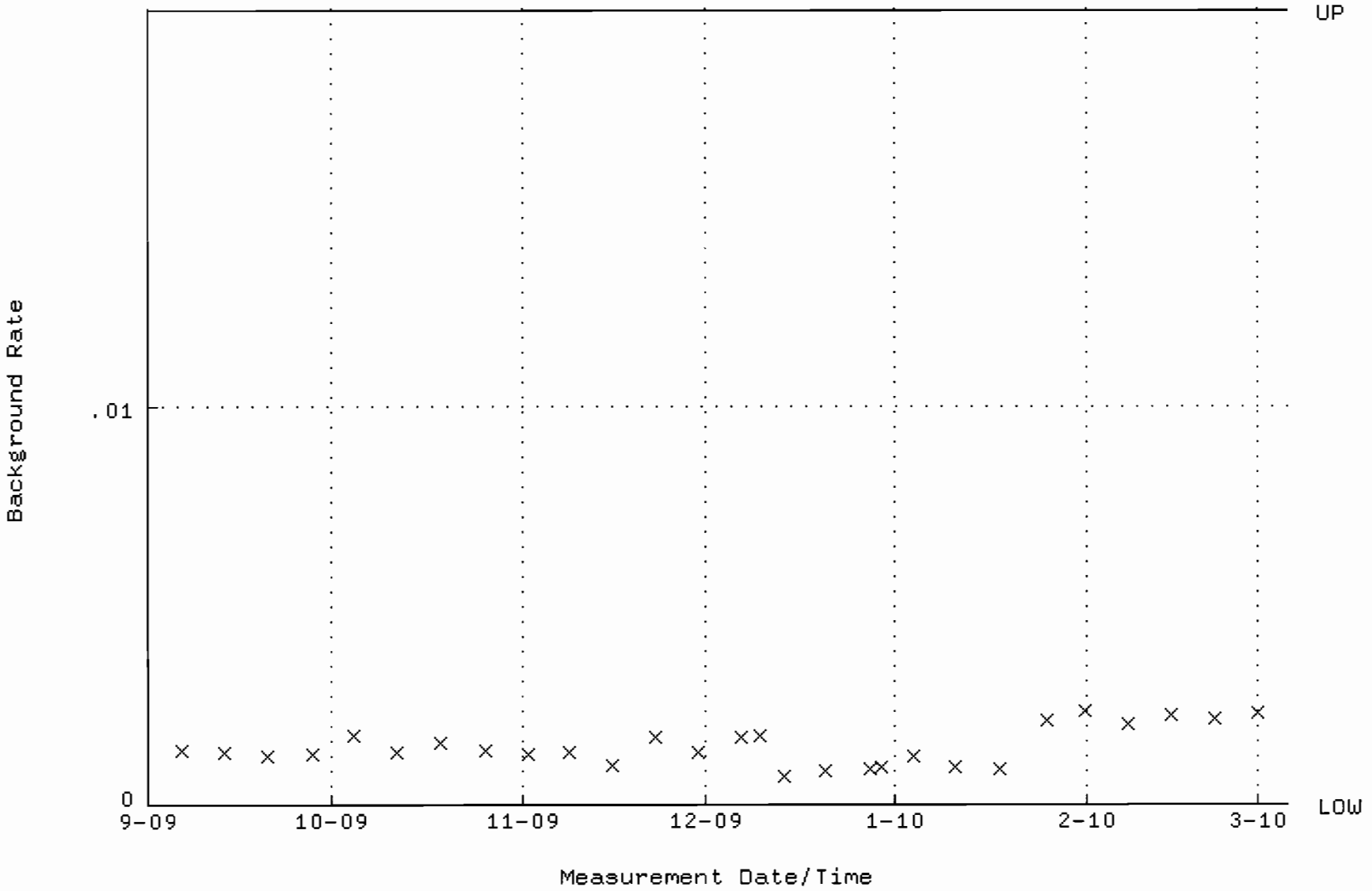
QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.314917 through 0.353325



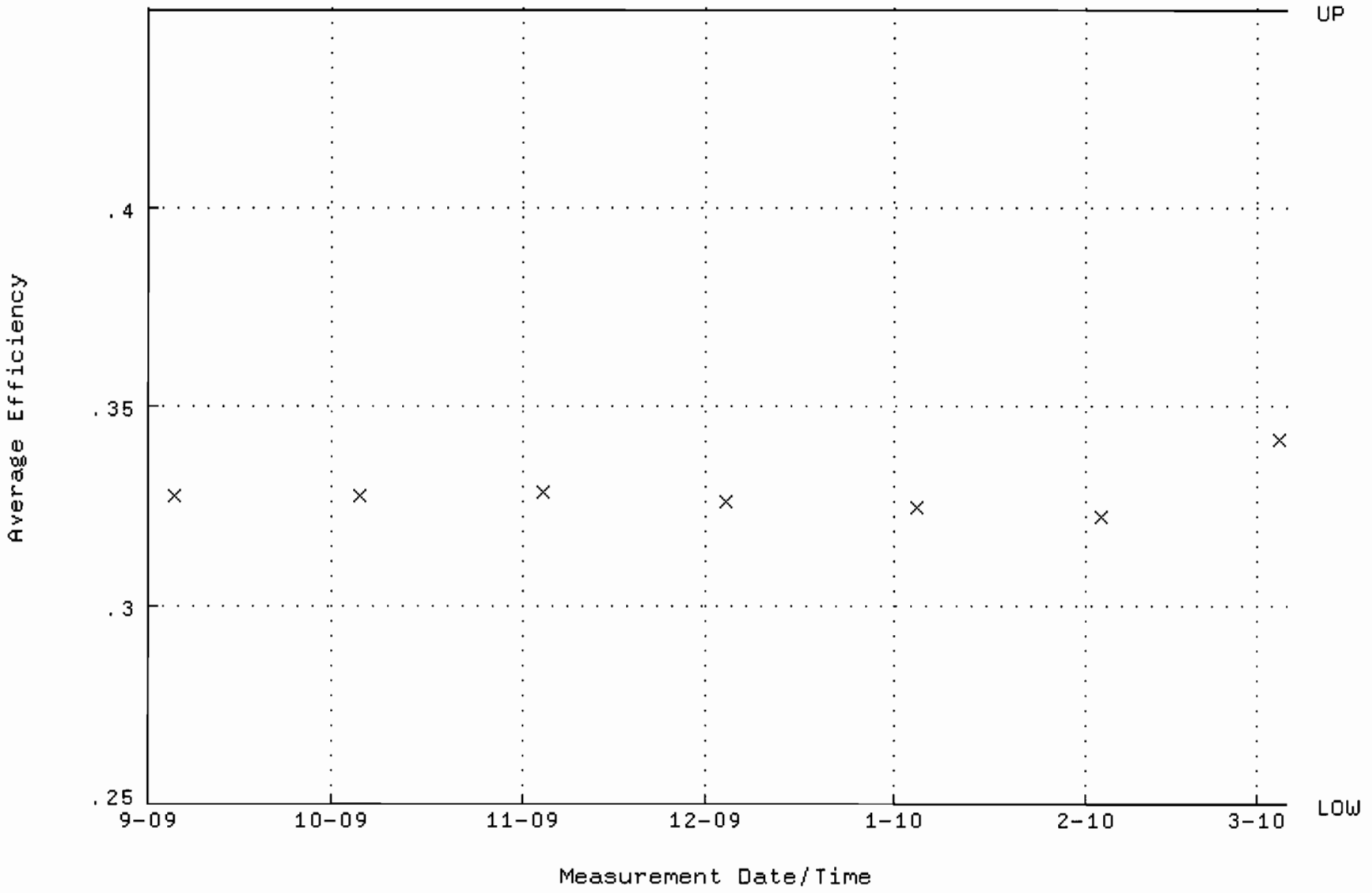
QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.3858 through 93.1784



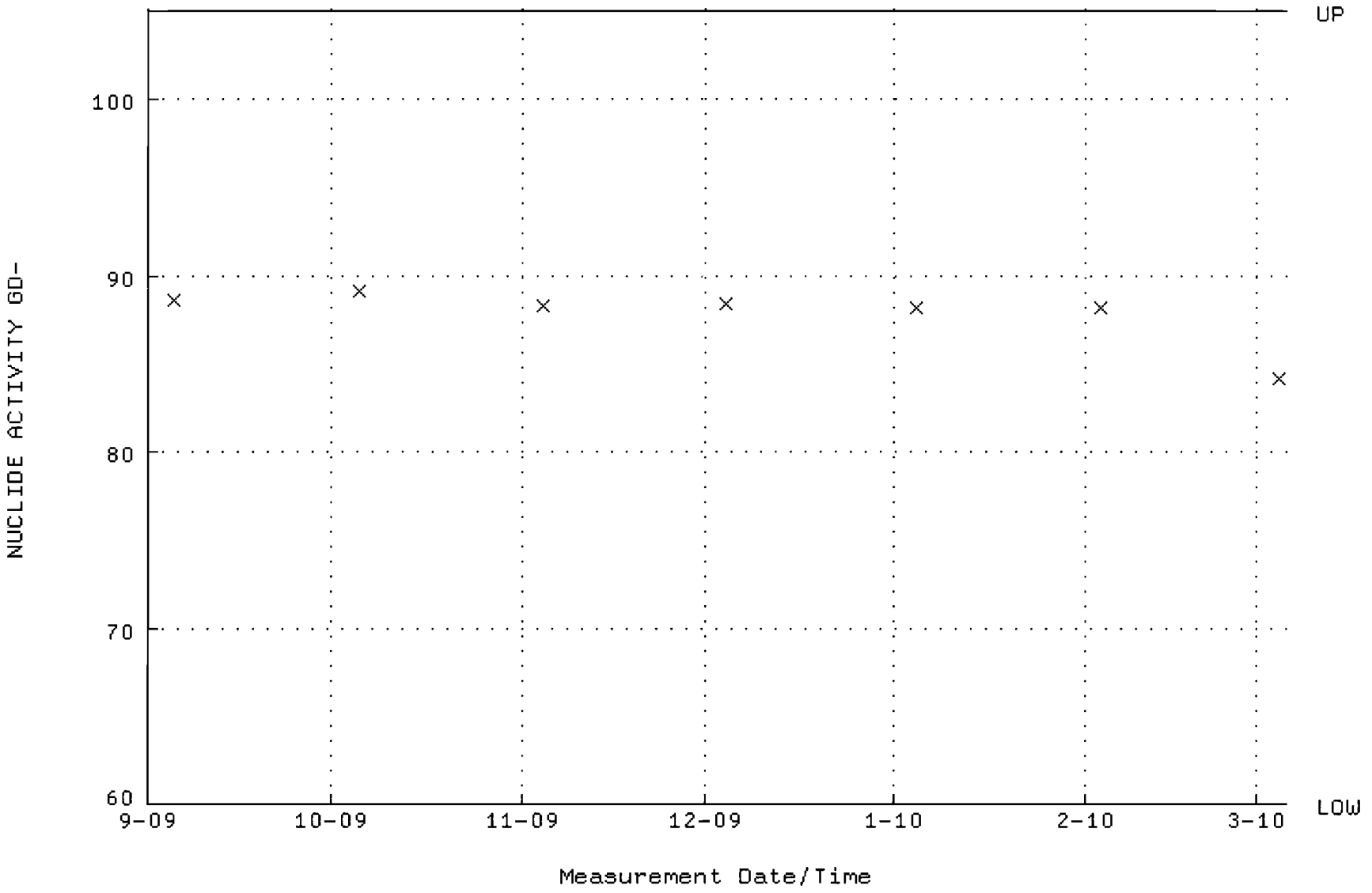
QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



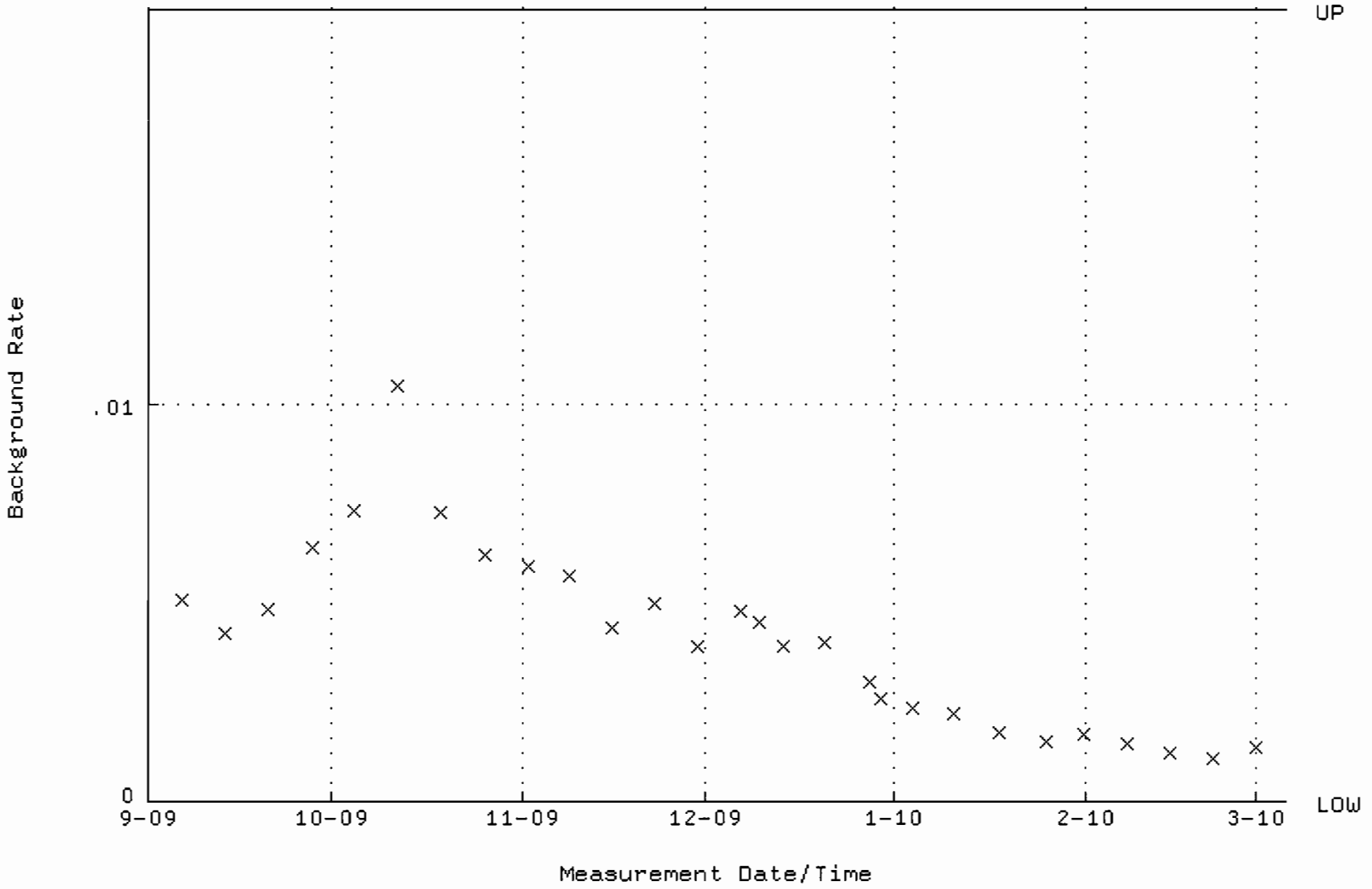
QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000



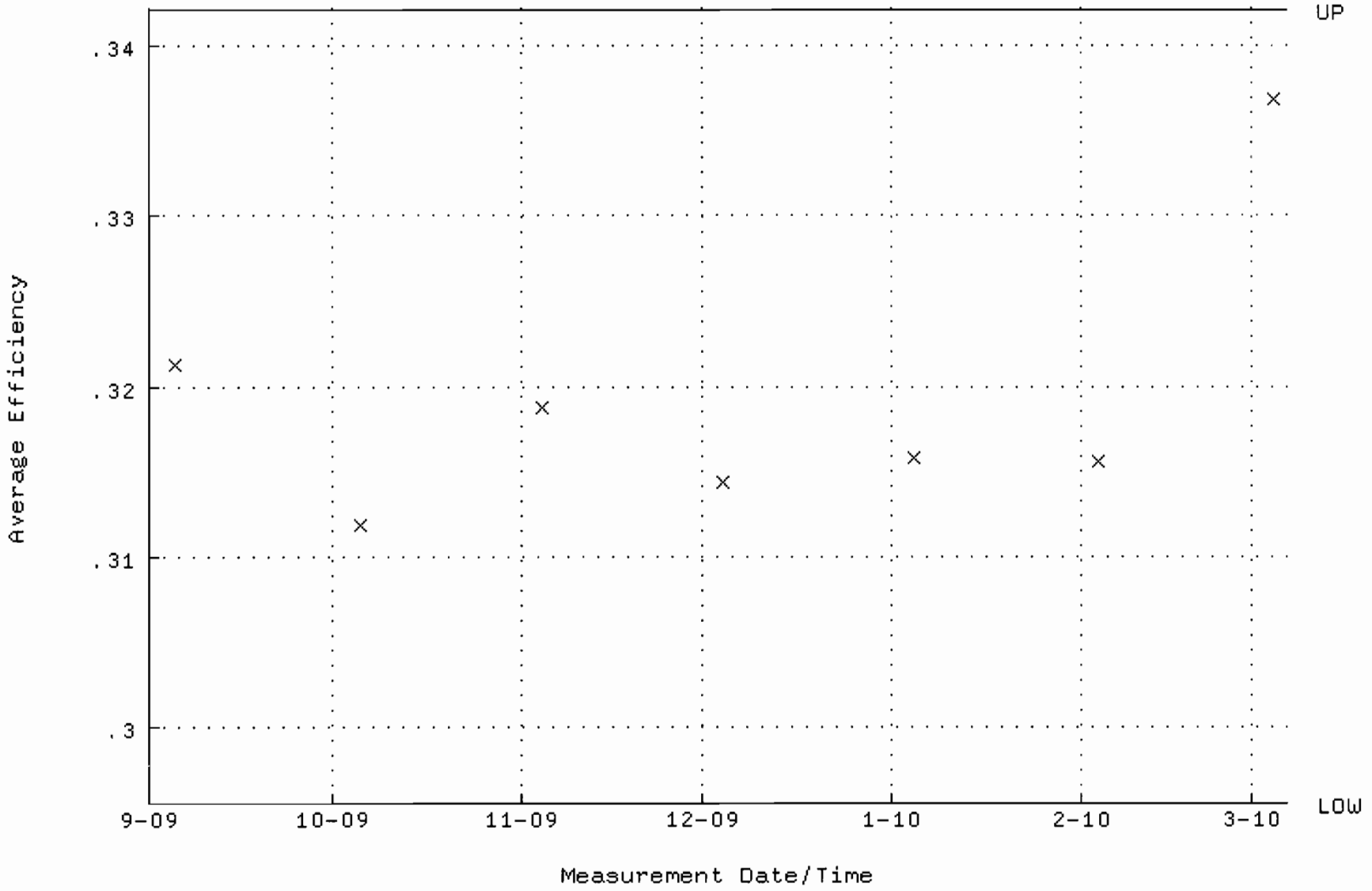
QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000



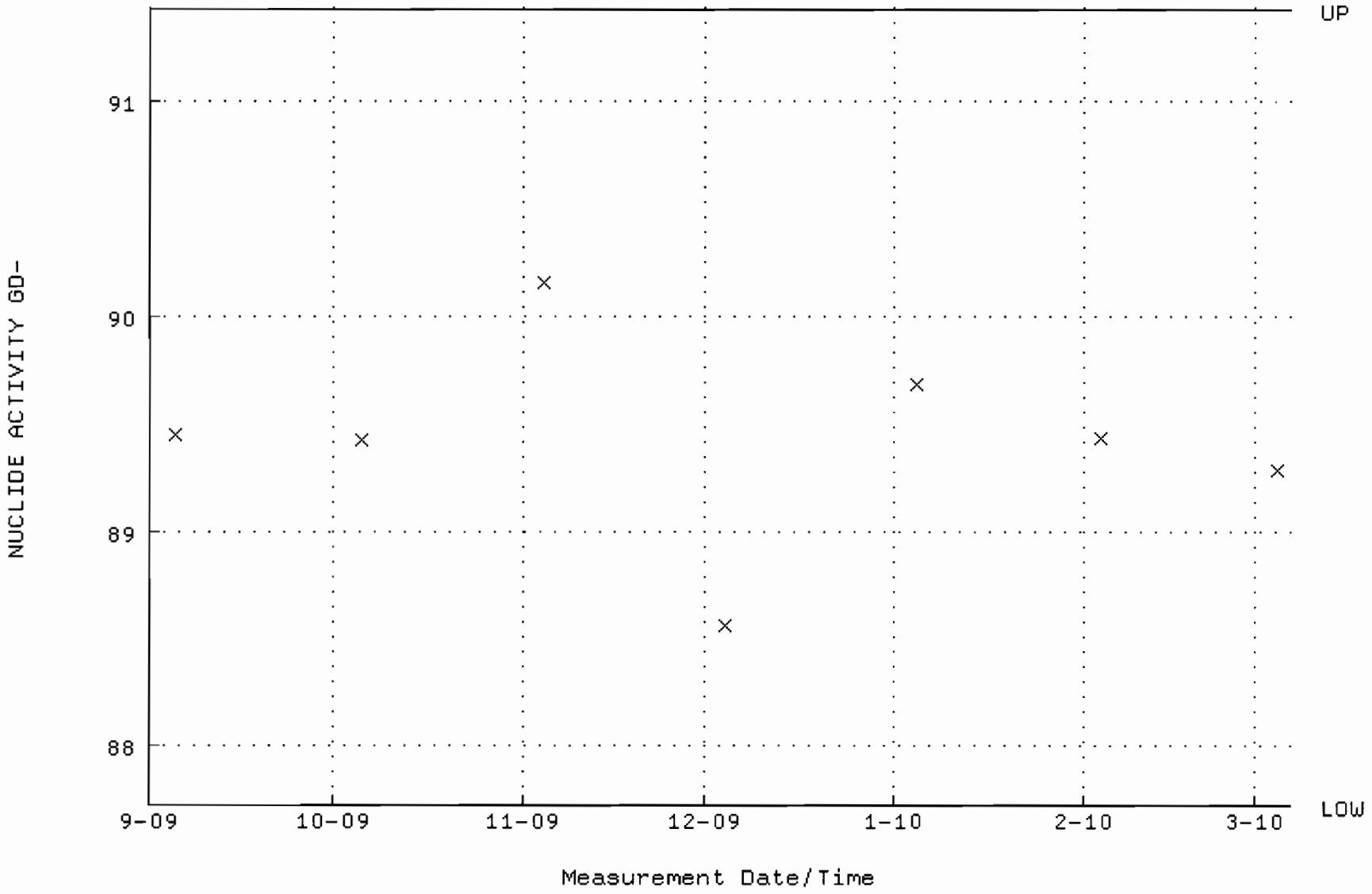
QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



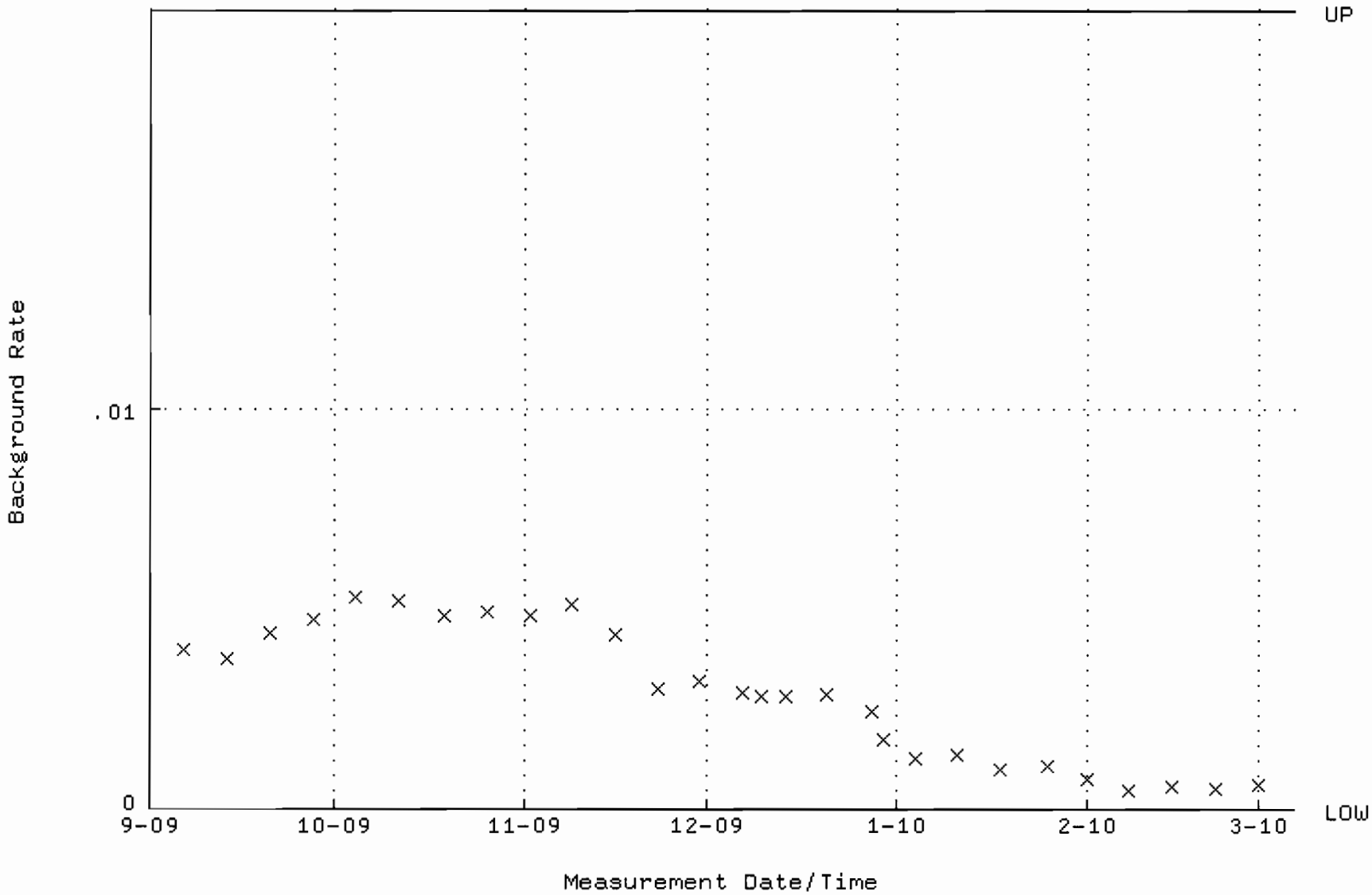
QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.295501 through 0.342091



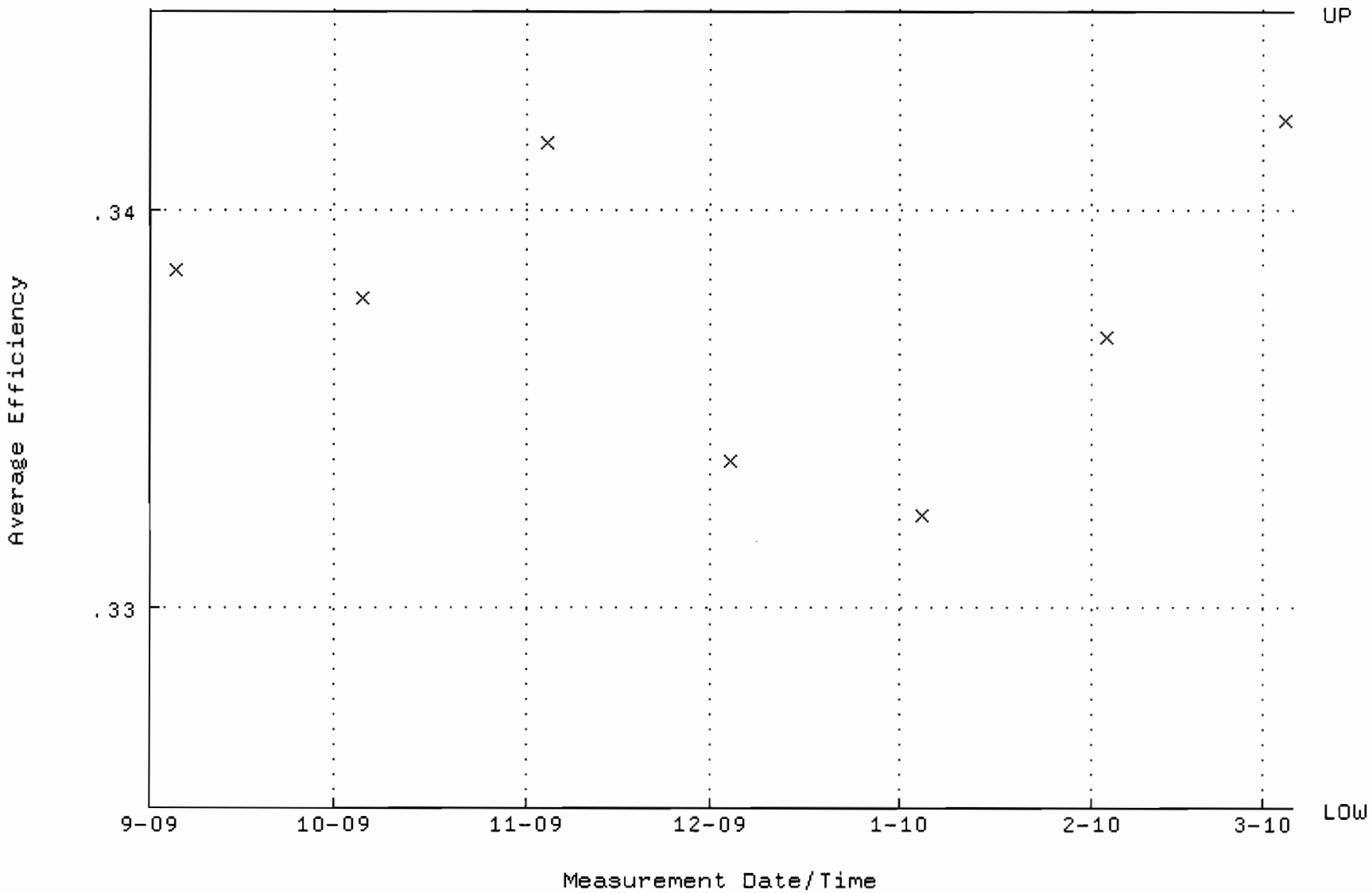
QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7241 through 91.4271



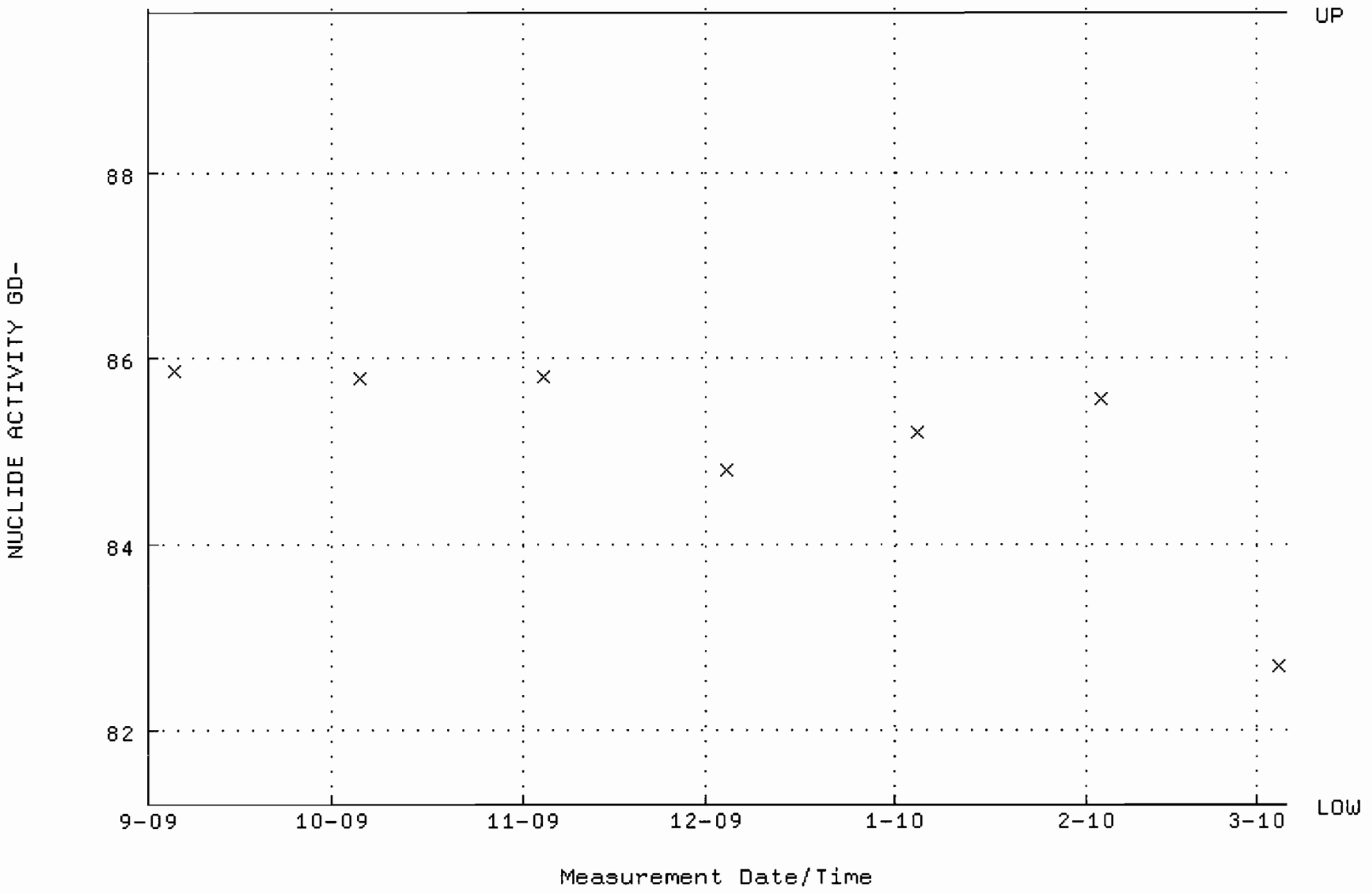
QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



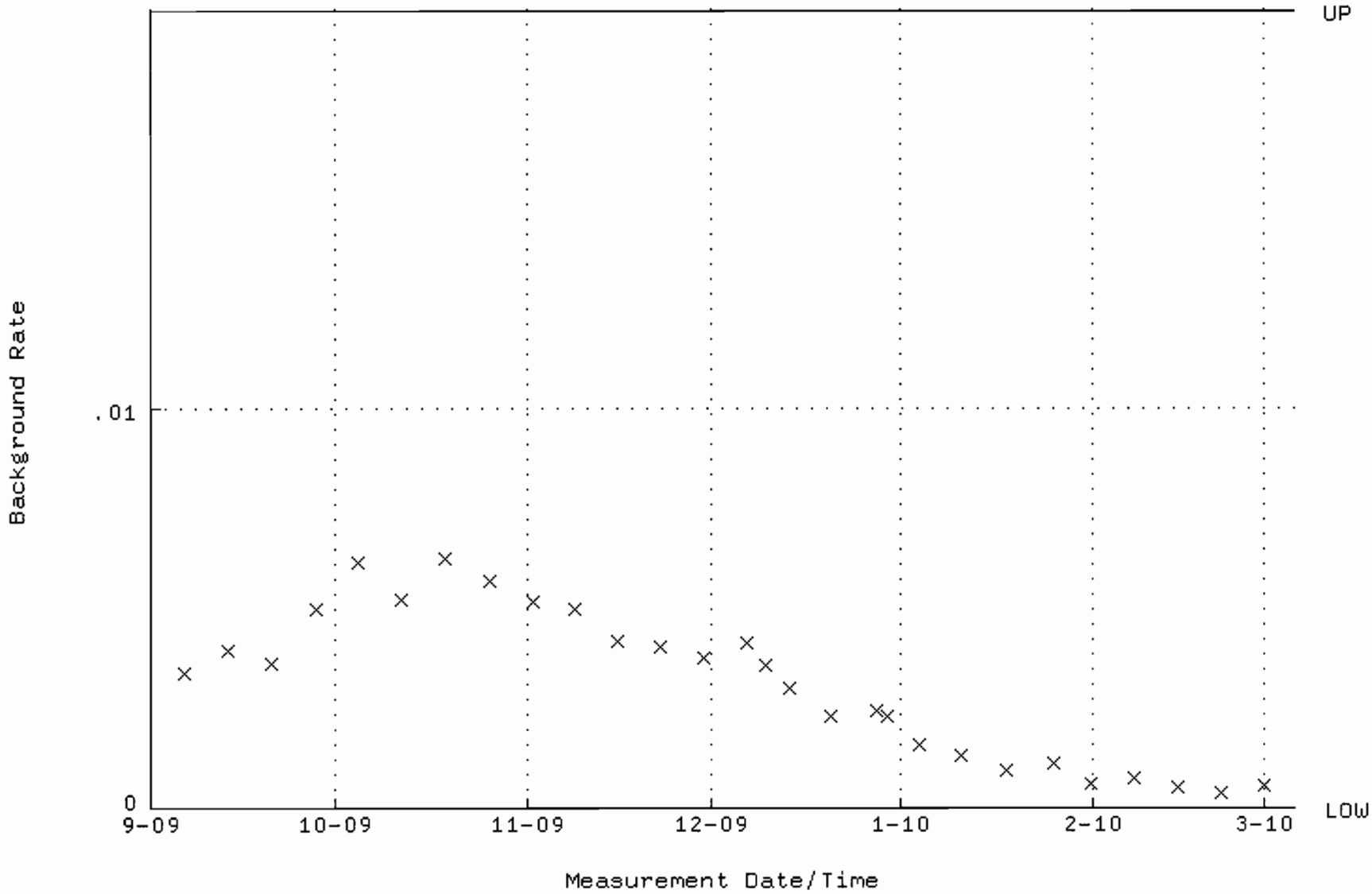
QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980



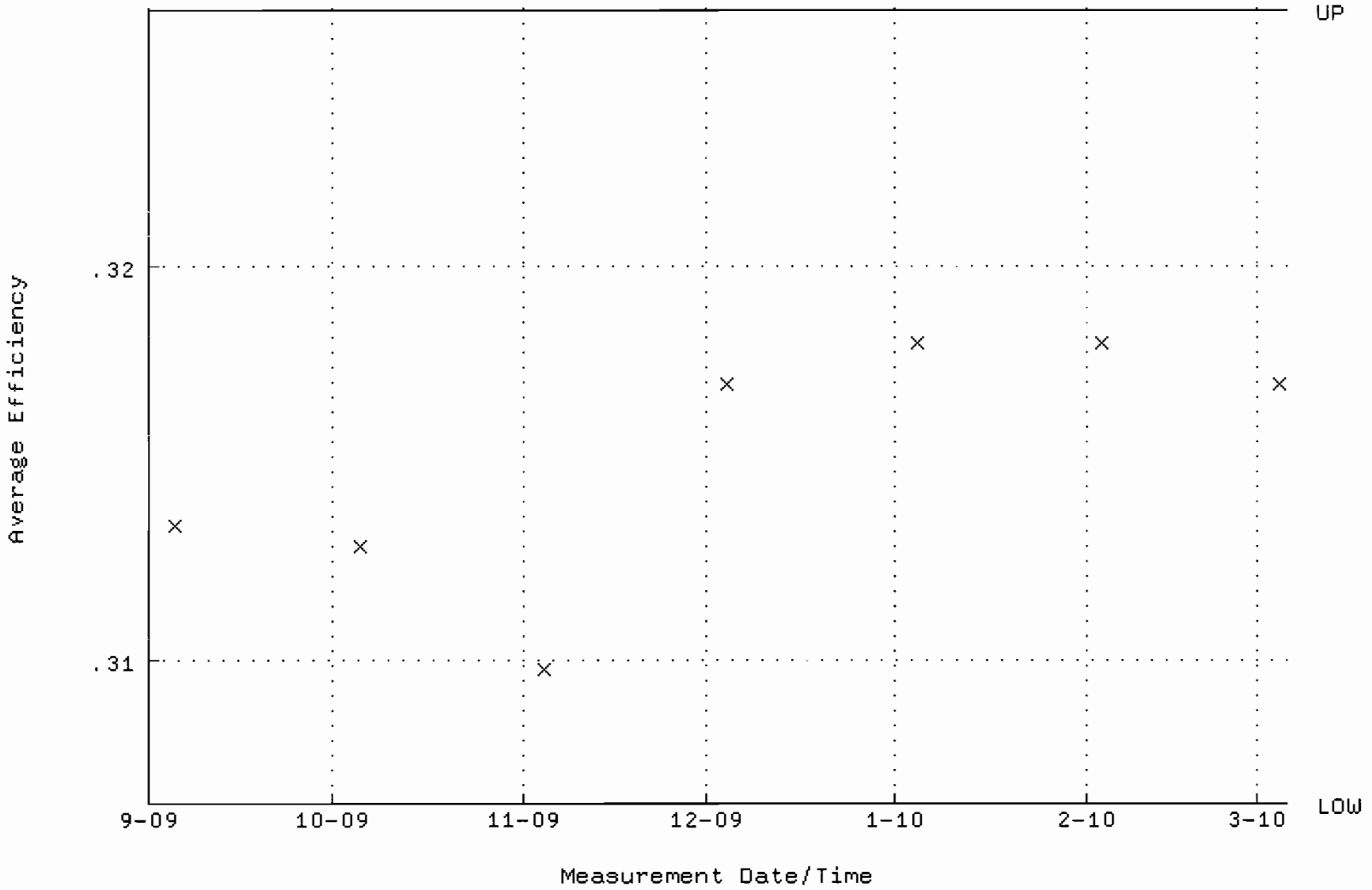
QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506



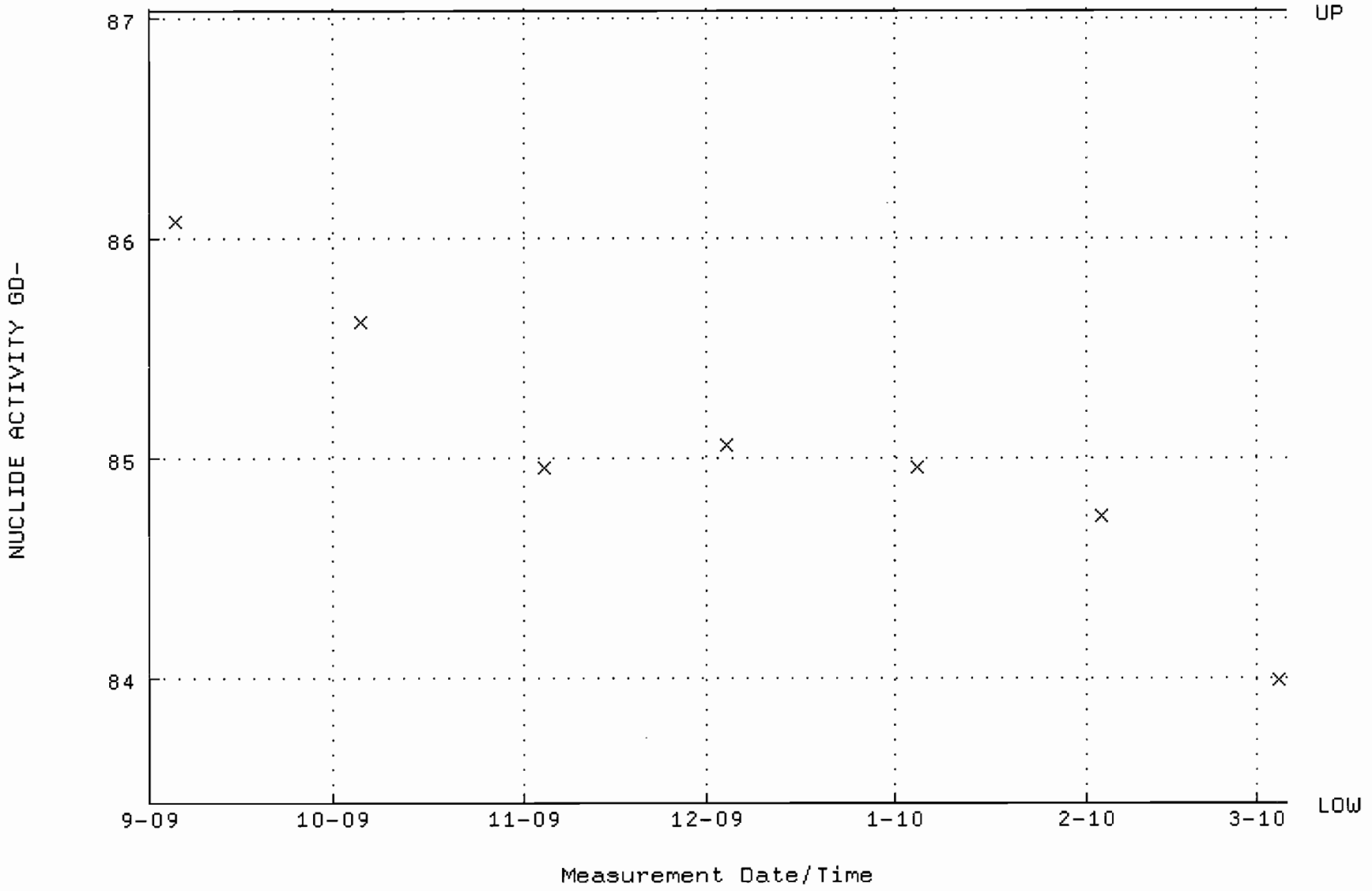
QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



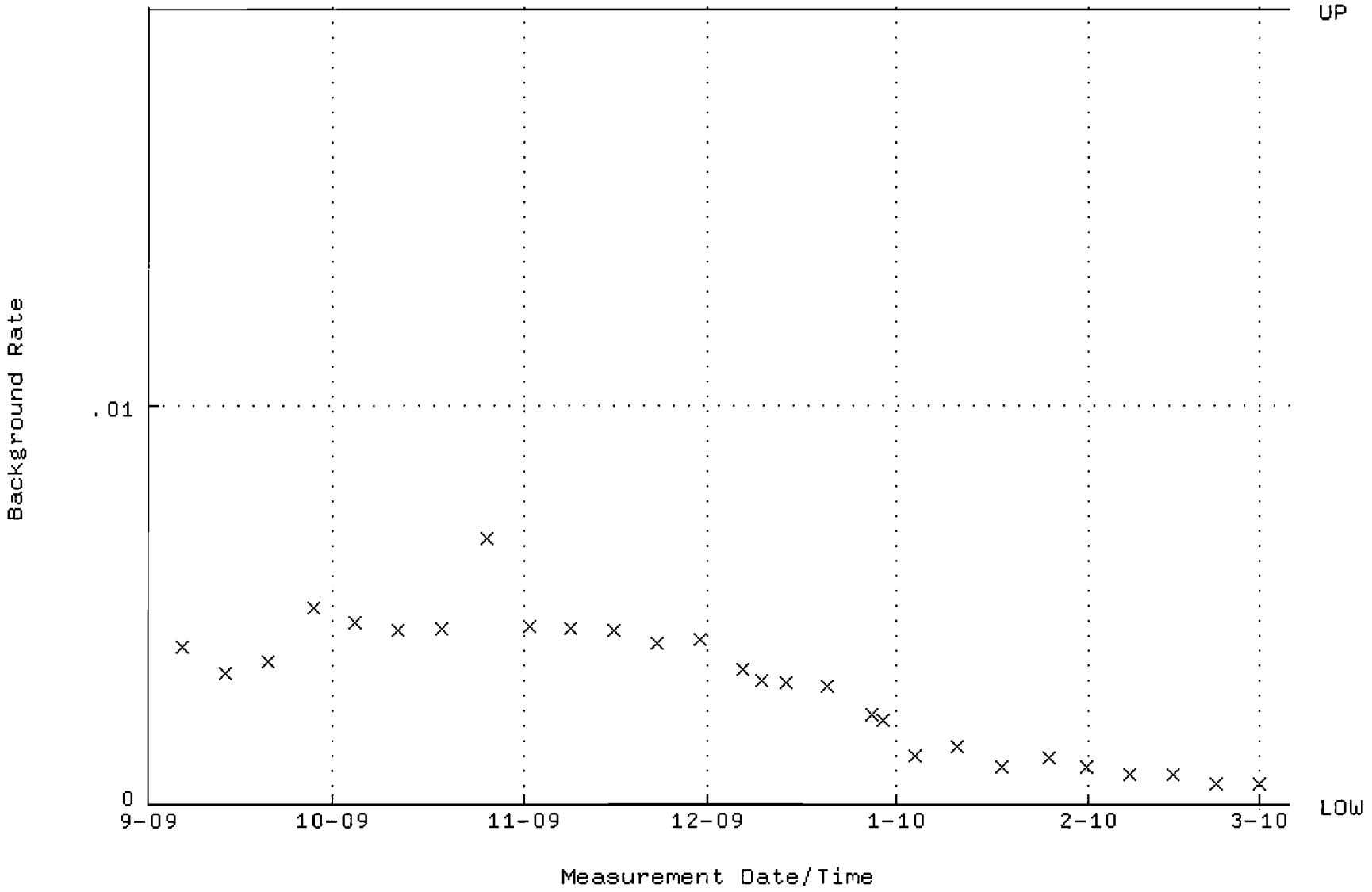
QA filename : DKA100:[ENV_ALPHA.QA.W]W033.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:09 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306364 through 0.326480



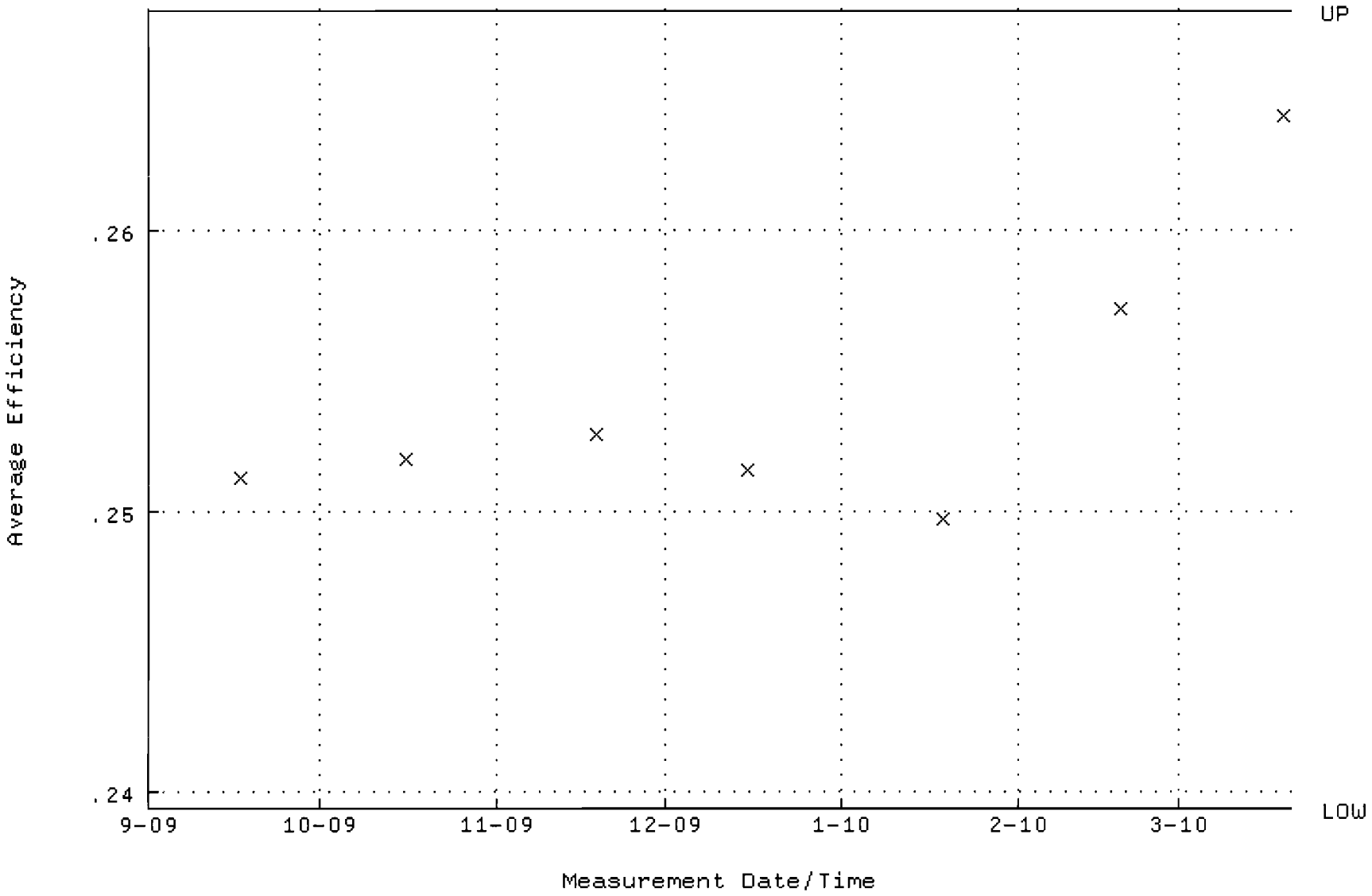
QA filename : DKA100:[ENV_ALPHA.QA.W]W033.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:09 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 83.4328 through 87.0310



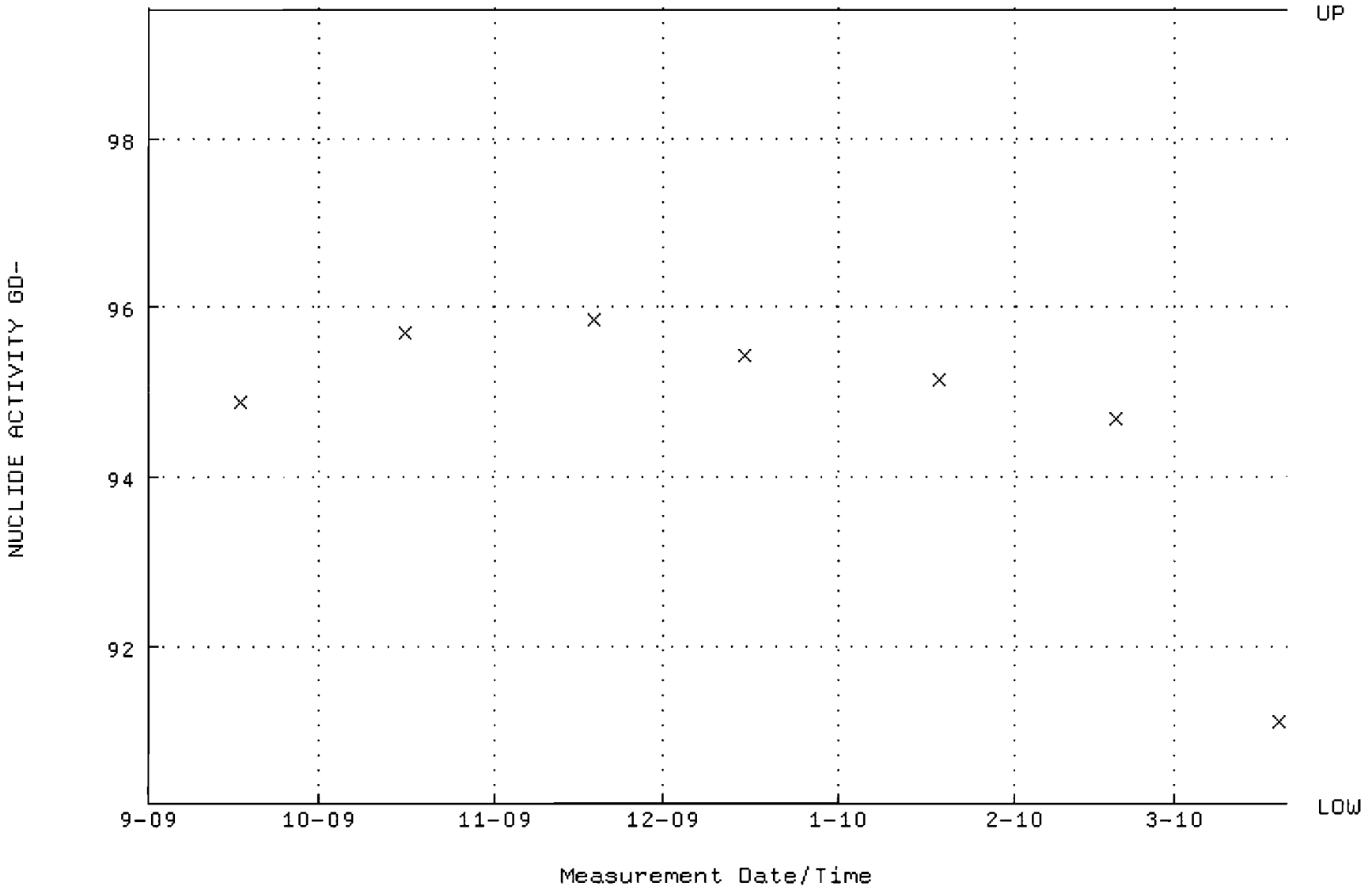
QA filename : DKA100:[ENV_ALPHA.QA.B]B033.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:04 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02



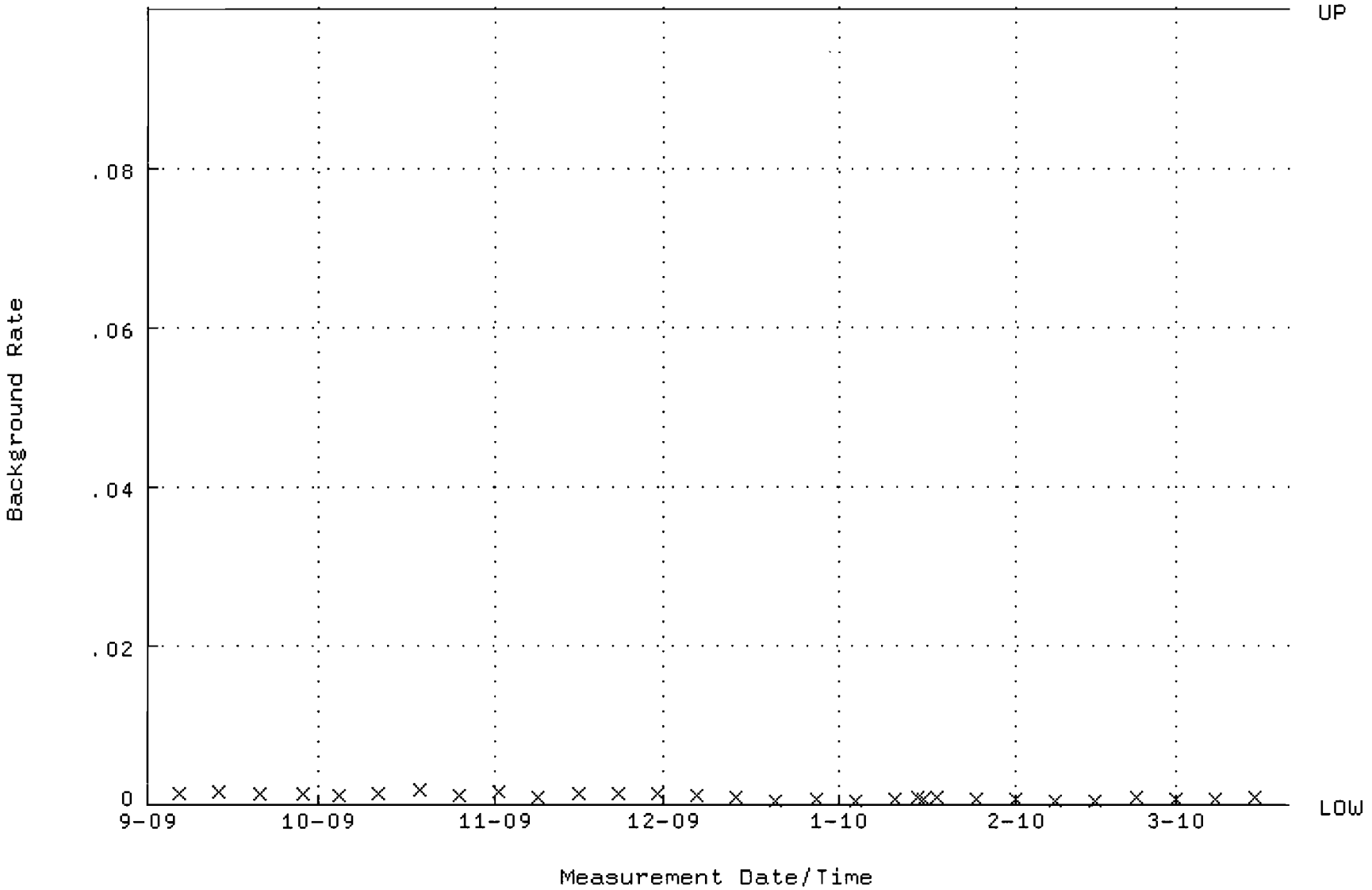
QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:33 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.239412 through 0.267828



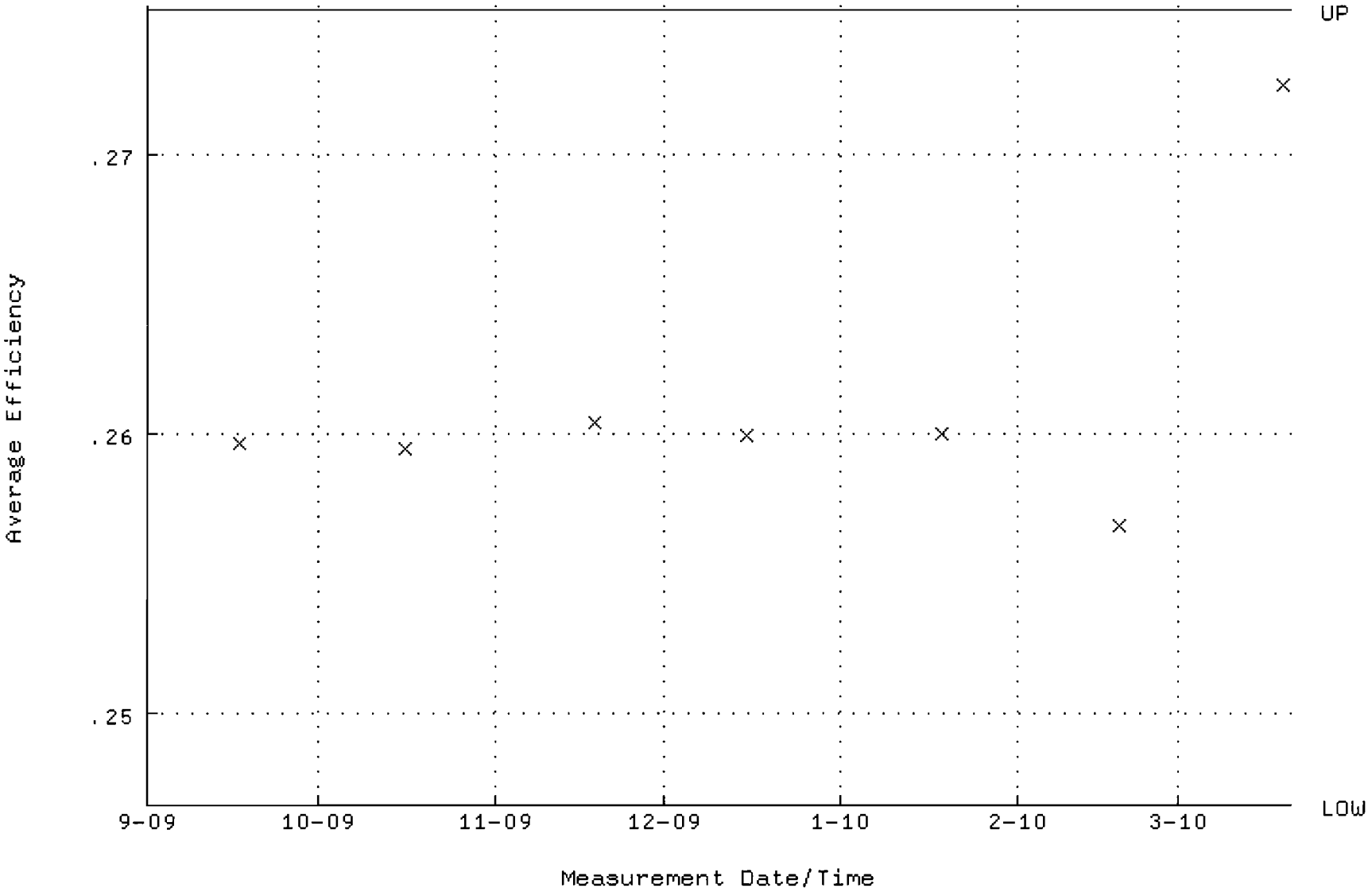
QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:33 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 90.1506 through 99.5122



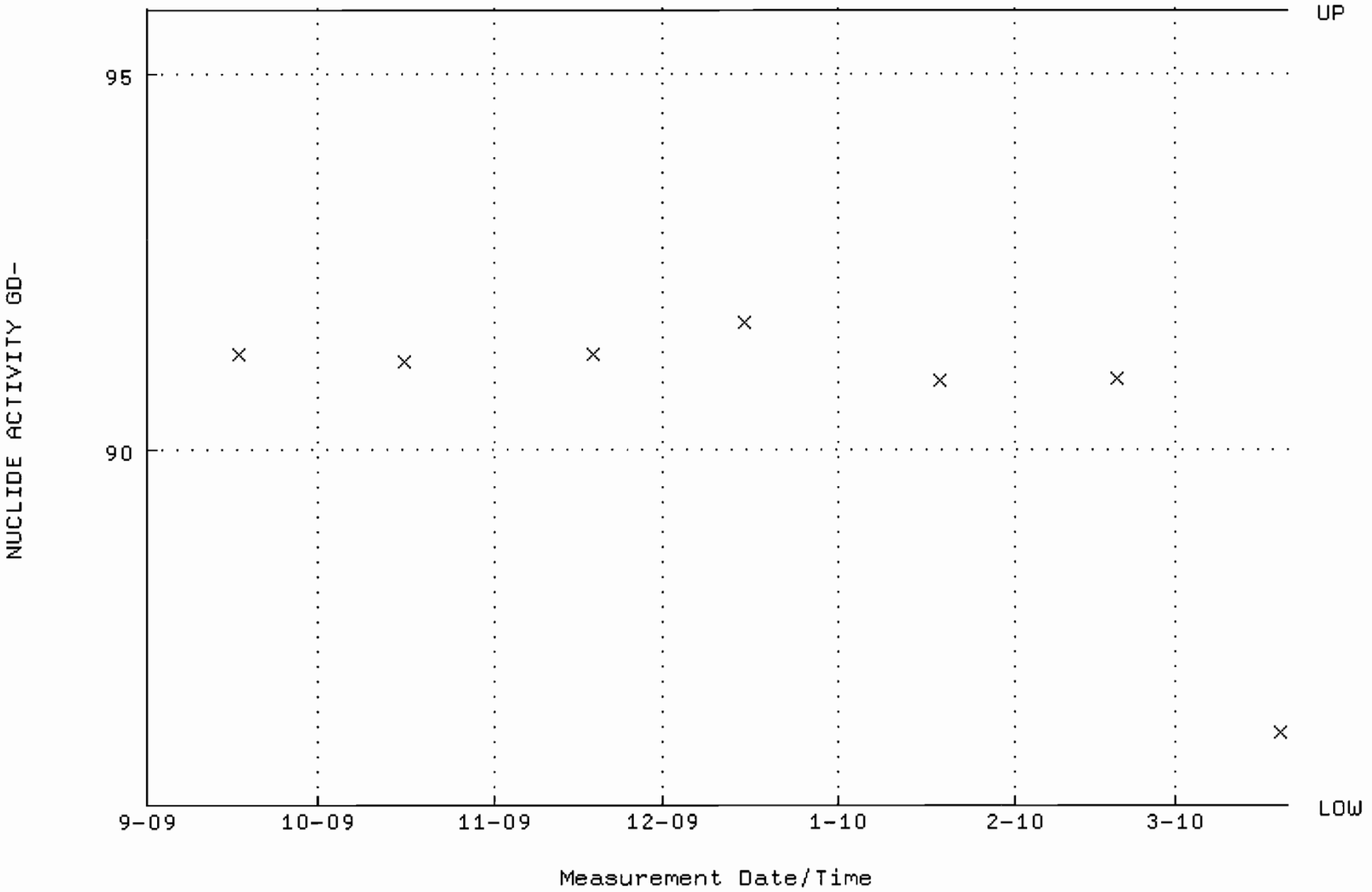
QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:48 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



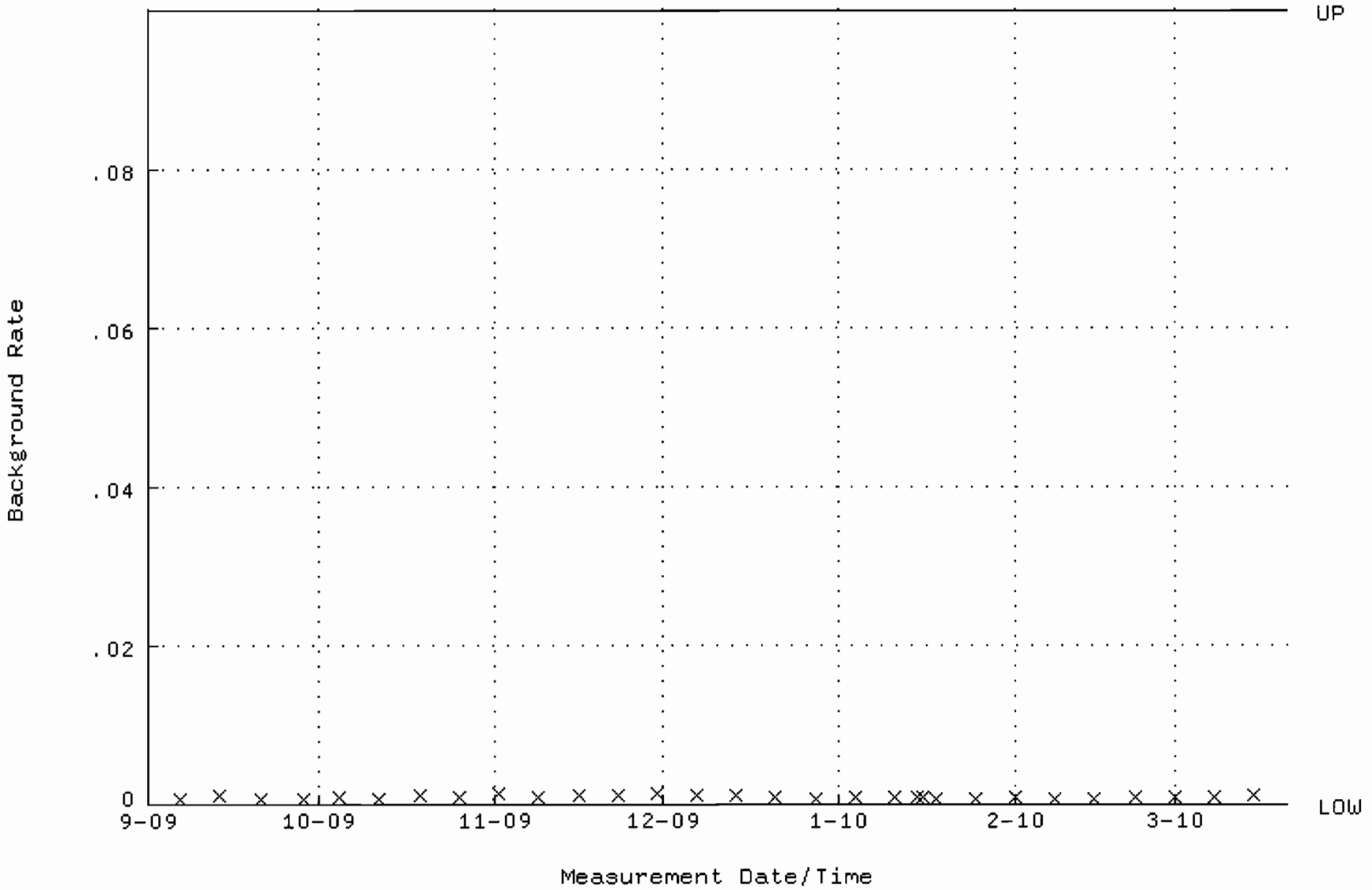
QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:40 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246718 through 0.275204



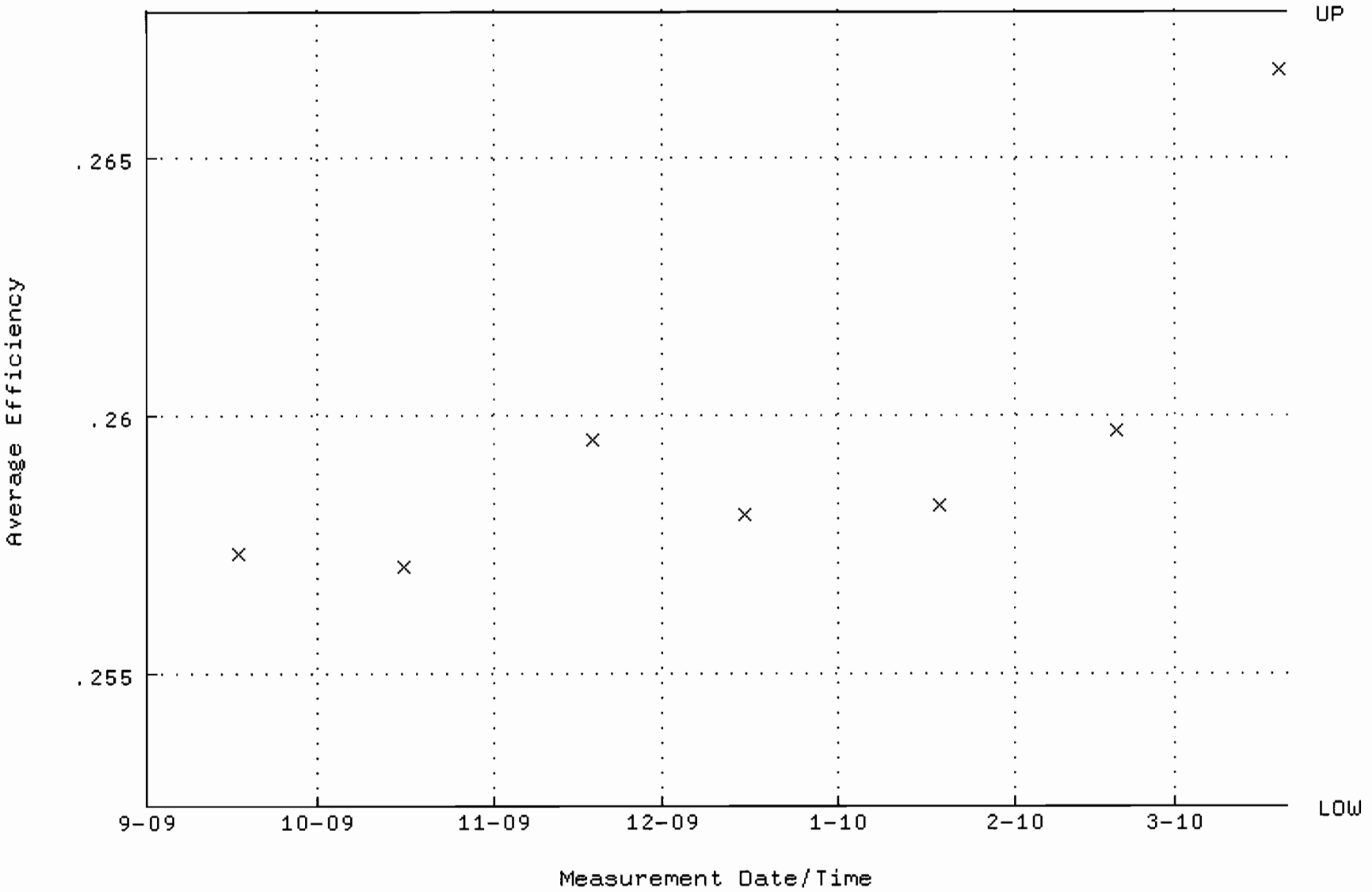
QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:40 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 85.2791 through 95.8339



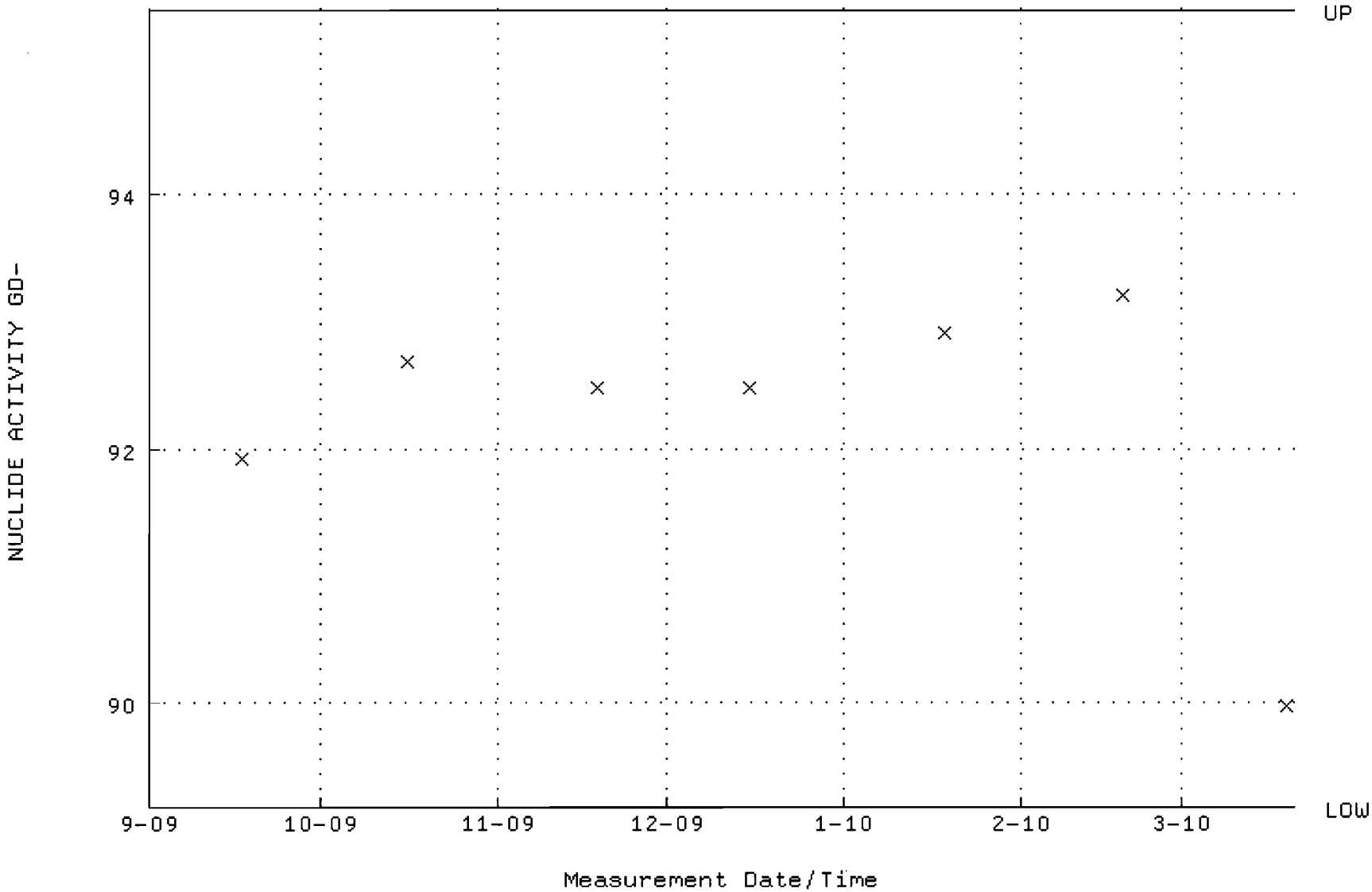
QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:52 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



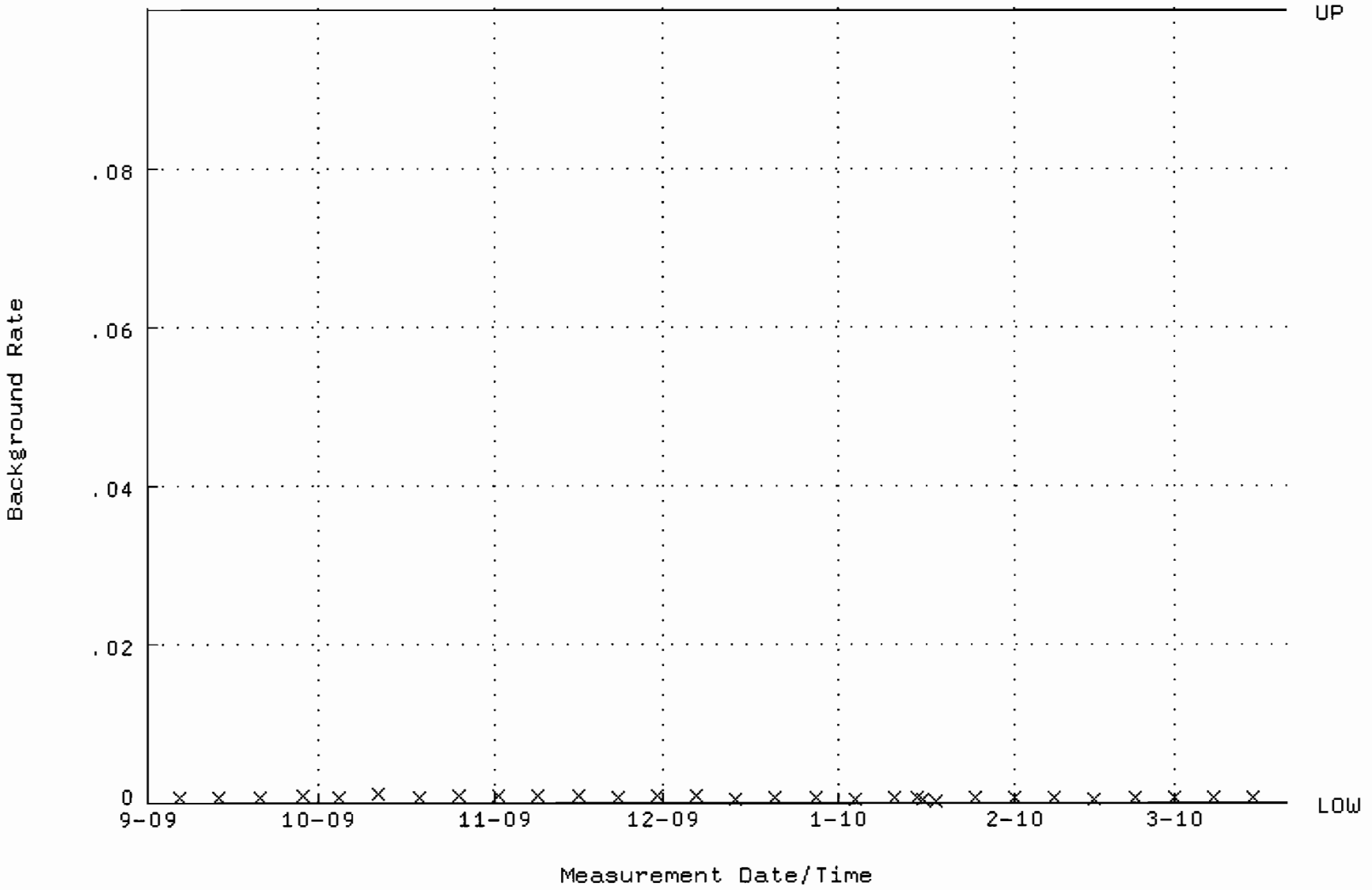
QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:47 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.252448 through 0.267830



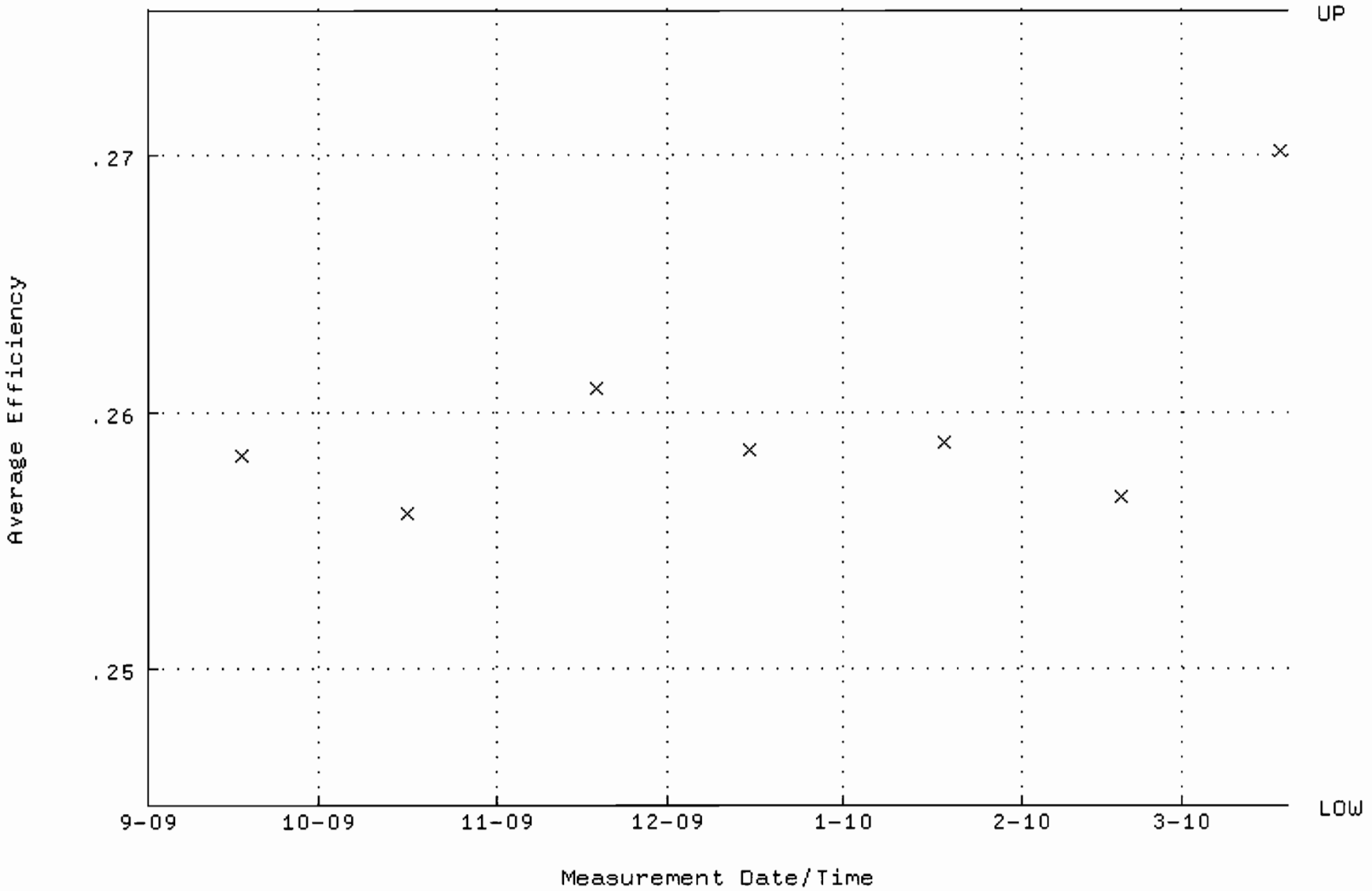
QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:47 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1805 through 95.4483



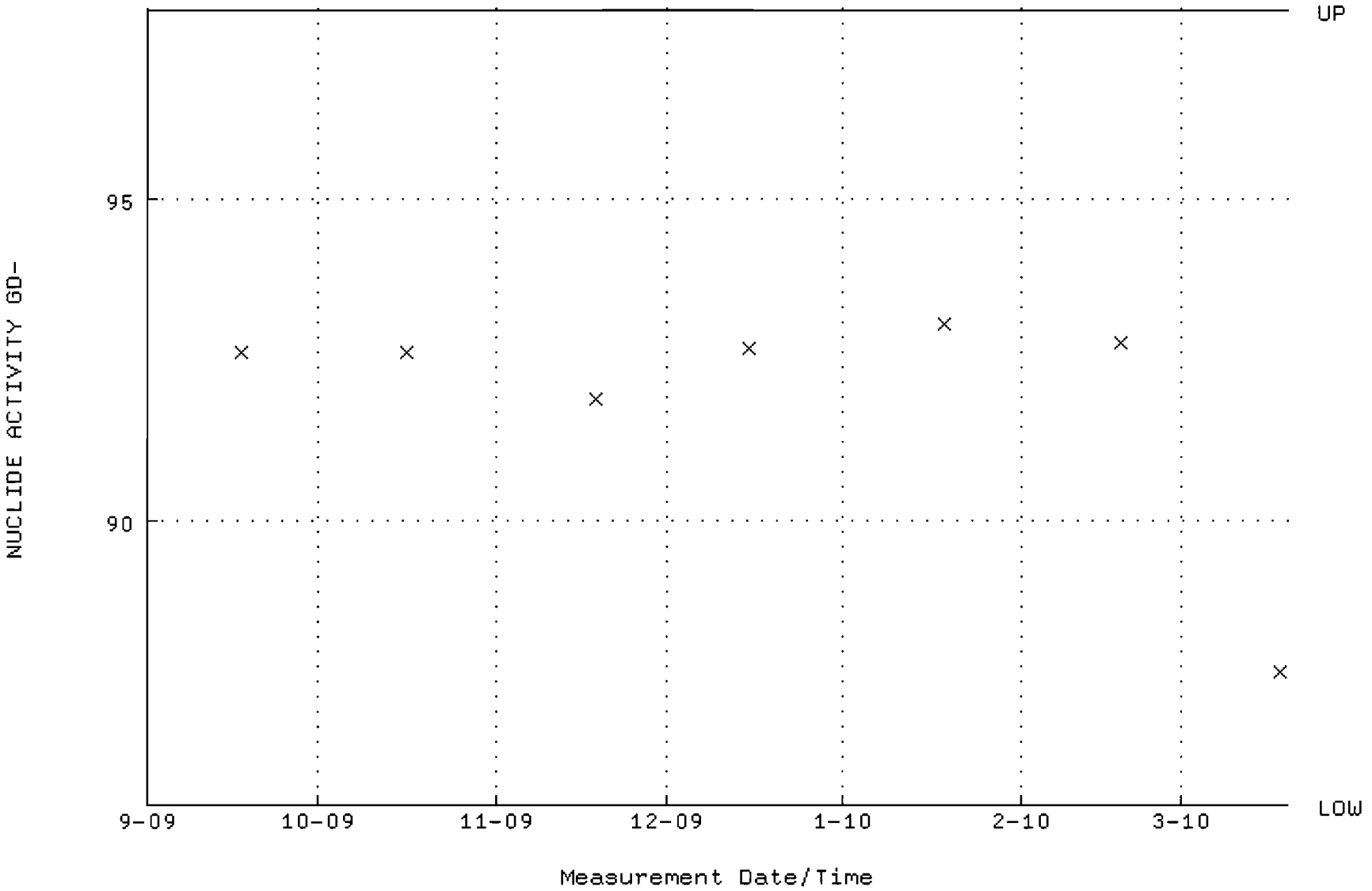
QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:56 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



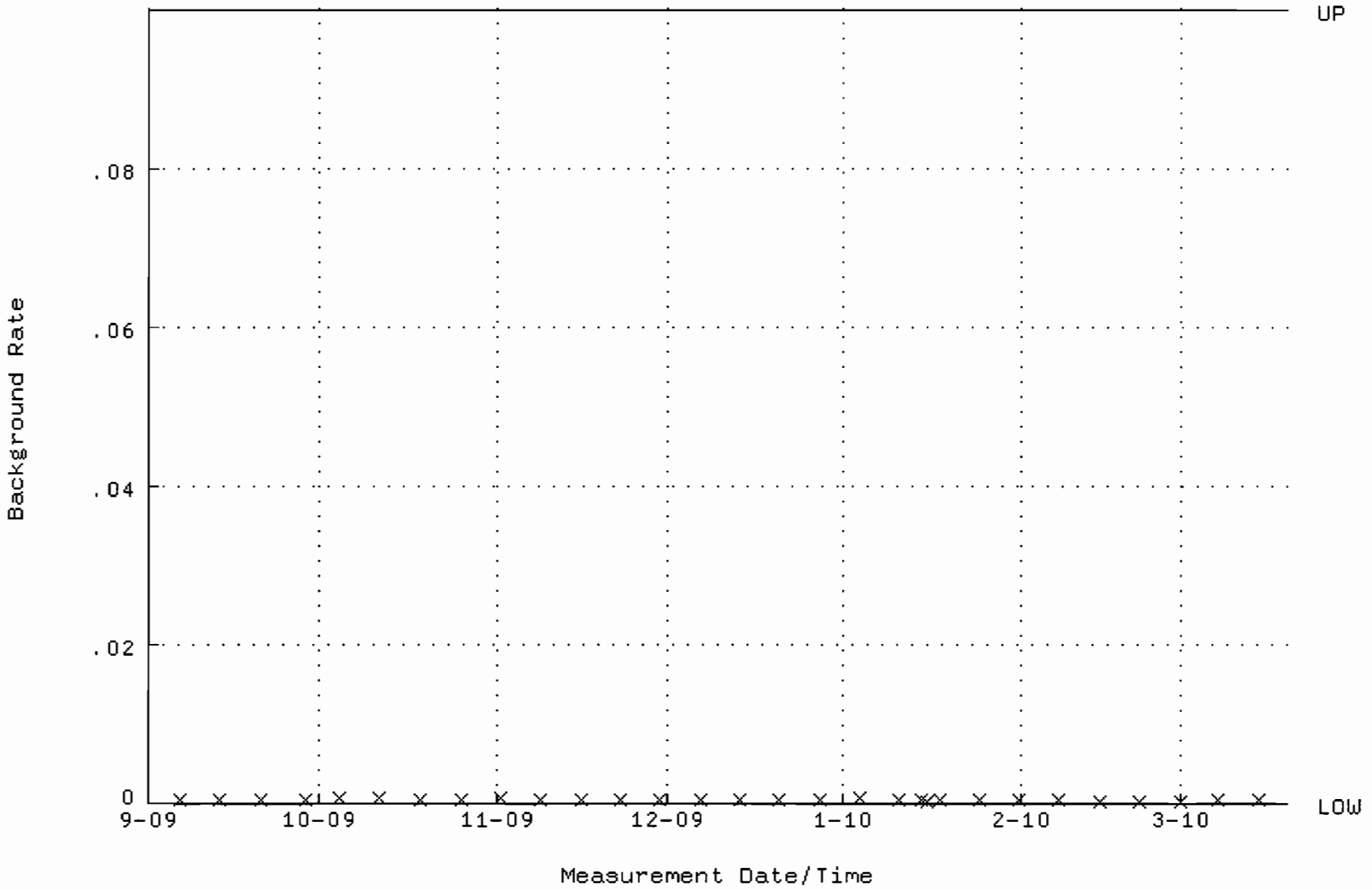
QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:54 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.244676 through 0.275622



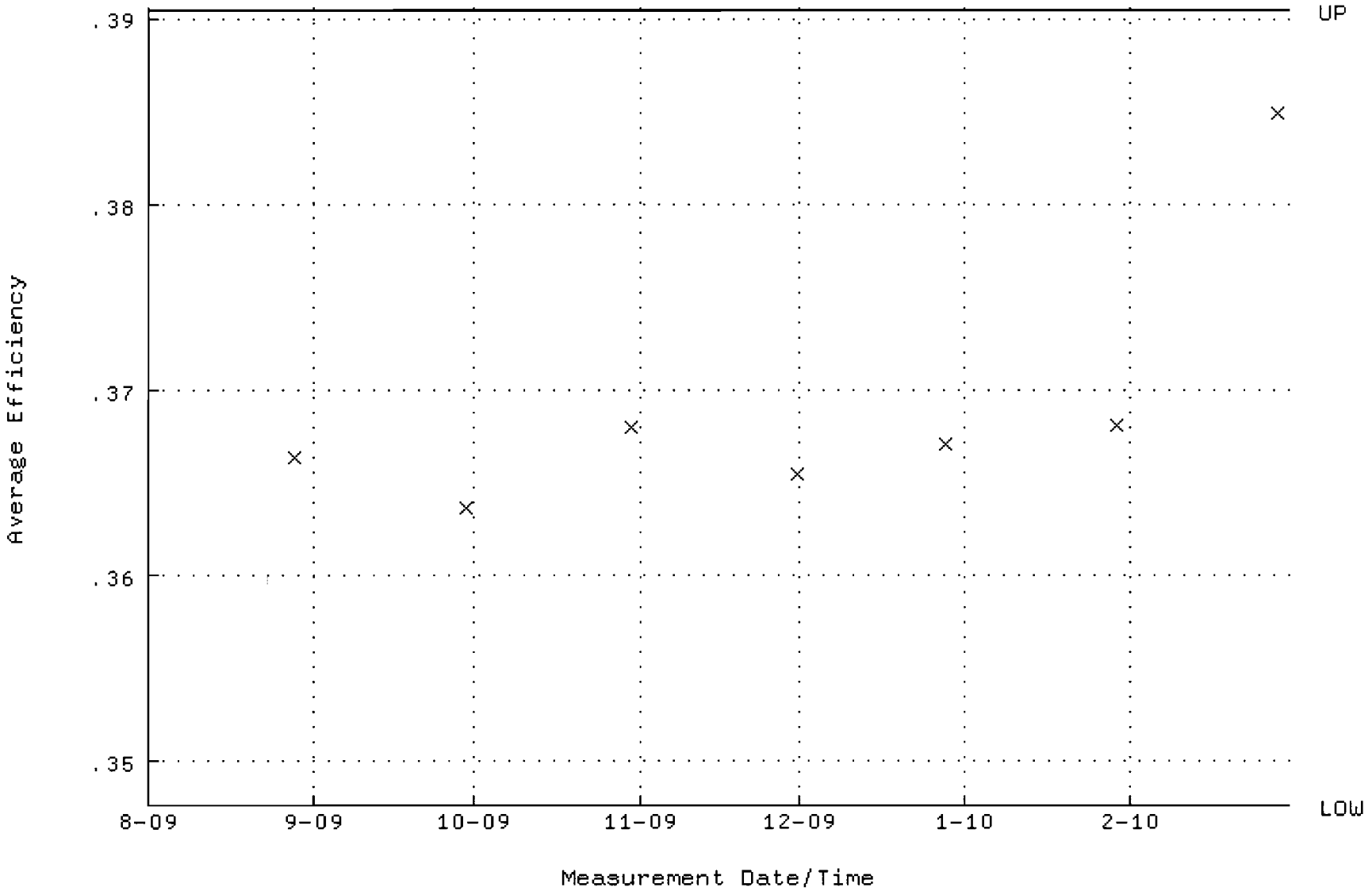
QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:54 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 85.5532 through 97.9632



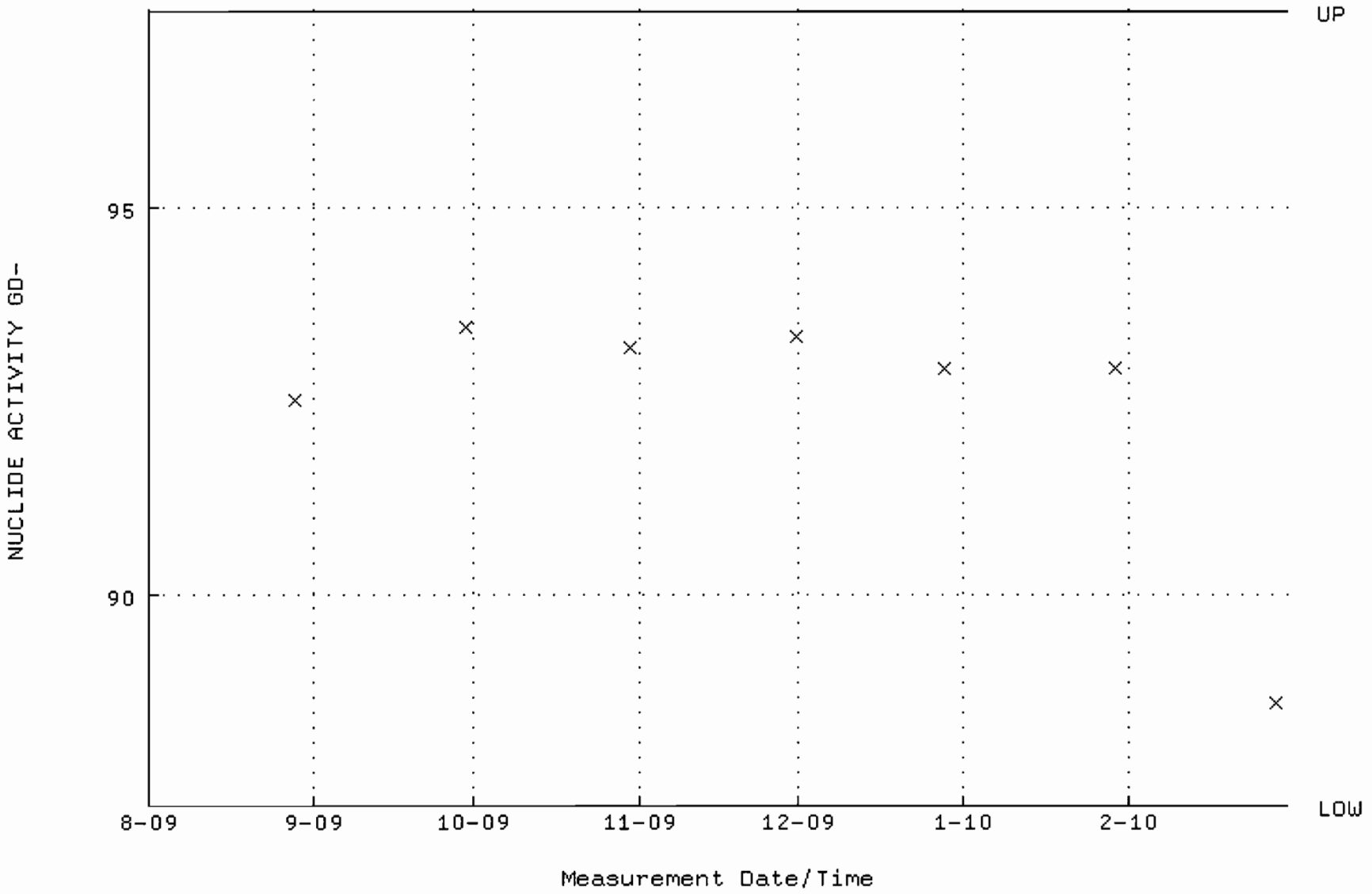
QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:01 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



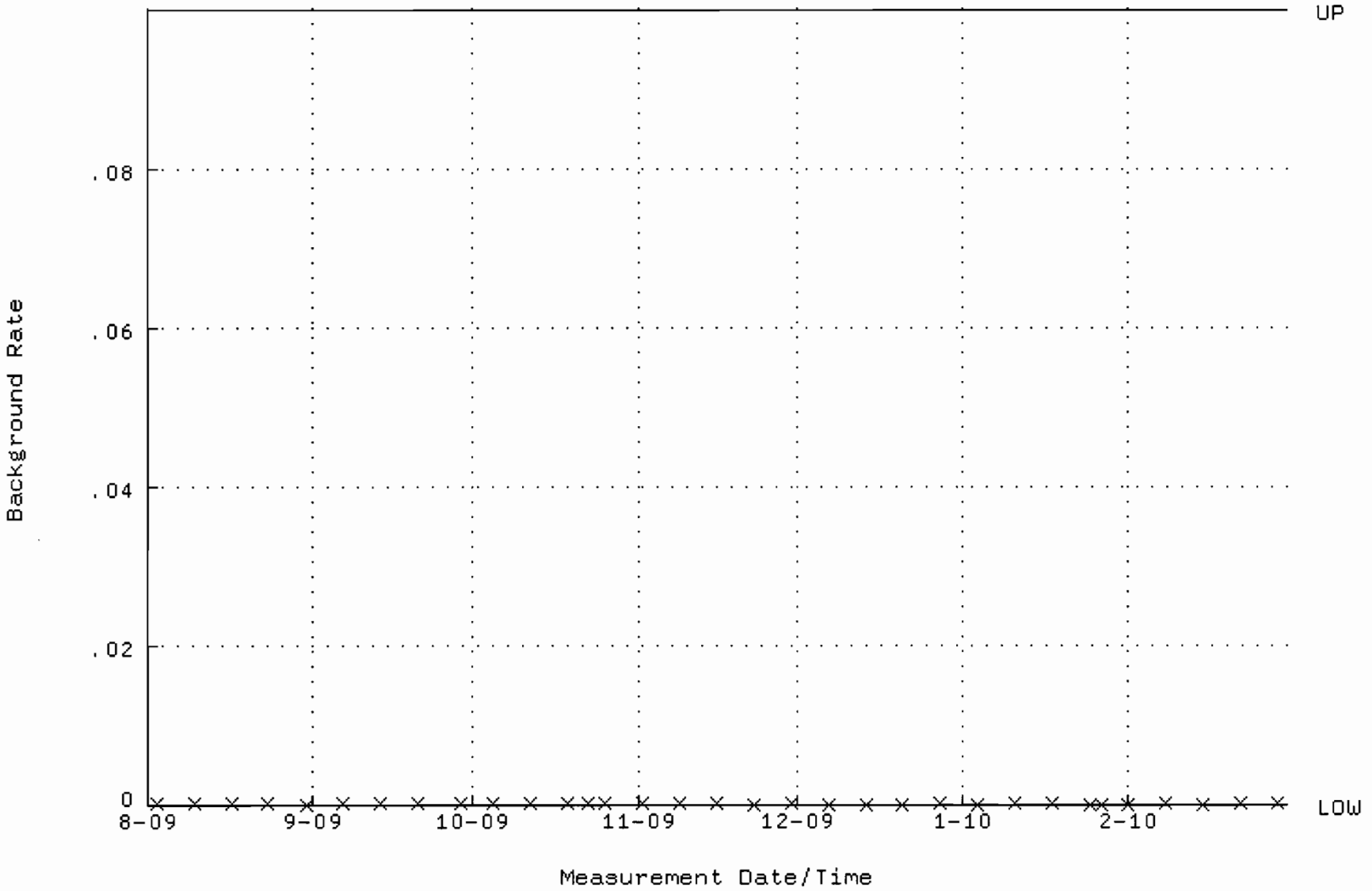
QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:09 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.347554 through 0.390494



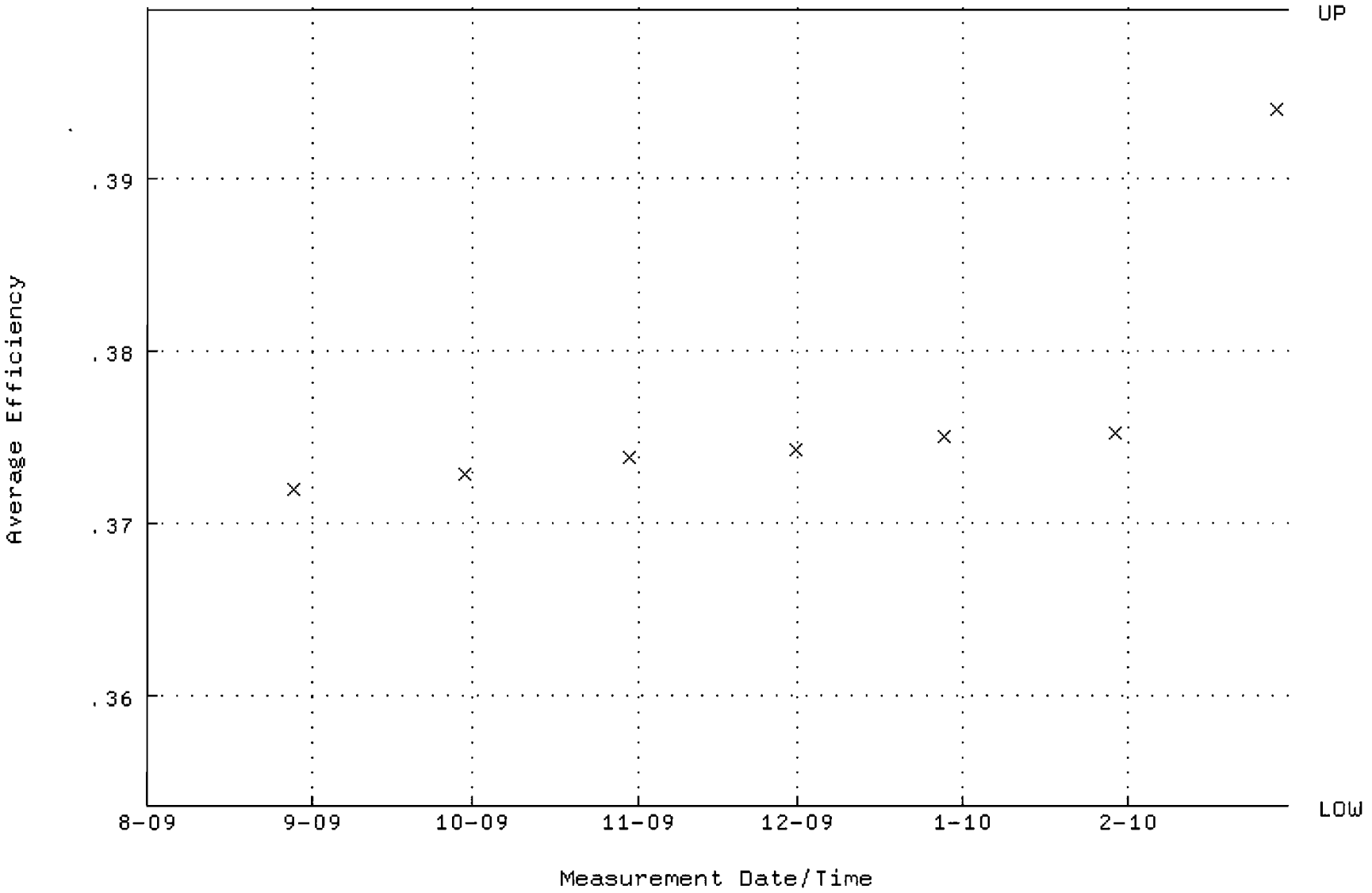
QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:09 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2610 through 97.5406



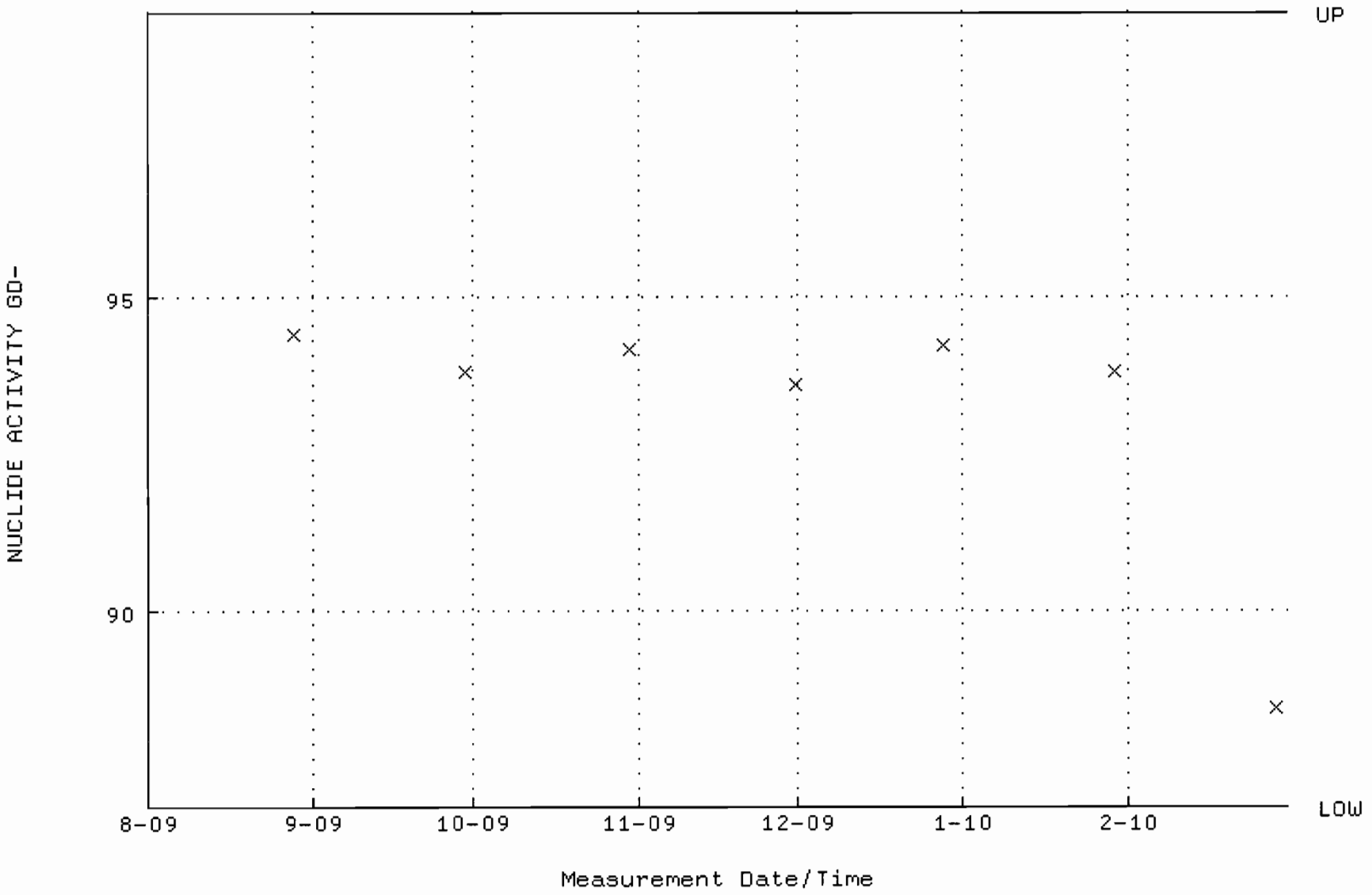
QA filename : DKA100:[ENV_ALPHA.QA.B]B217.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:44 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



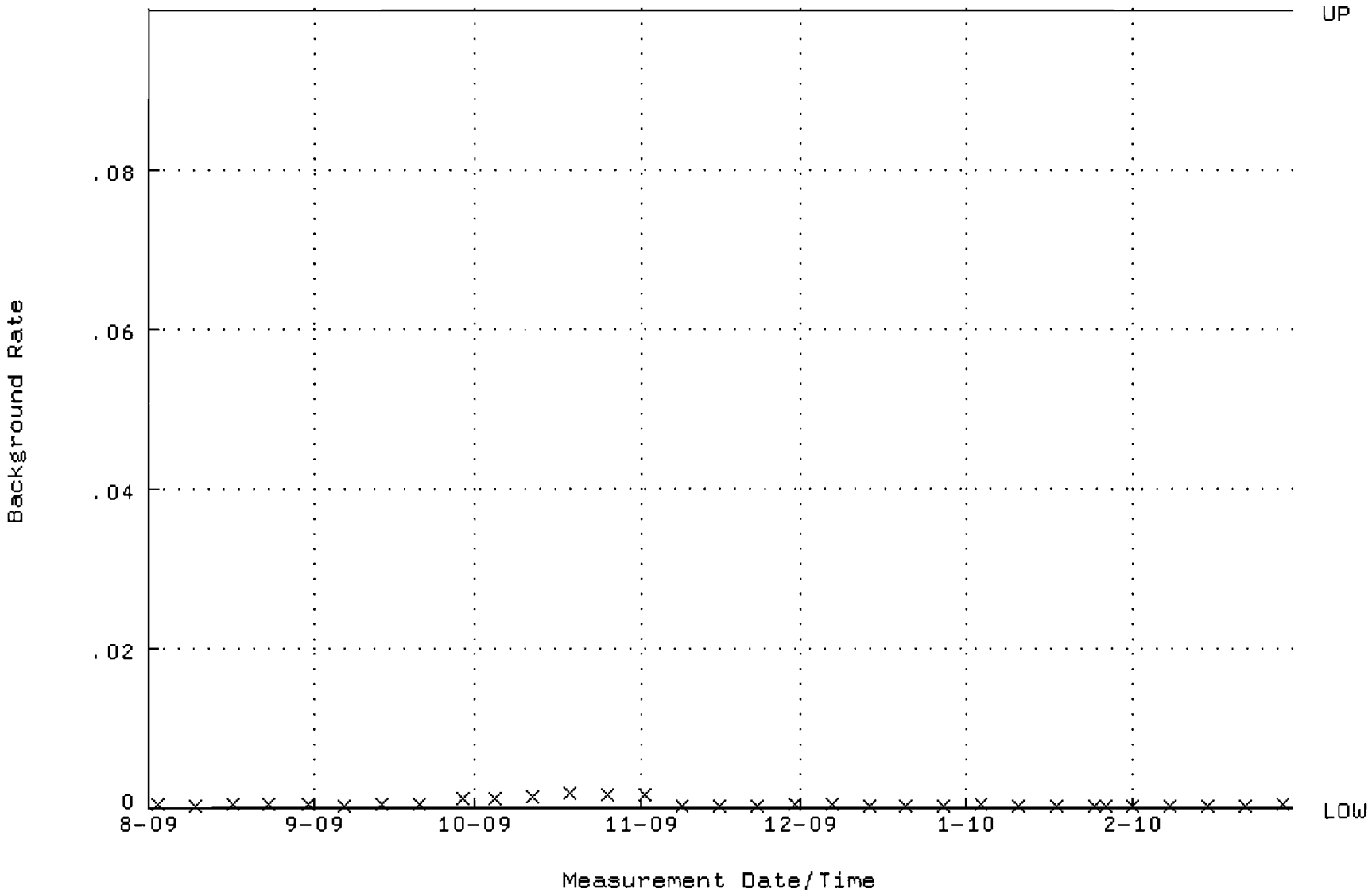
QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:14 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.353641 through 0.399809



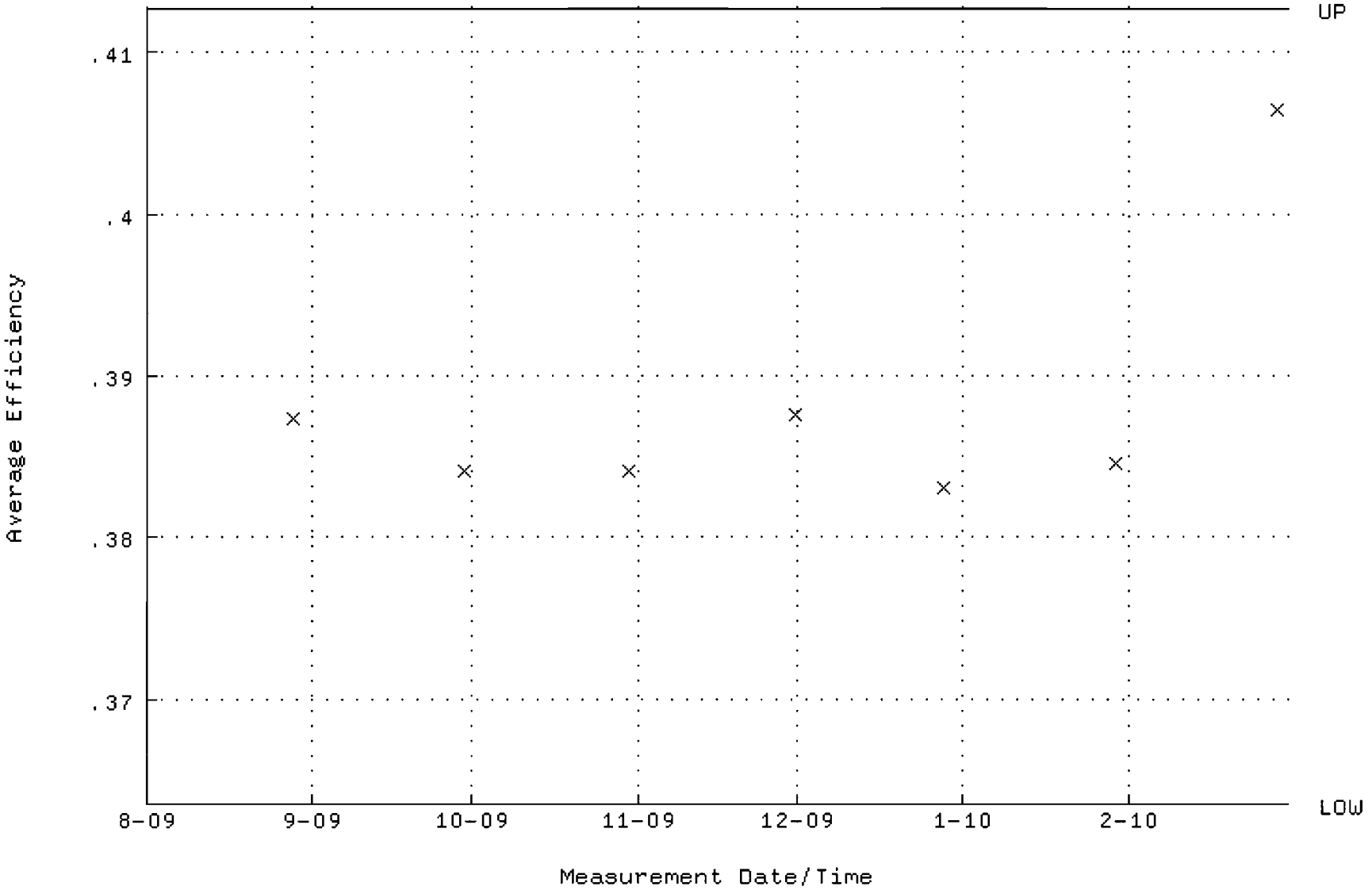
QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:14 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8733 through 99.5183



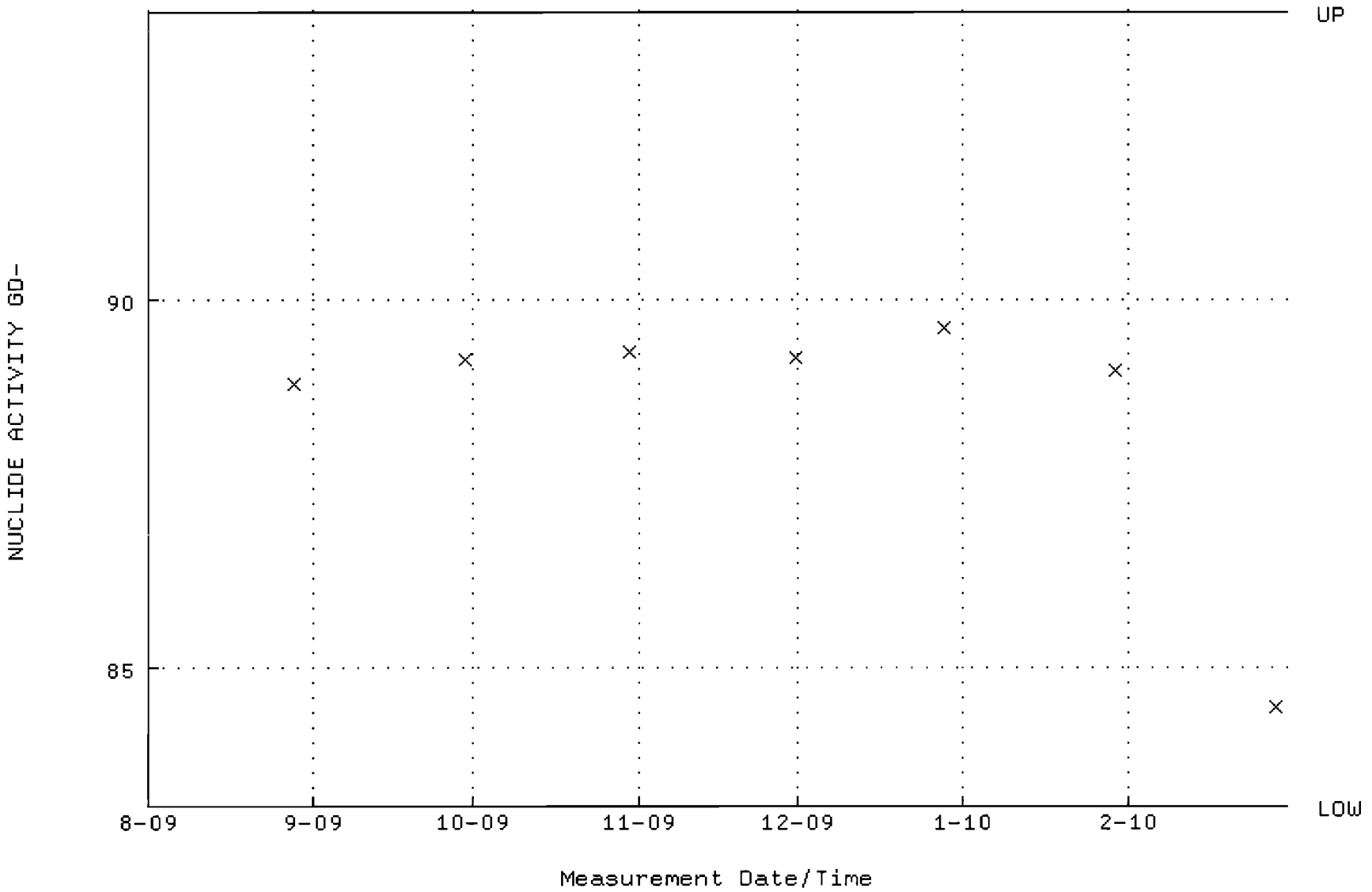
QA filename : DKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:48 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



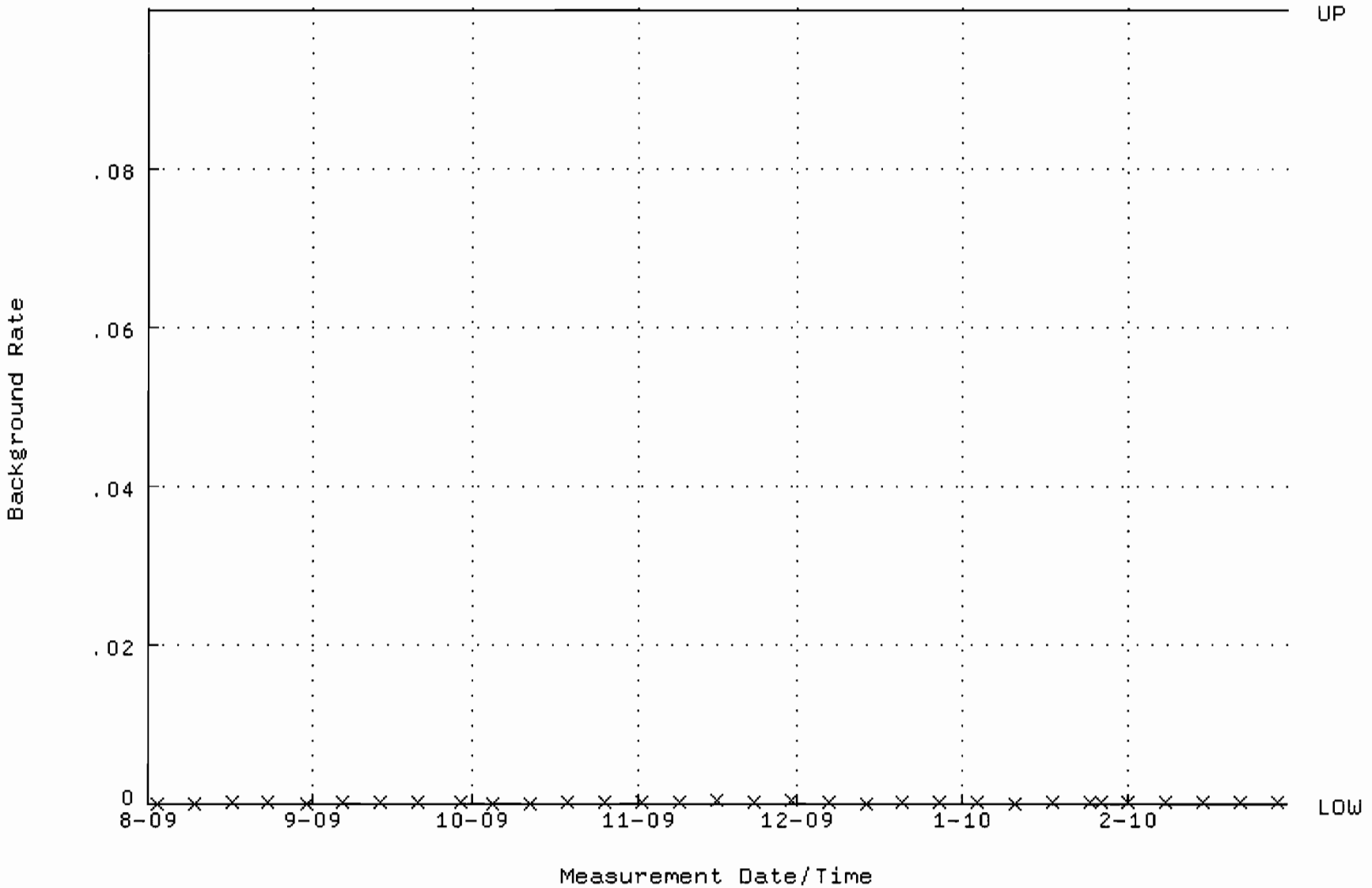
QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363471 through 0.412689



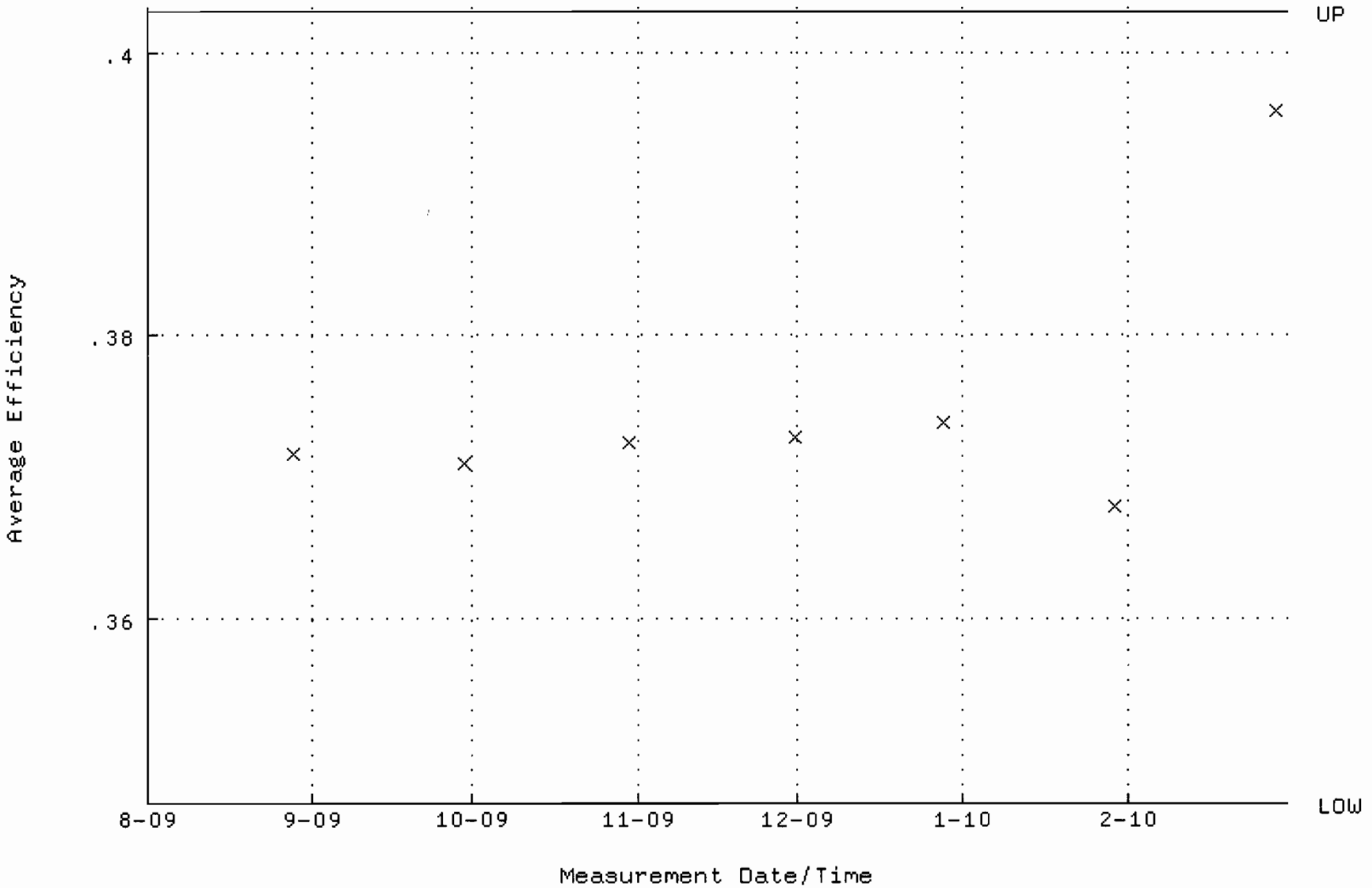
QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.1251 through 93.8923



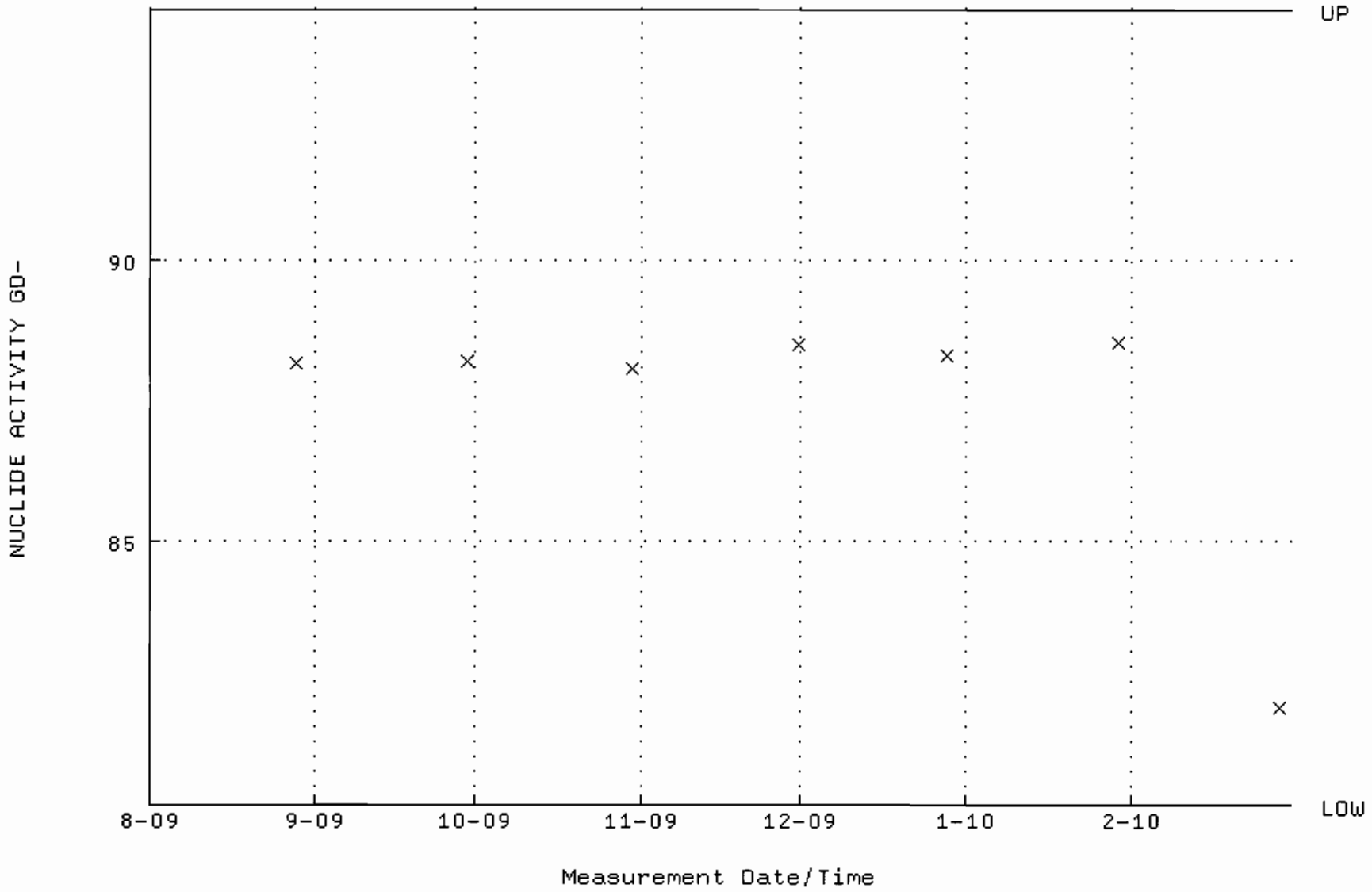
QA filename : DKA100:[ENV_ALPHA.QA.B]B219.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:52 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



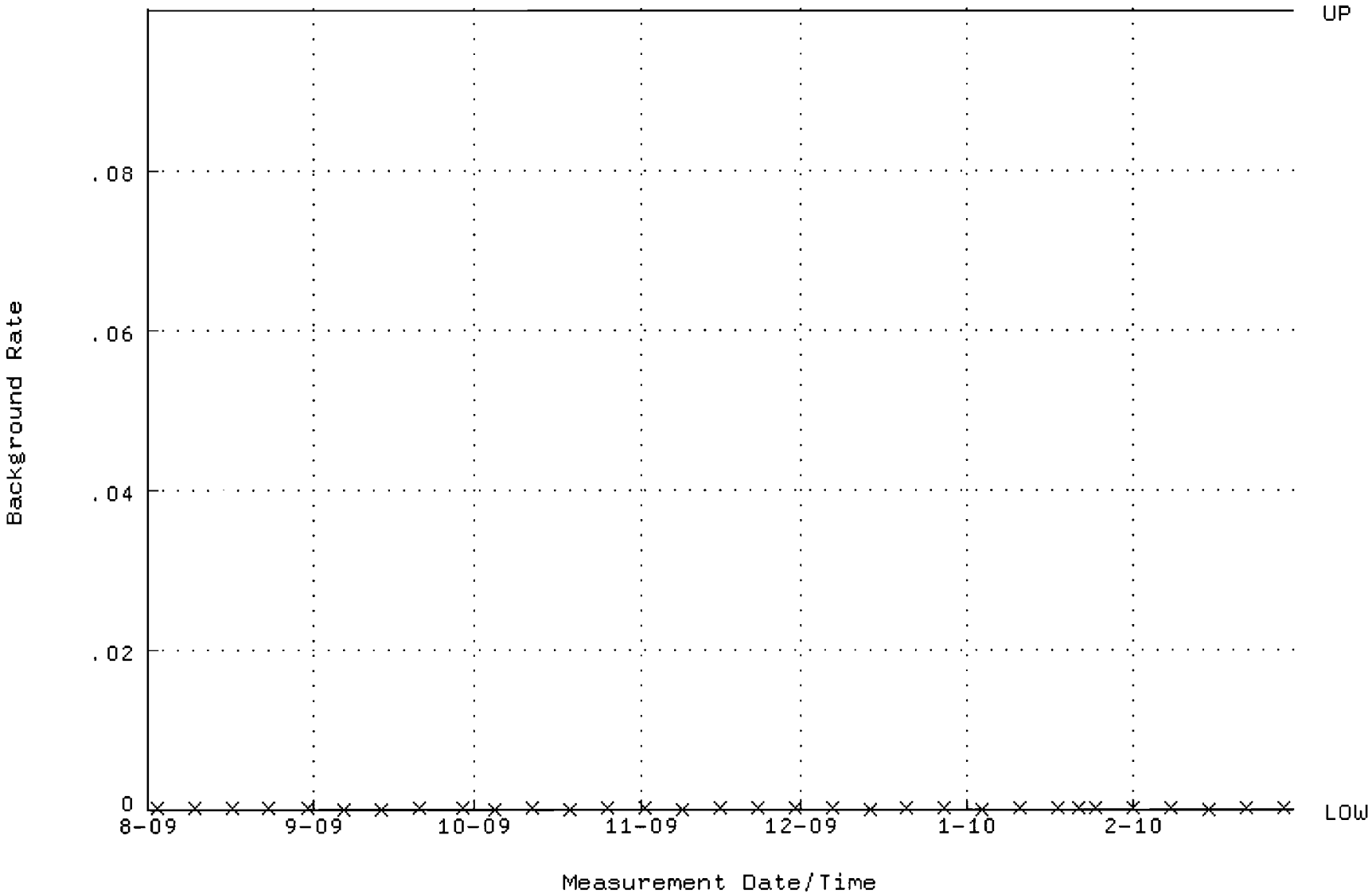
QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:09:32 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346871 through 0.403035



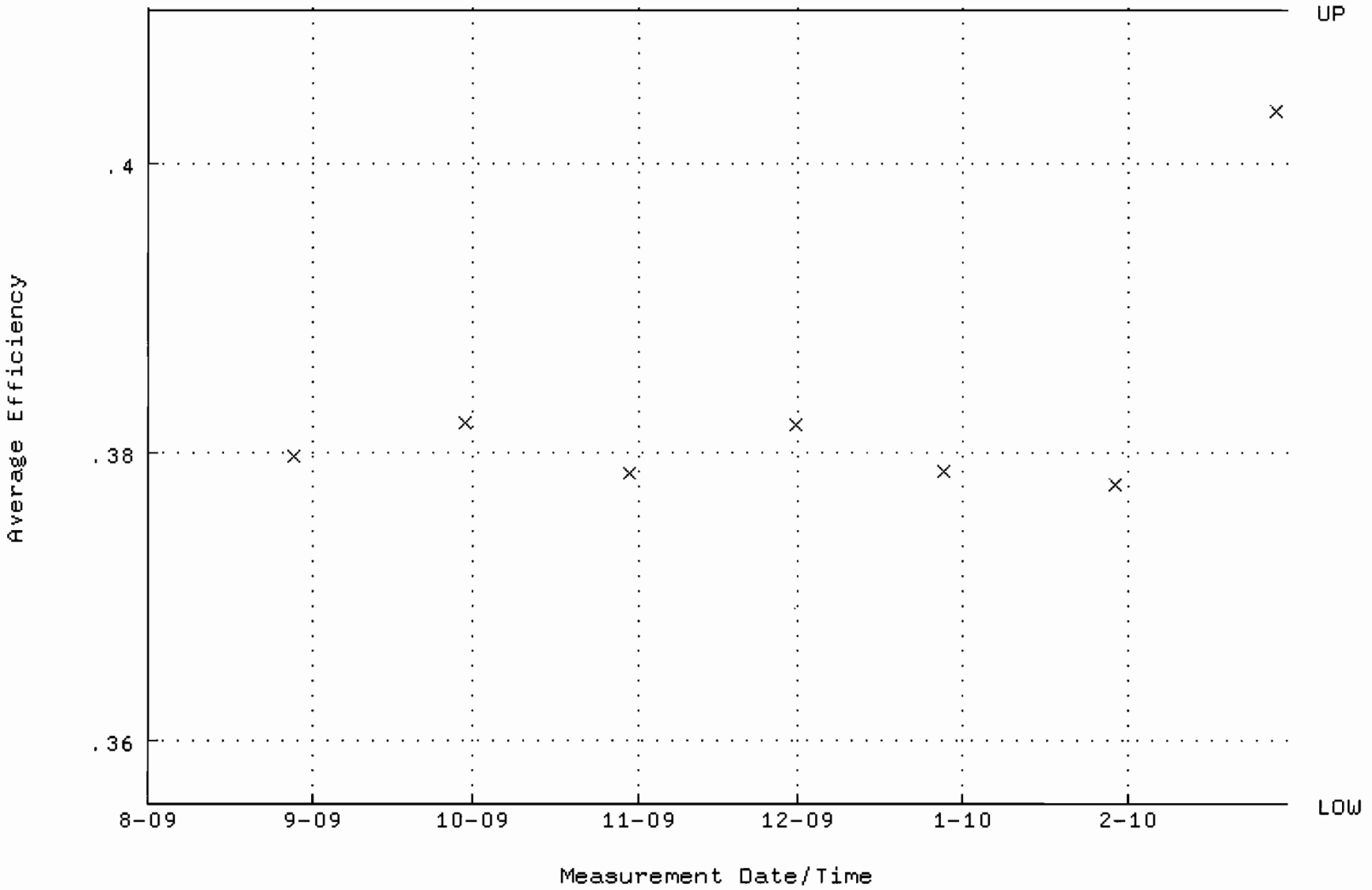
QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:09:32 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 80.2814 through 94.4734



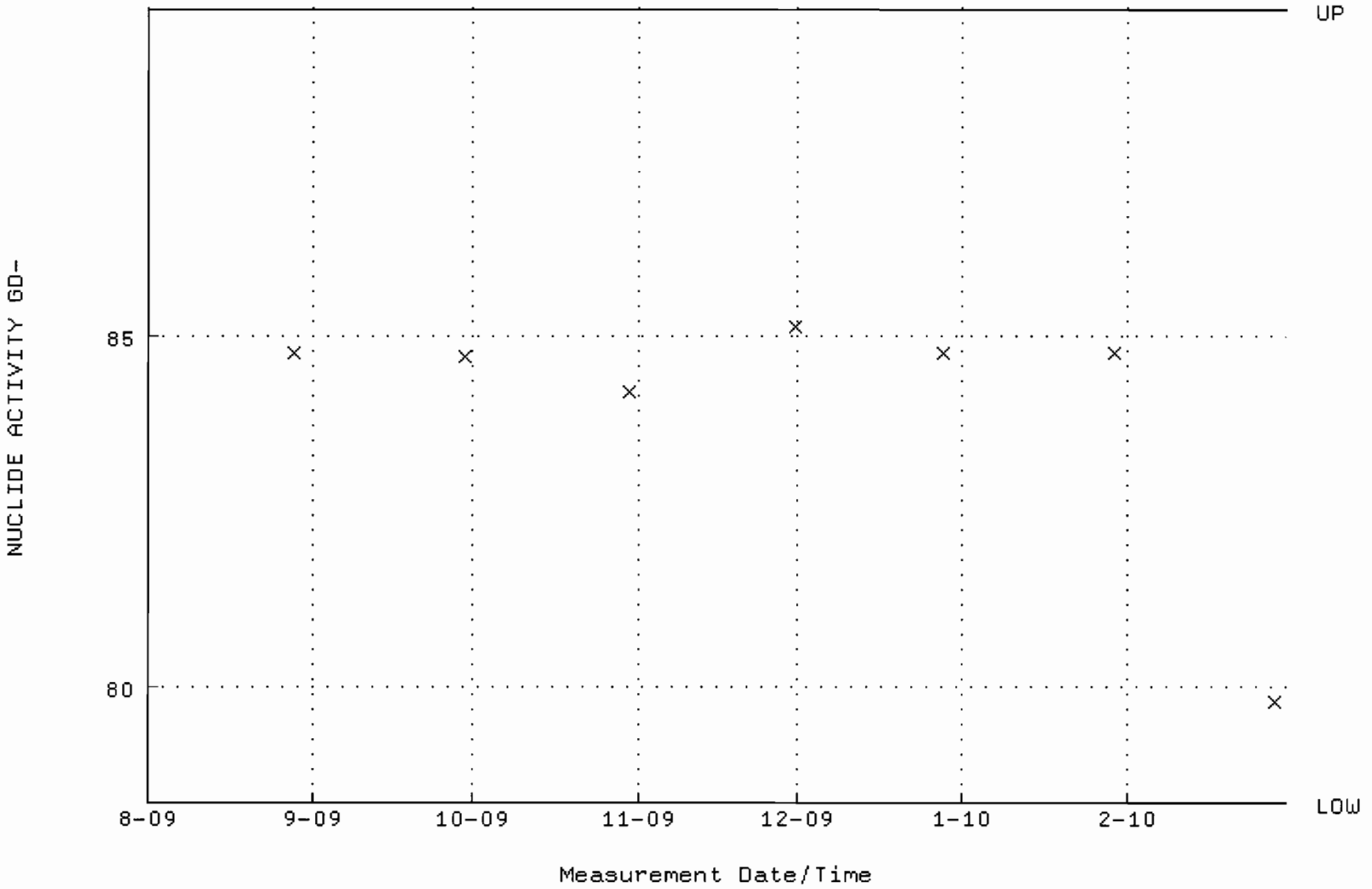
QA filename : DKA100:[ENV_ALPHA.QA.B]B244.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:27:40 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



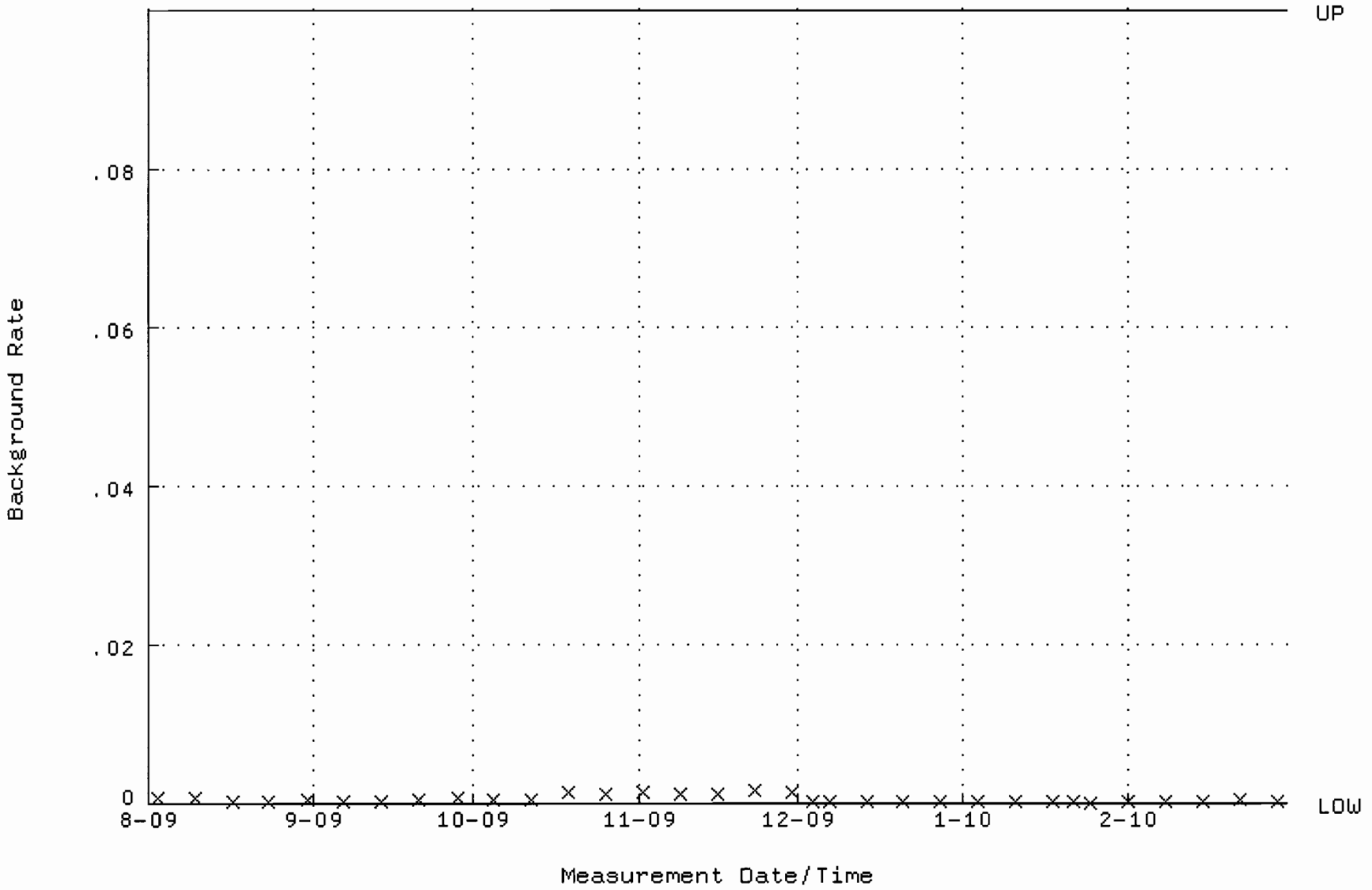
QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355610 through 0.410626



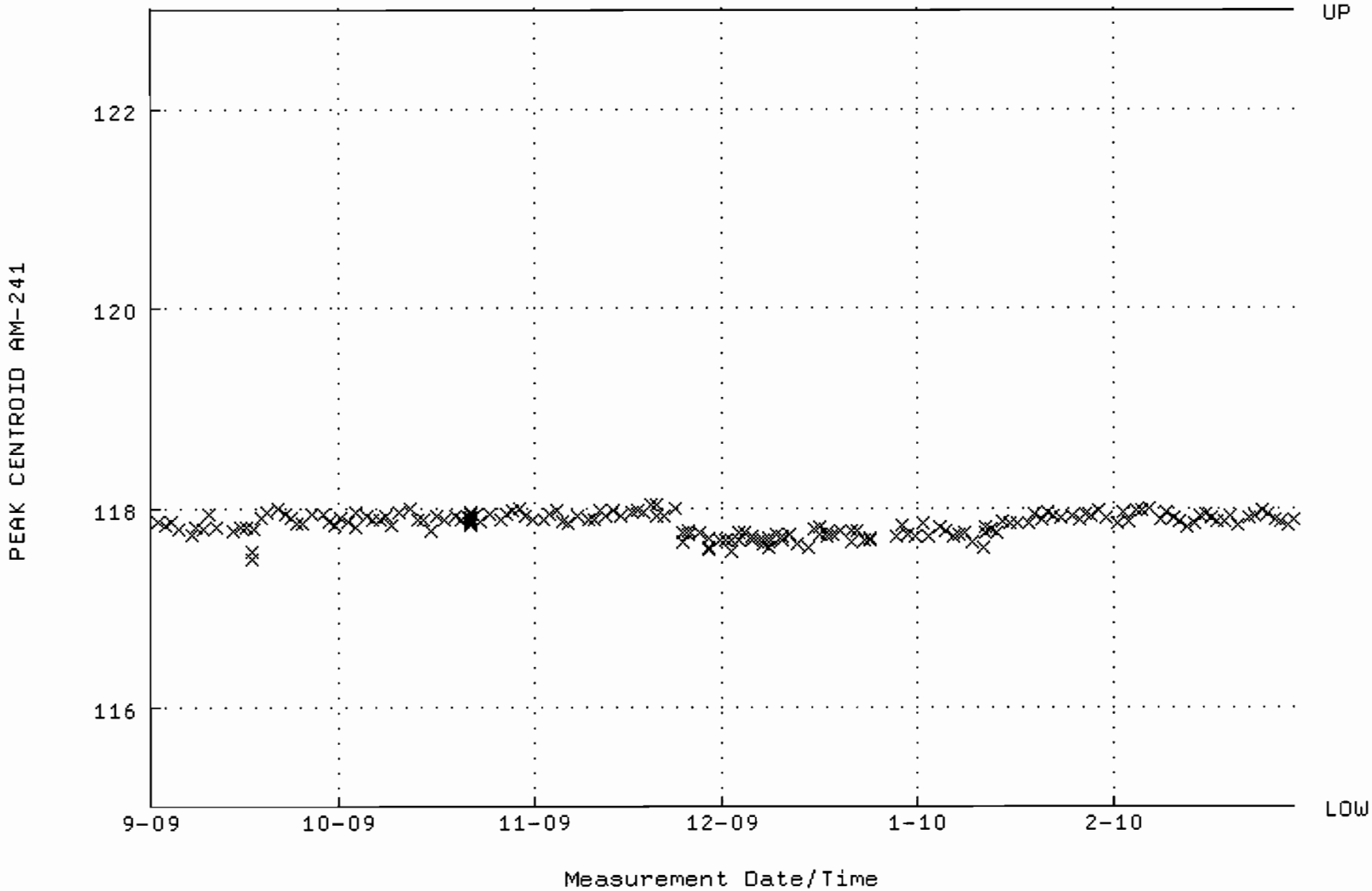
QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 78.3575 through 89.6335



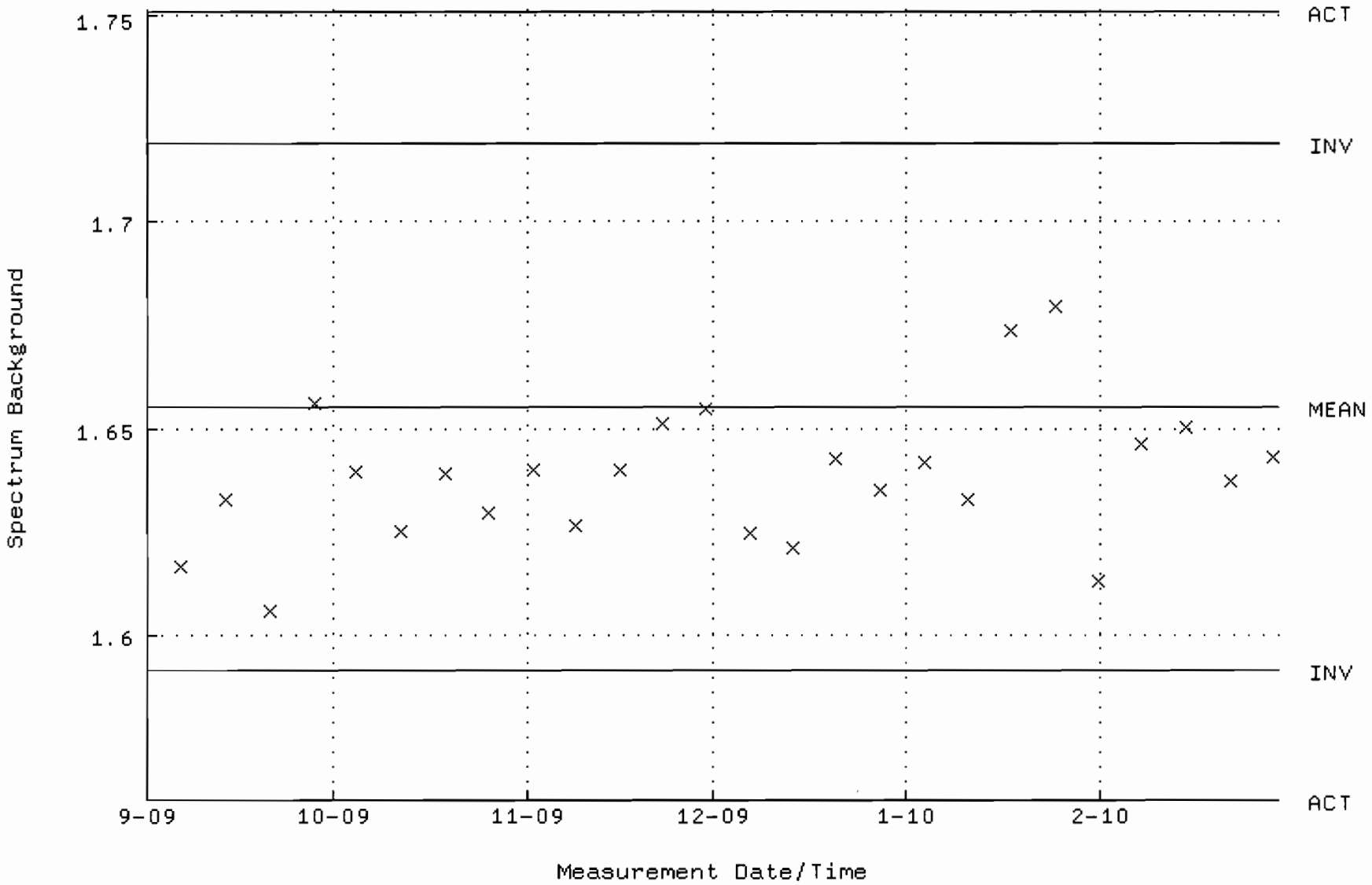
QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:28:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000



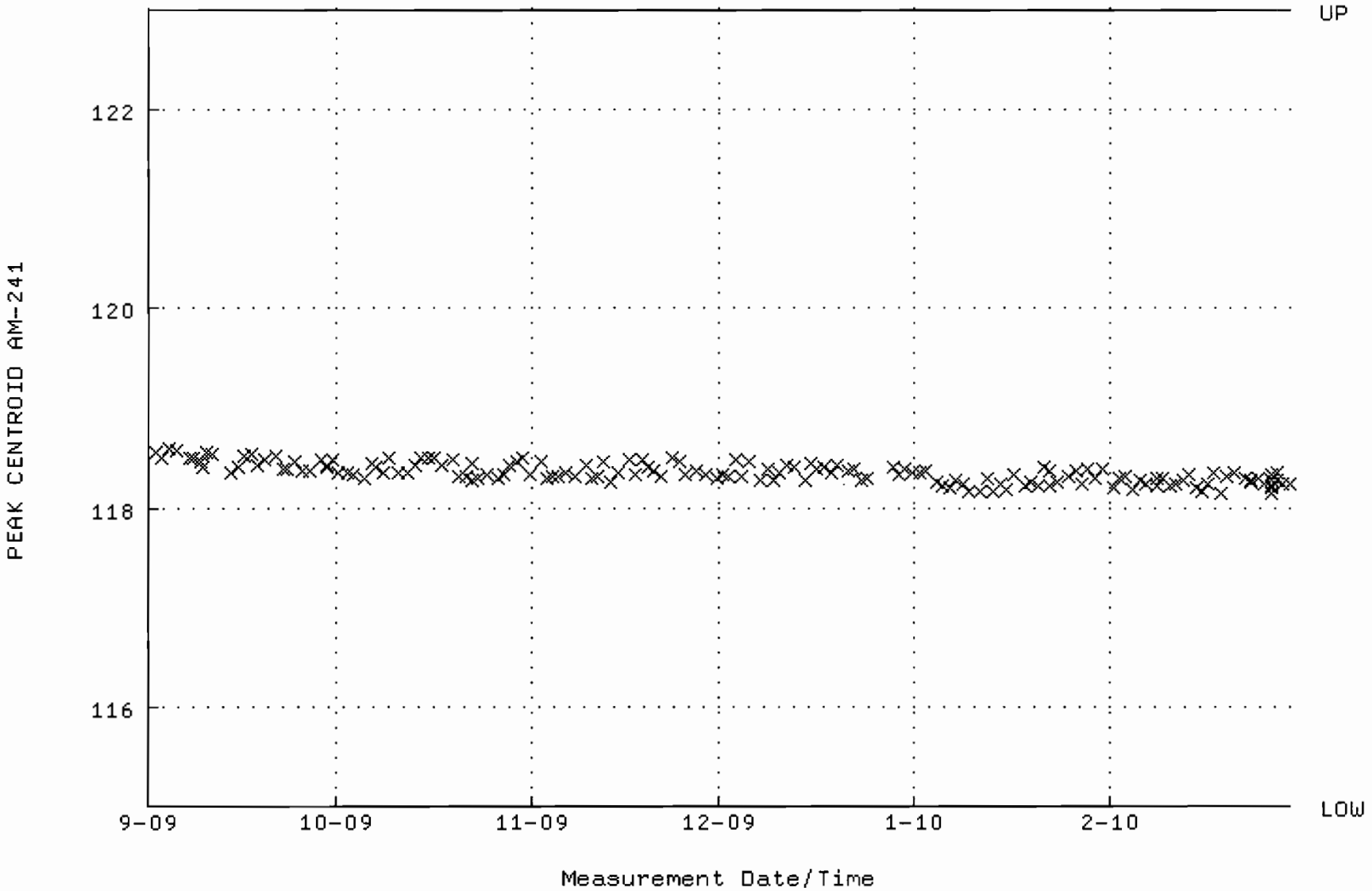
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:47:51 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



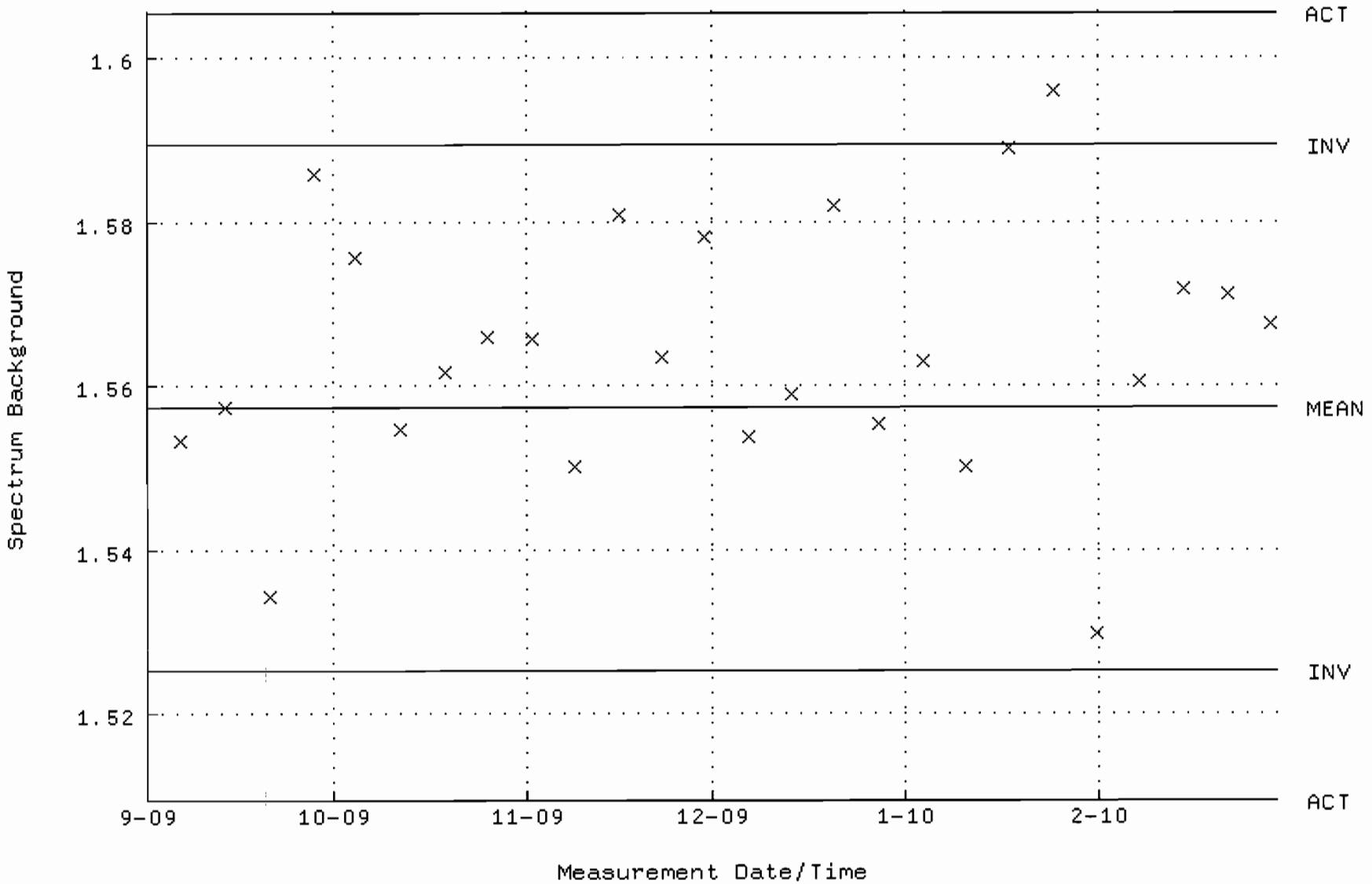
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:41:47 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)



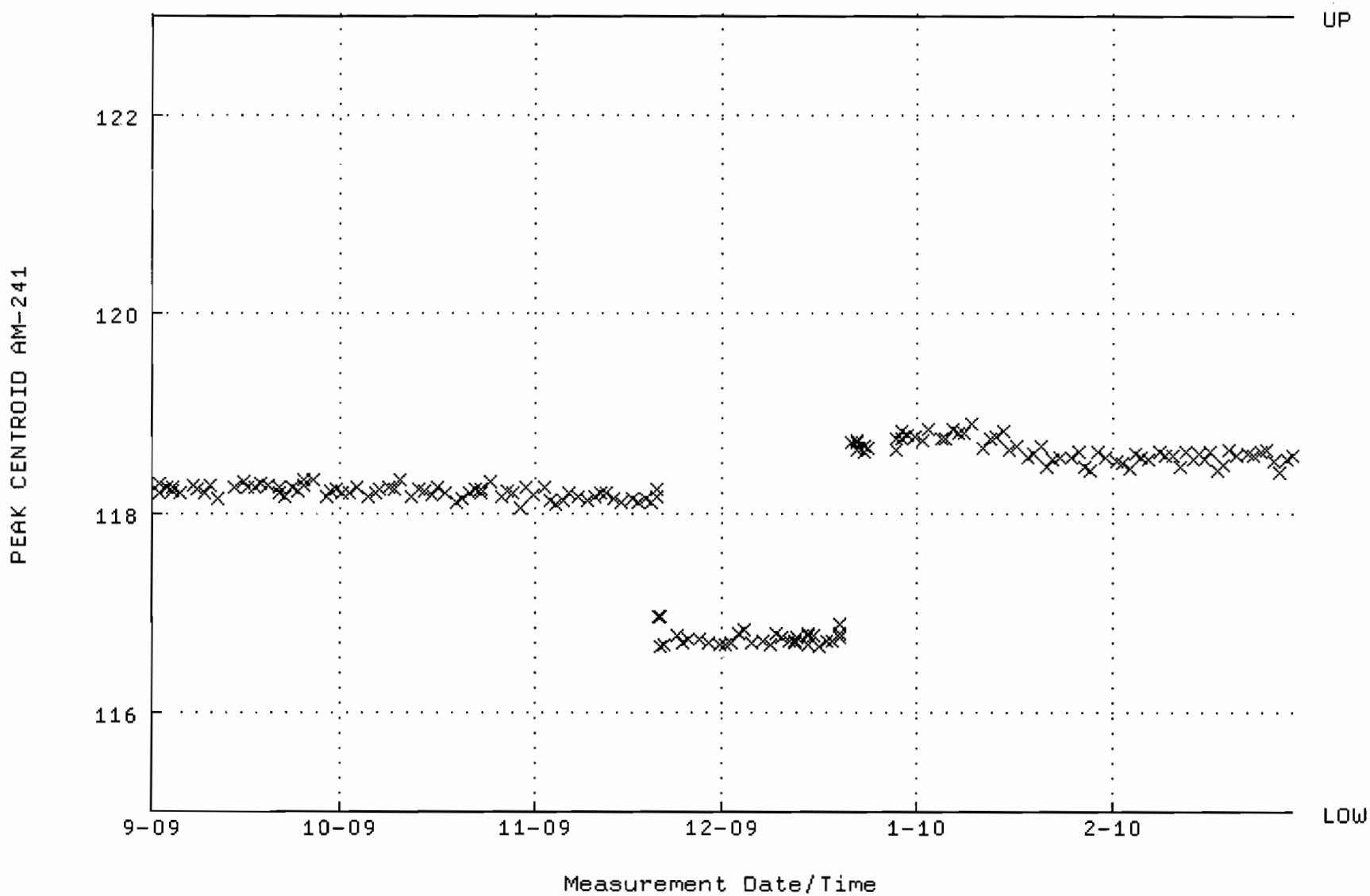
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 07:07:38 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



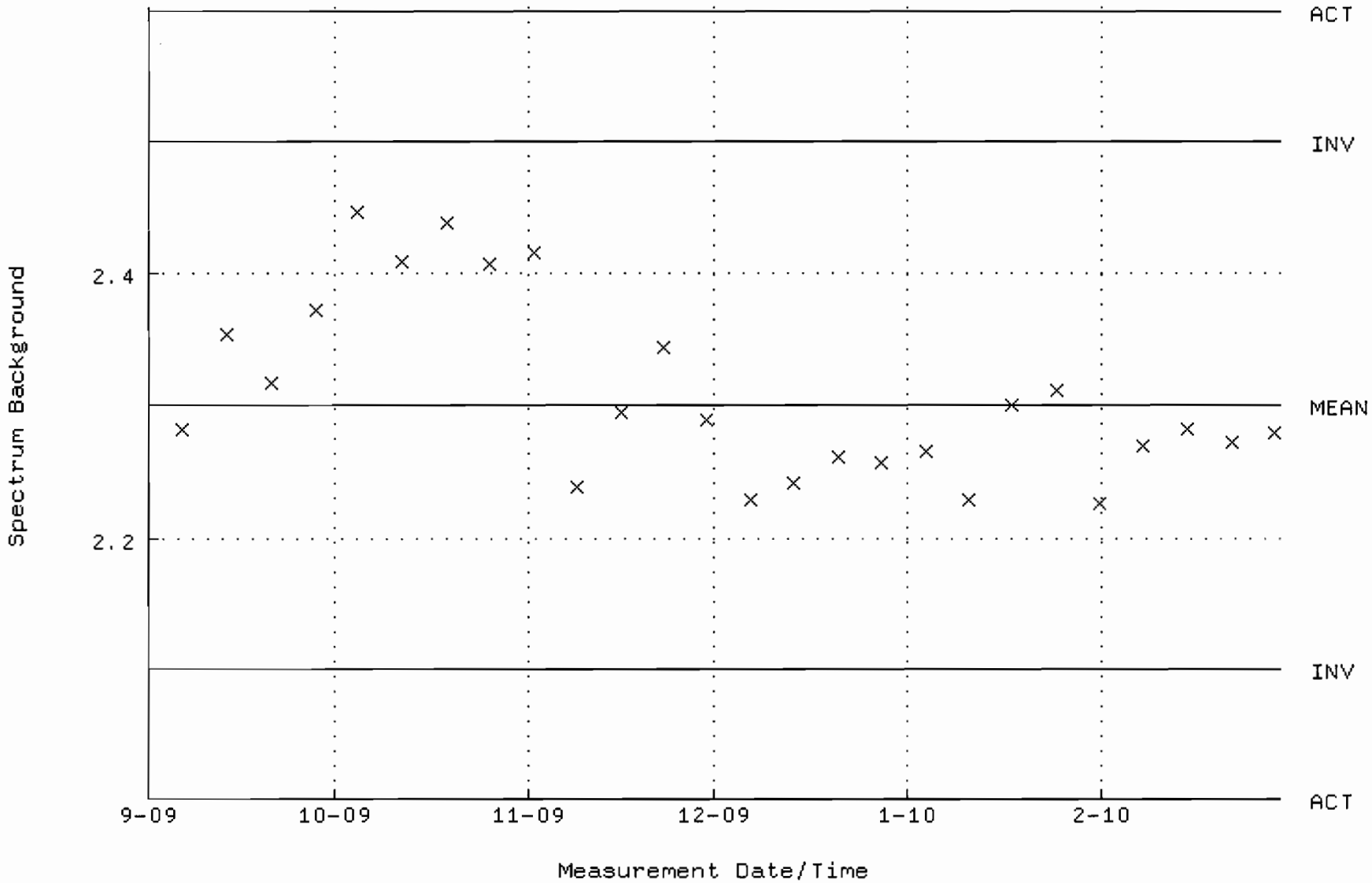
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:42:20 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)



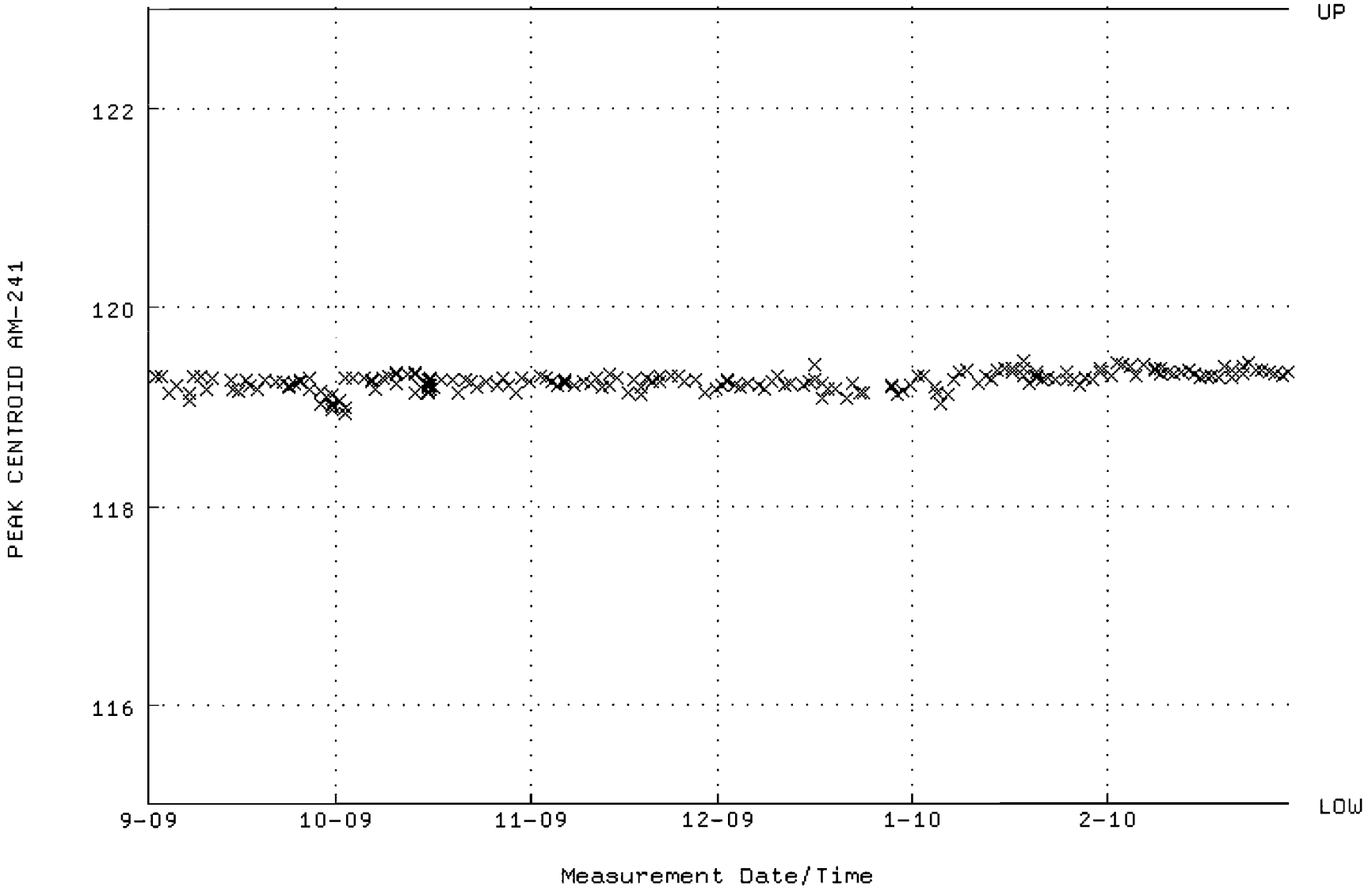
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



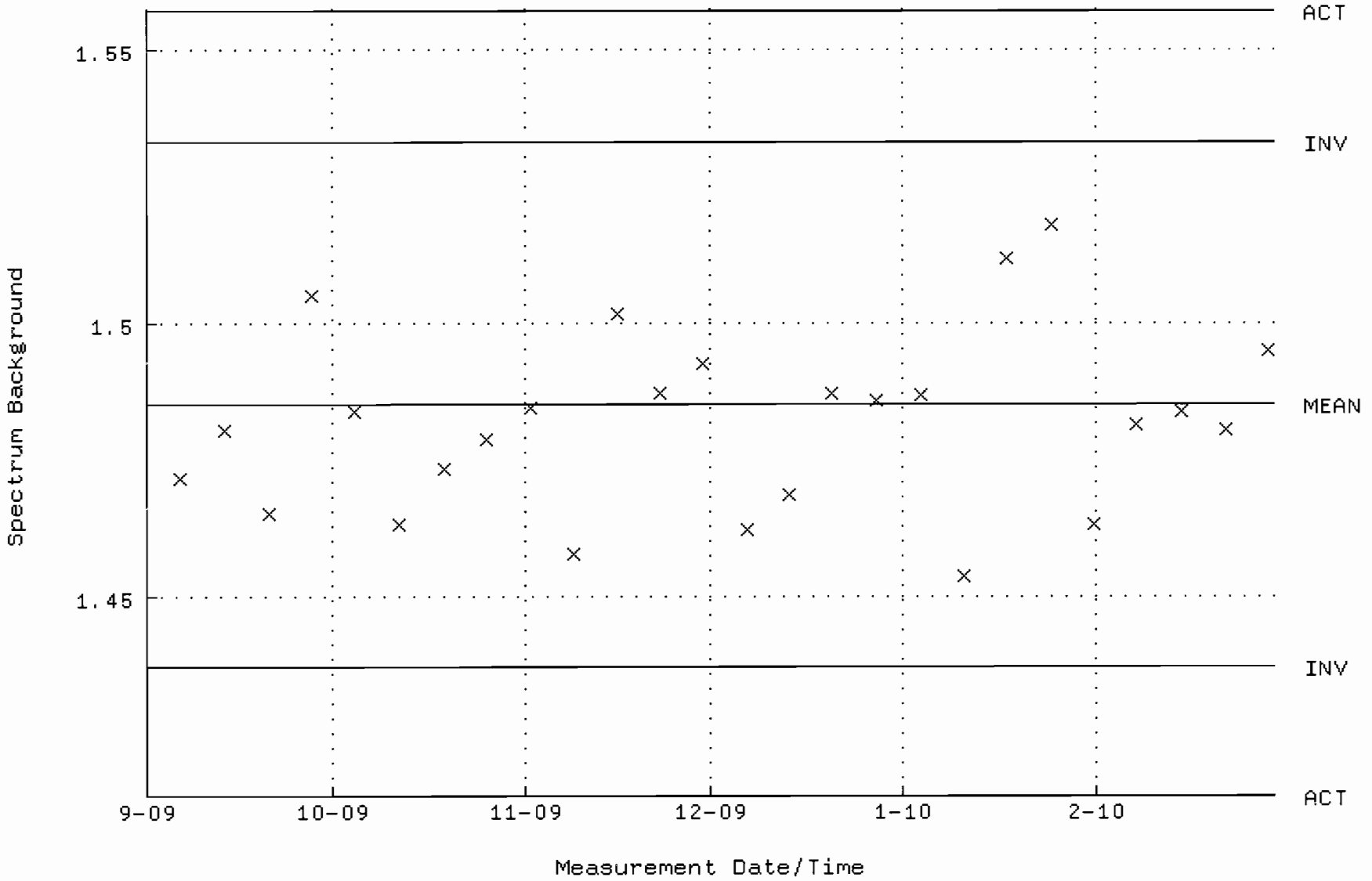
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)



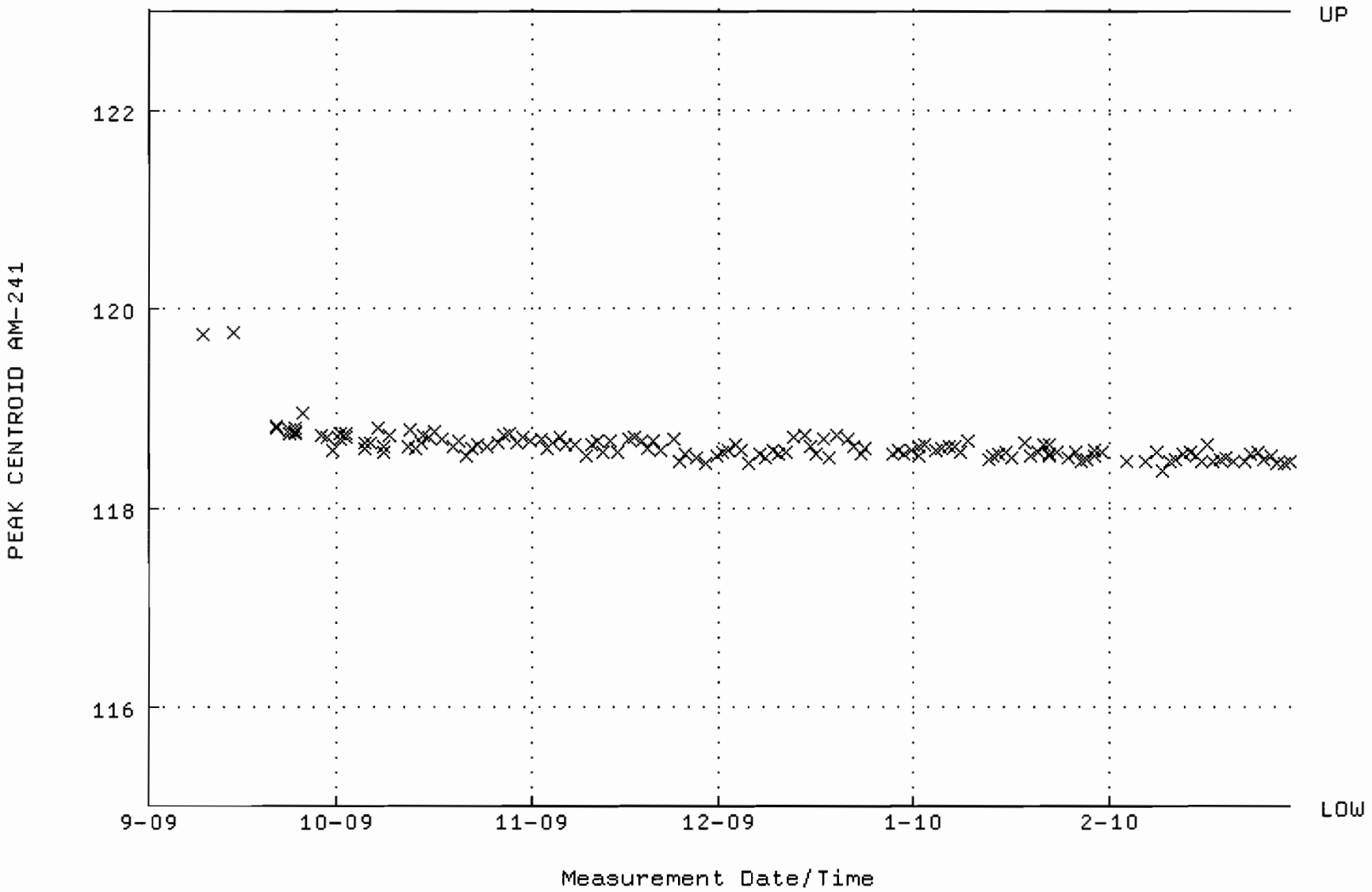
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:11 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000



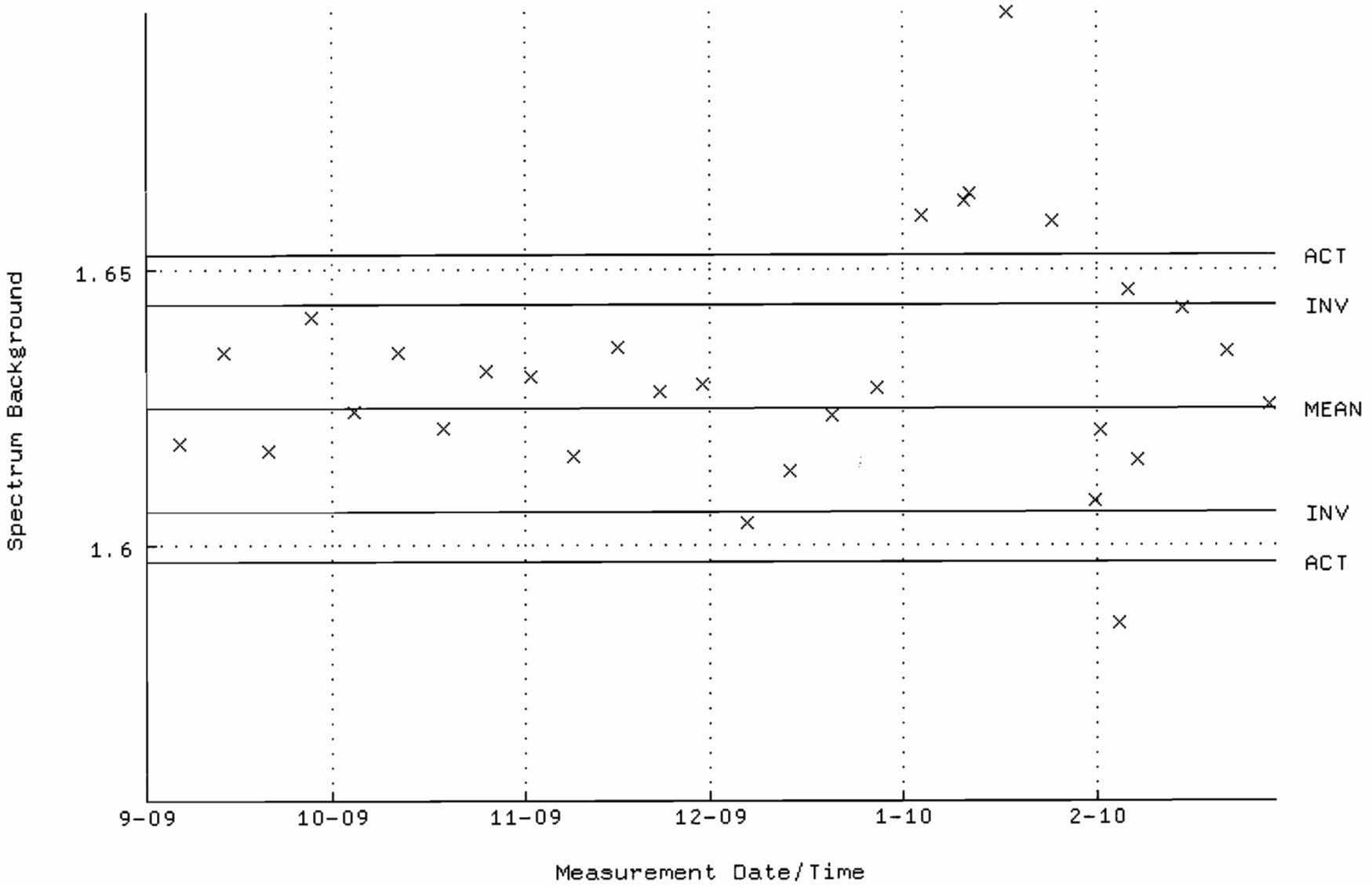
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:46:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

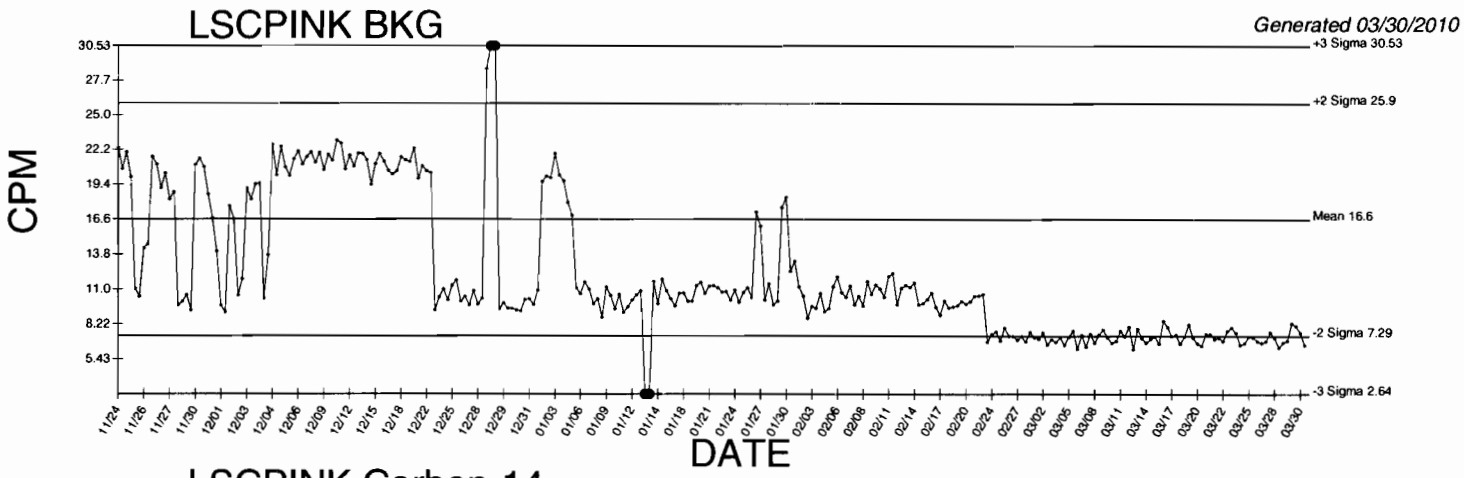


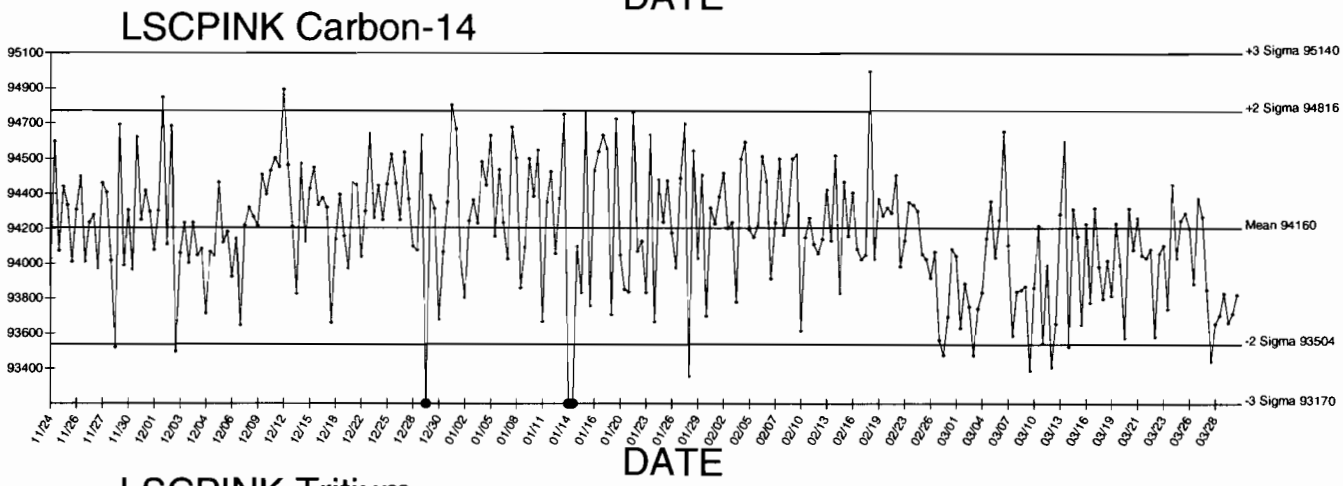
QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRO-59 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:18:34 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

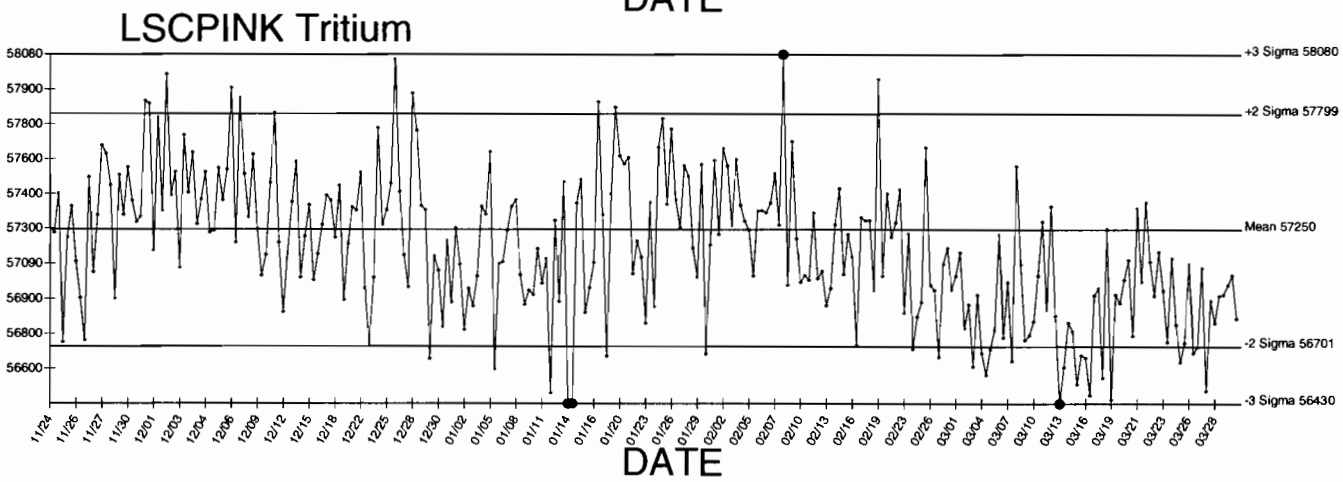


QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:47:27 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)









● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (µCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-023-061a

Amersham
The Health Science Group

WF Case

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	03/27/2009
Expiration Date:	03/11/2011
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/11/2010	03/11/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

G. Ramsay	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
3/11/2010	0134-K N1	1081.2000	38.6000	1042.6000	0.44203446	1.0000	2358.639627
	0134-K N2	1132.6000	38.6000	1094.0000	0.44203446	1.0000	2474.920154
	0134-K N3	1142.0000	38.6000	1103.4000	0.44203446	1.0000	2496.185464
						Average =	2443.248415
Mean Value (Counting) =	2443.248415		**99.4273605**	**Pass**			
Stdev =	74.04078992		0.03030424	**Rule 3 (Pass/Fail)**			

Certificate Value =	2457.32	dpm/mL
Lower Limit =	2295.166835	dpm/mL
Upper Limit =	2591.329995	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	148.0815798	dpm/mL
10 % of Mean =	244.3248415	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 1.0 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Brown for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 3/11/10 using 1222 A (H-3).
Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

3/18/10
3/18/10

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER-JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER-JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER-JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Scott C Neill 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped 11-16-99 SMO USE
Carrier/Waybill No. 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (LAB USE) SMO USE
Date Entered (mm/dd/yy)
Entered by
QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well decontaminated and materials being sent to GEL on behalf of Hack Minister
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date	
1. Received by	Org.	Date	Time	4. Received by	Org.	Date	
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date	
2. Received by	Org.	Date	Time	5. Received by	Org.	Date	
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date	
3. Received by	Org.	Date	Time	6. Received by	Org.	Date	

1. Relinquished by: Org. 877 Date 11-16-99 Time 0900

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1/3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI
Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒ Normal ☐ Rush Required Report Date
QC limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

	Org.	Date	Time		Org.	Date
1. Relinquished by: DEP	7577	11-16-99	0900	4. Relinquished by		
1. Received by				4. Received by		
2. Relinquished by				5. Relinquished by		
2. Received by				5. Received by		
3. Relinquished by				6. Relinquished by		
3. Received by				6. Received by		

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Allen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11/12/09 AWS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by: Cr Gll

DAP

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/01/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/01/2010	03/01/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

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Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 961099**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status		Geometry	Calibration Date
248515001	SAMPLE	MXR1	GAM01	19-MAR-10 20:40	DONE	CAN		12-JAN-10 00:00
248515002	SAMPLE	MXR1	GAM05	19-MAR-10 20:40	DONE	CAN		11-JUN-09 00:00
248515003	SAMPLE	MXR1	GAM17	19-MAR-10 20:40	DONE	CAN		06-JAN-10 00:00
248517001	SAMPLE	MXR1	GAM18	19-MAR-10 20:41	DONE	CAN		23-APR-09 00:00
248521001	SAMPLE	MXR1	GAM19	19-MAR-10 20:42	DONE	CAN		12-MAR-09 00:00
248521002	SAMPLE	MXR1	GAM22	19-MAR-10 20:42	DONE	CAN		02-DEC-09 00:00
248521003	SAMPLE	MXR1	GAM23	19-MAR-10 20:43	DONE	CAN		02-JUN-09 00:00
248526001	SAMPLE	MXR1	GAM25	19-MAR-10 20:43	DONE	CAN		07-OCT-09 00:00
248521004	SAMPLE	MXR1	GAM05	19-MAR-10 23:11	DONE	CAN		11-JUN-09 00:00
248521005	SAMPLE	MXR1	GAM20	19-MAR-10 23:11	DONE	CAN		26-AUG-09 00:00
248521006	SAMPLE	MXR1	GAM22	19-MAR-10 23:12	DONE	CAN		02-DEC-09 00:00
248521007	SAMPLE	MXR1	GAM23	19-MAR-10 23:12	DONE	CAN		02-JUN-09 00:00
248521008	SAMPLE	MXR1	GAM06	19-MAR-10 23:14	DONE	CAN		16-FEB-10 00:00
248521009	SAMPLE	MXR1	GAM21	19-MAR-10 23:15	DONE	CAN		28-JUL-09 00:00
248521010	SAMPLE	MXR1	GAM05	20-MAR-10 11:10	DONE	CAN		11-JUN-09 00:00
248521011	SAMPLE	MXR1	GAM06	20-MAR-10 11:10	DONE	CAN		16-FEB-10 00:00
1202061469	MB	MXR1	GAM11	20-MAR-10 11:11	DONE	CAN		18-NOV-09 00:00
1202061470	DUP	MXR1	GAM12	20-MAR-10 11:11	DONE	CAN		25-FEB-10 00:00
1202061471	LCS	MXR1	GAM20	20-MAR-10 11:12	DONE	CAN		26-AUG-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965494**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248515001	SAMPLE	MXE1	1241	25-MAR-10 22:12	DONE		
248515002	SAMPLE	MXE1	1242	25-MAR-10 22:12	DUSE		
248515003	SAMPLE	MXE1	1243	25-MAR-10 22:12	DONE		
248517001	SAMPLE	MXE1	1244	25-MAR-10 22:12	DONE		
248521001	SAMPLE	MXE1	1245	25-MAR-10 22:12	DONE		
248521002	SAMPLE	MXE1	1246	25-MAR-10 22:12	DONE		
248521003	SAMPLE	MXE1	1247	25-MAR-10 22:12	DONE		
248521004	SAMPLE	MXE1	1248	25-MAR-10 22:12	DONE		
248521005	SAMPLE	MXE1	1249	25-MAR-10 22:13	DONE		
248521006	SAMPLE	MXE1	1250	25-MAR-10 22:13	DONE		
248521007	SAMPLE	MXE1	1251	25-MAR-10 22:13	DONE		
248521008	SAMPLE	MXE1	1252	25-MAR-10 22:13	DONE		
248521009	SAMPLE	MXE1	1253	25-MAR-10 22:13	DONE		
248521010	SAMPLE	MXE1	1254	25-MAR-10 22:13	DONE		
248521011	SAMPLE	MXE1	1255	25-MAR-10 22:13	DUSE		
248526001	SAMPLE	MXE1	1256	25-MAR-10 22:13	DONE		
1202071661	MB	MXE1	1217	26-MAR-10 07:43	DONE		
1202071662	DUP	MXE1	1218	26-MAR-10 07:43	DONE		
1202071663	LCS	MXE1	1219	26-MAR-10 07:43	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965495**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248515001	SAMPLE	MXE1	1075	25-MAR-10 16:55	DONE		
248515002	SAMPLE	MXE1	1076	25-MAR-10 16:55	DONE		
248515003	SAMPLE	MXE1	1031	25-MAR-10 18:40	DONE		
248517001	SAMPLE	MXE1	1033	25-MAR-10 18:40	DONE		
248521001	SAMPLE	MXE1	1035	25-MAR-10 18:40	DONE		
248521002	SAMPLE	MXE1	1036	25-MAR-10 18:40	DONE		
248521003	SAMPLE	MXE1	1013	25-MAR-10 20:23	DONE		
248521004	SAMPLE	MXE1	1014	25-MAR-10 20:23	DONE		
248521005	SAMPLE	MXE1	1016	25-MAR-10 20:23	DONE		
248521006	SAMPLE	MXE1	1017	25-MAR-10 20:23	DONE		
248521007	SAMPLE	MXE1	1018	25-MAR-10 20:23	DONE		
248521008	SAMPLE	MXE1	1019	25-MAR-10 20:23	DONE		
248521009	SAMPLE	MXE1	1020	25-MAR-10 20:23	DONE		
248521010	SAMPLE	MXE1	1022	25-MAR-10 20:23	DONE		
248521011	SAMPLE	MXE1	1023	25-MAR-10 20:23	DONE		
248526001	SAMPLE	MXE1	1024	25-MAR-10 20:23	DONE		
1202071664	MB	MXE1	1025	25-MAR-10 20:23	DONE		
1202071665	DUP	MXE1	1026	25-MAR-10 20:23	DONE		
1202071666	LCS	MXE1	1027	25-MAR-10 20:23	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965496**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248515001	SAMPLE	MXE1	1001	27-MAR-10 13:01	DONE		
248515002	SAMPLE	MXE1	1002	27-MAR-10 13:01	DONE		
248515003	SAMPLE	MXE1	1003	27-MAR-10 13:01	DONE		
248517001	SAMPLE	MXE1	1004	27-MAR-10 13:01	DONE		
248521001	SAMPLE	MXE1	1005	27-MAR-10 13:01	DONE		
248521002	SAMPLE	MXE1	1006	27-MAR-10 13:01	DONE		
248521003	SAMPLE	MXE1	1007	27-MAR-10 13:01	DONE		
248521004	SAMPLE	MXE1	1008	27-MAR-10 13:01	DONE		
248521005	SAMPLE	MXE1	1009	27-MAR-10 13:01	DONE		
248521006	SAMPLE	MXE1	1010	27-MAR-10 13:01	DONE		
248521011	SAMPLE	MXE1	1121	29-MAR-10 12:38	DONE		
248526001	SAMPLE	MXE1	1122	29-MAR-10 12:38	DONE		
1202071667	MB	MXE1	1123	29-MAR-10 12:38	DONE		
1202071668	DUP	MXE1	1124	29-MAR-10 12:38	DONE		
1202071669	LCS	MXE1	1125	29-MAR-10 12:38	DONE		
248521007	SAMPLE	MXE1	1126	29-MAR-10 12:38	DONE		
248521008	SAMPLE	MXE1	1127	29-MAR-10 12:38	DONE		
248521009	SAMPLE	MXE1	1130	29-MAR-10 12:38	DONE		
248521010	SAMPLE	MXE1	1131	29-MAR-10 12:38	DONE		

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
248515001	SAMPLE	KXK2	LSCPINK		29-MAR-2010 14:07	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248515002	SAMPLE	KXK2	LSCPINK		29-MAR-2010 15:00	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248515003	SAMPLE	KXK2	LSCPINK		29-MAR-2010 15:53	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248517001	SAMPLE	KXK2	LSCPINK		29-MAR-2010 16:45	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521001	SAMPLE	KXK2	LSCPINK		29-MAR-2010 17:38	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521002	SAMPLE	KXK2	LSCPINK		29-MAR-2010 18:30	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521003	SAMPLE	KXK2	LSCPINK		29-MAR-2010 19:23	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521004	SAMPLE	KXK2	LSCPINK		29-MAR-2010 20:15	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521005	SAMPLE	KXK2	LSCPINK		29-MAR-2010 21:08	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521006	SAMPLE	KXK2	LSCPINK		29-MAR-2010 22:00	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521007	SAMPLE	KXK2	LSCPINK		29-MAR-2010 22:53	964063	**DONE**	10mL DW/13mL Ecoscint	21-AUG-2009

							Ultra	
248521008	SAMPLE	KXK2	LSCPINK	29-MAR-2010 23:45	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521009	SAMPLE	KXK2	LSCPINK	30-MAR-2010 01:53	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521010	SAMPLE	KXK2	LSCPINK	30-MAR-2010 02:46	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248521011	SAMPLE	KXK2	LSCPINK	30-MAR-2010 03:38	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
248526001	SAMPLE	KXK2	LSCPINK	30-MAR-2010 04:31	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
1202068228	MB	KXK2	LSCPINK	30-MAR-2010 05:24	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
1202068229	DUP	KXK2	LSCPINK	30-MAR-2010 06:17	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009
1202068230	LCS	KXK2	LSCPINK	30-MAR-2010 07:09	964063	**DONE**	10mL DW/13mL Ecoscint Ultra	21-AUG-2009

Version 1.1 9/5/05
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